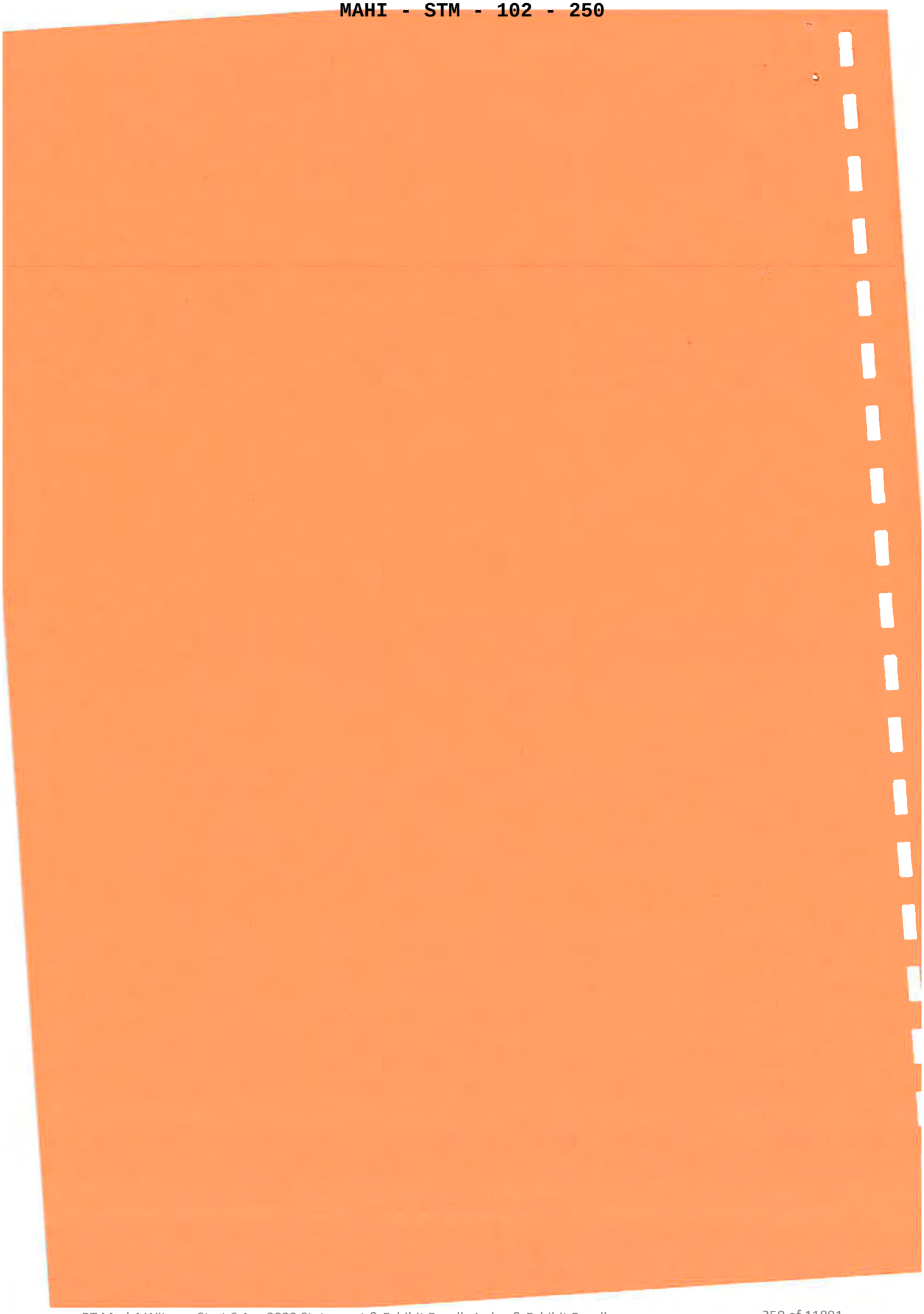
Department of Health, Social Services and Public Safety

An Roinn Sláinte, Seirbhísí Sóisialta agus Sábháilteachta Poiblí

Review of the Occupational Therapy Workforce

Final Report

November 2002



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EXECUTIVE SUMMARY

In September 2001, the Department of Health, Social Services and Public Safety (DHSSPS) commenced a series of uni-professional workforce reviews, which, over the period of one year, would cover the 15 main clinical professions within the Health and Personal Social Services (HPSS). There were a number of drivers behind the initiative and these included, the publication of the Hayes Report on the future of Acute Hospital Services, and the DHSSPS Consultation document 'The Employer of Choice'. Both documents highlighted the urgent need to put structures in place that will support workforce planning within and across all of the HPSS Professions. While it was determined that the initiatives would, at this stage, be taken forward on a uni-professional basis, the information and recommendations from this work would provide an important baseline in terms of developing workforce planning within HPSS across service sectors and professions.

Occupational Therapy (OT) was the fourth clinical profession to be included in the workforce review initiative.

Section 1: Introduction

The document presented sets out a comprehensive review of the HPSS OT workforce. The review was undertaken during the period October 2001 – February 2002 and was co-ordinated by a Project Group, which comprised of representatives from the DHSSPS, service providers, education, commissioners, and staff side. The content of the report includes background details (including terms of reference), the project methodology, a detailed profile of the current OT workforce, a projection of the supply and demand for OT's within the HPSS workforce over the 5-year period 2002 – 2006 and recommendations to address issues arising from the review.

Section 2: Background

The principal focus of the review was to provide the DHSSPS, and service providers and commissioners, with information concerning recruitment and retention issues within the Occupational Therapy workforce, and a projection of supply and demand within the profession. This information is vital to assist the Department in developing strategies that will ensure that the correct numbers of therapists are trained, in place, and working effectively to offer the maximum benefit to patients and clients.

In considering the above, it is also important to reflect on the current health policy context for the delivery of health and social care services in the future. A number of strategic documents have been reviewed and highlight the focus now being given to the delivery of high quality accessible care, with the development of the HPSS workforce being key to achieving this.

Specifically in relation to Occupational Therapy, it is evident that there have been difficulties, both across the UK and within the ROI, in relation to the recruitment and retention of staff. Levels of remuneration, high caseloads, lack of access to continuing professional development have been highlighted as impacting on the recruitment and retention of OT staff within the health service. There is also increasing demand for therapists as a total group, evidenced by the

target set of 6,500 more therapy staff within the NHS in England and Wales by 2004 and the projected requirement for almost 1,425 OT's (from the current base of 550 staff) in the ROI by 2015. Reasons cited for increasing demands include the increasing elderly population, impact of legislation, increasing numbers of children with special needs and changes in service delivery.

Section 3: Terms of Reference and Methodology

The terms of reference for the review were as follows:

- To provide a profile of the current OT workforce
- To provide an analysis of current and future recruitment and retention issues, including pay, career structure, working arrangements
- To provide a prediction of the supply of, and demand for, Occupational Therapists over the next 5 years.

The methodology applied to achieve the above comprised of a number of elements, including, literature review, analysis of current workforce data, questionnaire to service managers, interviews with key informants and focus groups.

One of the main outcomes of the review is to assist the Department in reviewing the number of student places that need to be commissioned from education locally to meet future service demands.

Section 4: Findings

The main findings in relation to the current HPSS OT workforce profile and trends within this workforce are outlined in Section 4 of the report. The analysis of data indicates that there are 525 Occupational Therapists in the HPSS, with 97% of staff female. The workforce is relatively young, with 72% under the age of 40 years. There has only been a small increase in part-time working within the profession, with 72% of staff full-time in 2001, compared to 74% in 1998. A review of the skill mix within the profession indicates that the majority of posts (52%) are graded at the highest clinical grade (Senior 1). Only 16% of posts are at the new graduate / entry grade (Basic Grade) and 15% of posts are at the management grades. All of the OT providers within the HPSS in NI employ support staff in OT Helper / Assistant / Technical Instructor roles. A total of 126 such support staff are in post across NI.

A review of vacancies at September 2001 indicated a 9% vacancy rate across the service in NI. This equates to 53 posts which managers are having difficulty filling or are unfilled. More recent evidence from the interviews with managers and through the project group indicates that this problem is not decreasing (a further snap shot of vacancies in December 2001 indicated 60 vacancies).

A questionnaire forwarded to managers provided details on staff leaving the profession, and recruitment of staff who have graduated or been previously working outside NI. This information informed the supply assumptions detailed in the workforce projections contained in the report. The DHSSPS Project Support Analysis Branch has also been able to supply data

on average retirement age within the profession (average 58 years), and leavers for other reasons. These details have also been used to inform the projections contained in Section 7 of the report.

Sections 5 & 6: Key Findings In Interviews and Focus Groups – Supply Issues and Demand Issues

Twenty two key informant interviews and eight focus groups were carried out to gather qualitative data on issues impacting on the recruitment and retention of Occupational Therapists within the HPSS workforce. The detailed findings are contained within sections 5 and 6 of the report.

In relation to the supply of therapists, the following issues were highlighted:

- Students: The University of Ulster provided details on student numbers and first destination survey results of graduates over the past three years. On average, only 58% of students are taking up a position in NI after graduation. Issues identified that are attracting new graduates to posts outside of NI included, students undertaking placements in GB and being offered attractive posts on graduation to return, better choice of posts elsewhere, opportunity for travel on graduation.
- Recruitment: The majority of Trusts are finding it difficult to recruit to posts, particularly in the specialist higher clinical grade (Senior I Grade). Difficulties were also reported in relation to other grades (Head III, Basic Grade posts particularly during December up to graduation in May, and some Senior II specialties, e.g. learning disability, mental health). The geographical position of some Trusts is a problem, (e.g. within North & West Belfast, Royal Group of Hospitals and some rural areas). All Trusts reported that, with the exception of basic grade posts (in the period after graduation), there are either limited or no applicants for many posts advertised. Competition between Trusts was highlighted as an increasing issue within HPSS in the recruitment of staff.
- Temporary Posts / Bank / Agency: All Trusts are finding it extremely difficult to recruit to temporary posts. Limited success was also reported when Trusts have attempted to recruit for temporary staff via GB based agencies. Some Trusts have attempted to create a bank of staff to cover temporary requirements, but little success was reported.
- Family friendly policies: With an almost exclusively female workforce, all Trusts are experiencing some increase in requests for flexible working and career breaks. Many Trusts indicated that there are not able to facilitate all requests at present, due to the difficulties in replacing hours reduced.
- Career Progression / CPD: Many respondents indicated that lack of opportunities for career progression was a key area of concern amongst staff, particularly once Senior I grade was achieved. There are currently no further opportunities for clinical career progression beyond Senior I and the only route is into management. For many this later option is not attractive. The introduction of discretionary points has made no impact on this issue. Lack of support in terms of time and funding for CPD was also highlighted as a major issue of concern. Many comments were received concerning the need for a regional approach to assessing, prioritising and resourcing CPD for all PAMS.

- Accommodation: A significant number of respondents indicated that the poor accommodation that many staff are working in was a contributory factor in low moral in the workforce.

The following areas of demand were highlighted through the interviews and focus groups.

- Current services: Increasing demands are being experienced from a number of service areas including hospital inpatient services, wheelchair services, home based rehabilitation, paediatrics, community mental health and learning disability. While respondents indicated that they welcomed their expanding role in a number of service areas (e.g. neurology, addictions, child and adolescent psychiatry, accident and emergency) there was concern that the service was now being 'spread too thinly', due to inadequate resources.
- Administration: All respondents indicated that paperwork and general administration was taking up a considerable amount of therapists' time, to the detriment of time spent with patients and clients. Few feel that they have access to adequate administrative support or IT which would enable them to carry out their clinical work more efficiently.
- CPD: There is an expectation that at some time in the future the new Health Professions Council will set down mandatory requirements for CPD time for PAMS. This could potentially be 10 sessions per annum.
- Clinical placements: While the commitment to supporting clinical placements was clear from respondents, many are finding it difficult to accommodate students because of high caseloads and the amount of time that student supervision required. The student experience is also limited because of the small number of staff in some specialist service areas. The University of Ulster would facilitate all placements in NI, however, this is not possible at present.
- Increasing patient expectations: Respondents commented that patients are now more 'vocal' about their 'right' to a service. As a consequence staff have to spend increasing amounts of time dealing with inquiries or complaints.
- Legislation: The introduction of legislation has in the past, and will continue to have an impact on the work of Occupational Therapists. (e.g. Disability Discrimination Act 1995, Education Order 1995 and the anticipated Special Education and Disability Bill, 2003/04). It was highlighted that this needs to be accounted for in the workforce planning for Occupational Therapists.
- New Ways of Working: New initiatives that Occupational Therapists have become involved in include, assessment of patients at Accident and Emergency (to help prevent admission) and organisation of assessment clinics as a way of providing services to a greater number of people.

Section 7: Supply and Demand Projections

Section 7 of the report provides details on the estimated supply and demand projections of Occupational Therapists within HPSS over the period 2002 – 2006. The supply figures have been developed from the data gathered and from discussions with the project group members. The figures include, projected numbers of new graduates joining HPSS (at current levels), individuals being recruited from outside NI, staffing leaving the HPSS due to retirement and

other reasons and the impact of family friendly policies. The data indicates that, if current trends continue, there will be an estimated 6% increase in the supply of therapists to the HPSS over the next five years.

The demand for additional Occupational Therapists into HPSS over the five-year period has been presented under three scenarios. These are:

1. ***Agreed policy context and resource approved / identified:*** This refers to service developments that have been agreed within the current HPSS policy framework with resources identified, or are likely to be approved over the course of the 5 year workforce plan. This includes, additional posts within the Cancer Centres, Regional Brain Injury Unit, Regional Medium Secure Unit, Acute services, and as a result of the establishment of Local Health and Social Care Groups.

2. ***Future policy context that may potentially attract investment:*** This refers to service developments that have been identified via key informant interviews and the project group that potentially may be supported over the next five years, although resources have yet to be identified. Areas included are additional investment in multidisciplinary support services in the community as a result of the community care review. Also, further support for posts in the areas of brain injury (community infrastructure), addressing community waiting lists, meeting demands within paediatrics, addressing resource for continuing professional development and the development of the consultant role.

3. ***Unmet demand:*** This refers to additional unmet demands within the current services, identified via the key informant interviews and project group. It is acknowledged that there is currently no policy context or resource identified to meet the demand areas identified. Included in this category are additional support for hospital services, learning disability, mental health and health promotion.

In considering initially within this report the demands for additional staff in scenarios 1and 2 the projections used provide for a 17% increase in OT staffing, in addition to the requirement to address the current vacancy level of approximately 53 posts.

In terms of the impact of this level of demand, if the current trend continues in the supply of staff, over the period 2002 – 2006:

- there will be an estimated shortfall of 44 staff after 5 years within scenario 1, rising to a shortfall of 108 (after 5 years) if scenario 2 is included.

In terms of areas that might impact on this shortfall:

- If more graduates are recruited to the HPSS workforce (e.g. 70% compared with the current 58%), an additional 26 therapists would be available. If a reduction in leavers (for reasons other than retirement) was achieved (e.g. by 30%) a further 27 staff would remain in the workforce). If the number of graduate places at UU was increased by 10, a further 6 therapists per annum would be available to the HPSS workforce from 2006. The net impact of the above would be to provide an additional 59 therapists within the workforce which would go some way towards addressing the shortfall identified above.

The figures confirm however that there is projected to be a significant shortfall in the HPSS Occupational Therapy workforce over the next five years. This would be further increased if scenario 3 was included.

A number of recommendations are outlined below that are aimed at addressing the shortage in the workforce identified.

Section 8: Recommendations

The following recommendations have been concluded from the review:

Increase the number of students taking up posts in NI after graduation – Target 70% of graduates:

- It is recommended that Trusts should project their workforce requirements for the year ahead and recruit from final year UU students, commencing the process early (prior to graduations) in November / December. This will mean Trusts may also have to consider recruiting to additional junior grade posts to secure more qualified Occupational Therapists within the workforce.
- Trusts should review their skill mix to ensure that junior grade posts are available to attract students into the HPSS, particularly before graduation. Trusts should also review their skill mix to develop future posts at Basic Grade and Senior II posts wherever possible.
- A follow up to the focus group work with 4th year UU students should be undertaken to provide further information about how to attract more graduates into HPSS.
- Further discussions are required on incentives to encourage new graduates to take up posts within NI.

Clinical Placements:

- All Trusts should seek to facilitate clinical placements in NI to reduce the need for UU students to travel to GB for placements. The University, Boards and Trusts will need to take forward discussions on how this can be achieved (overcoming current barriers) within the context of current service level agreements.
- The University and Trusts should work together to ensure that as many third and fourth year student placements as possible are provided within NI. This will include discussions on more flexible timetabling of placements to enable service providers to accommodate as many students as possible.

Additional Student Places:

- The Department should take forward discussions with UU to review an increase in the number of undergraduate places at UU.
- The feasibility of the development of an accelerated entry programme for qualification as an Occupational Therapist should be explored (This should include the opportunity for support staff to under training to qualify as an Occupational Therapist).

Attracting other qualified Occupational Therapists into the workforce:

- The Department should explore the potential for a return to practice initiative by assessing levels of interest through local advertisement.
- The Department should seek to provide information on opportunities within NI for NI students who are currently studying in GB. This should be co-ordinated regionally.

Retention of current workforce:

- Further work needs to be taken forward to review the implementation and impact on the workforce of family friendly policies. There was a view from some members of the project group that the figures presented in the report (the impact of family friendly policies and leavers), are conservative and require further research.
- Further work is required to identify initiatives that will lead to the retention of therapists within the workforce.
- The Department should take to take forward the development of the PAMS consultant role to acknowledge high levels of clinical expertise within the profession and remunerate accordingly.
- Consideration needs to be given to the establishment of a scheme of rotation appointments for newly qualified staff, to provide the experience many desire of different clinical settings.

Continuing Professional Development Opportunities

- The Department should take forward initiatives to enhance the continuing professional development opportunities for Occupational Therapists. This will include developing a regional strategy to identify training and development needs and investment in opportunities locally. The development of a regional centre for CPD for PAMS should be taken forward.

Unqualified / support staff

- Work needs to be taken forward to support the development of the role of Occupational Therapy support staff. This includes regional support to make provision for opportunities to develop the skills of assistants to NVQ level 3 and local providers considering how the role of unqualified staff can be developed to assist in addressing demands within the current service.
- The provision of administrative and IT support to therapists needs further reviewed by employers, given the poor levels reported by participants in the workforce review.

Further Review of the Workforce

- The project group should be convened on an annual basis to review and update the workforce plan for occupational therapists.

Section 9: Conclusion

In conclusion, it must be emphasised that this review provides only a baseline from which an action plan must be developed and further work taken forward to enable the development and implementation of the recommendations outlined. In addition, the workforce data and projections presented must be subject to regular review and updating as further and more up to date information becomes available. By actively reviewing the workforce planning model, a

mechanism exists to inform strategic decision making about the Occupational Therapy workforce within HPSS for the future.

1. INTRODUCTION

Occupational Therapists treat people with physical and /or psychological illness or disability through specific treatment mediums selected for the purpose of enabling individuals to reach maximum level of function and independence in all aspects of life.

They assess the physical, psychological and social functions of the individual, identify areas of dysfunction and involve the individual in a structured programme of treatment designed to overcome disability.

The treatment mediums selected are specific to the individual's needs and lifestyle and focus on self-maintenance, work and leisure. (13)

This report outlines a comprehensive review of the Occupational Therapy workforce within Health and Personal Social Services in N. Ireland. The review was undertaken during the period October 2001 – February 2002 and was co-ordinated by a Project Group, which comprised of representatives of the DHSSPS, HPSS commissioners and providers, education and staff side (Appendix 1– Membership). The report is presented by the Project Group and outlines:

- The background to the project
- The project methodology
- A detailed profile of the HPSS occupational therapy workforce, recruitment and retention issues identified in relation to the workforce and a projection of the supply and demand for therapists over the five year period 2002 – 2006.

The report concludes with a list of recommendations from the Project Group, which seek to contribute to the addressing current and future workforce issues within the N.I. HPSS occupational therapy workforce.

2. BACKGROUND

The principle focus of the review has been to provide a profile of the current occupational therapy workforce within the HPSS in N.I. and investigate, through a range of survey tools, key issues and factors regarding the supply of and demand for therapists over the period 2002 - 2006. The report culminates in highlighting key conclusions and recommendations, which will assist the Department in developing strategies that will ensure the correct number of occupational therapists are in place, working in the most effective way, to offer maximum benefit to the HPSS healthcare team and ultimately patients and clients. The development of such strategies must also of course consider occupational therapy services within the context of national, regional and local strategies and priorities for healthcare services as a whole. A brief review of some of the relevant policy areas is outlined below.

2.1 Health Policy Context

The overall aim of the Department of Health, Social Services and Public Safety is to improve the health and wellbeing of the people of Northern Ireland. It seeks to achieve this is ways which:

- Are fair and equitable, targeting resources towards those in greatest need.
- Listen to the views of users, carers and the public
- Continuously improve the quality and clinical excellence of services
- Stimulate and support the formation of partnerships across all sectors to promote and improve health and wellbeing (1).

It must also seek to ensure the effectiveness of service provision, i.e. to secure the greatest possible health gain from available resources. All HPSS employees have a central role in achieving this overall effectiveness and it is essential to develop strategies that can ensure the correct numbers of these employees are in place, working on an integrated basis and in the most effective way, offering maximum benefit to the healthcare team and patients and clients. This has been reinforced by the Report produced by the Acute Services Review Group (May 2001) (2) which highlights the urgent need for improved workforce planning arrangements within HPSS including a robust assessment of service needs and the skills and staff required to deliver these services efficiently and effectively. The report also highlighted that there is the need to build up adequate contingency or even over supply of adequately prepared professionals so as to ensure that there is no repeat of the difficulties of the past.

It is within this context that the workforce review for occupational therapists is presented.

2.2 Great Britain and Northern Ireland Context

The current strategic focus for health and social services is detailed in 'The New NHS - Modern and Dependable' (3) which sets out the Government's vision for the National Health Service (NHS) in England. The Government plans for NHS modernisation are intended to ensure a high quality service that is clinically sound, cost-effective and equitable. The NHS white paper and subsequent quality consultation document (4) identified the requirement for consistent, high quality care throughout the health service and all health organisations, including primary care.

In line with the above, the Northern Ireland Executive in its Programme for Government 2001 –2004 (5) identified "Working for a Healthier people" as one of its five priorities and has stated that "we will work to reduce waiting lists, implement new management arrangements, and recruit additional front line staff".

The Programme focuses specifically on the following:

- reducing preventable diseases, ill health and health inequalities;
- ensuring that the environment supports healthy living and that recreational facilities are improved;
- modernising and improving hospital and primary care services to ensure more timely and effective care and treatment for patients;
- enabling those who suffer from disability, chronic, mental or terminal illness to live normal lives
- promoting the health and social development of children

The programme recognises that everyone has a right to timely quality care based on clinical and social care need and the system must be able to respond to assessed individual need. The programme also commits the Executive to addressing current workforce shortages within HPSS.

The document 'Priorities for Action' (6) details the DHSSPS planning priorities for 2001/2002, in the context of the Programme for Government as outlined above. These include:

- Increasing capacity and improving flexibility and responsiveness to meeting continuing demand.
- Improving access to services, particularly reducing waiting lists
- Tackling shortages of skilled staff, particularly in hard pressed specialised areas. This includes not only increases in the supply of qualified staff but also measures to improve recruitment and retention of staff within HPSS.
- Developing partnerships with other statutory and voluntary sector organisations.

A number of targets and objectives are set out in the document which outline how the Department expects HPSS to deliver to the Minister's priorities, within the context of the overall resources available, during 2001/02. Those that impact on occupational therapy services include:

Community Care and Acute Service

- to further develop bridging services between community, primary and acute care to ensure that acute admissions take place only where appropriate and patients are assured timely return to the community once acute treatment has been completed.
- to continue and build on good practice in developing innovative schemes such as step down and intermediate care.
- to reverse the trend of delivering the majority of care managed packages in institutional settings and provide an additional 230 care packages.
- to agree the service requirements for the new cancer centre by September 2001 and progress the development of Cancer Units and the Centre and the full implementation of the 1996 Campbell Report "Cancer Services: Investing in the Future"(7)

Maternity and Child Health

- to develop the regional children's palliative care service

Mental Health

- to increase the capacity and capability of primary and community care teams to manage mental health problems

Learning Disability

- To secure agreement on a long-term strategy to significantly reduce the number of long stay patient inappropriately remaining in hospital care.

Physical and Sensory Disability

- to establish a regional traumatic brain injury unit
- to facilitate early discharge from hospital to the community.
- provision of additional 100 wheelchairs in 2001/02 and an additional 20 OT staff.
- to reduce the numbers waiting for occupational therapy assessment for housing adaptation at April 2001 by 20% by March 2002.

Family Health Services

- to encourage a team approach in primary care, promote multi-disciplinary working and collaborative working

- to invest in services that substitute for services currently provided in secondary care
- to support primary care in its efforts to target health and social need
- to support services which deliver proven outcomes and have the capacity to be replicated elsewhere as best practice

Workforce

- to review the effectiveness of the current workforce planning mechanisms and introduce improvements to enhance the multi professional dimension to such activity.
- to ensure that recruitment and retention issues are addressed and that future workforce requirements are identified and linked to workforce planning activities.
- to address the need to increase the numbers of students in pre and post registration education in PAMS.

Partnerships with the voluntary and community sector

- to ensure that funding for the voluntary and community sector enables the sector to achieve sustainable outcomes in line with Boards and Trusts policies and objectives

2.3 Secondary Changes

In the provision of secondary services, the Acute Hospital Review Group Report 2001(2) is the most recent document to address the structure of the HPSS as a whole in Northern Ireland. The Report's key recommendations include:

- Giving primary care a more prominent role in service delivery and expanding the research base in primary care.
- Reorganising hospital services and treating them as a series of systems, rather than stand alone institutions
- Provide acute hospital services that are consultant delivered rather than consultant led
- Primary care organisations given the responsibility for the commissioning of community services and non-regional hospital services in the context of the strategic plan

While not providing specific comments concerning on occupational therapy services, the report does suggest that, in line with trends announced for the NHS in England, NI will require an additional 1000 therapists and other health professionals by 2010. It also emphasises the urgent need to undertake a major workforce planning exercise that covers the whole of HPSS.

2.4 Primary Care & Quality

Building the Way Forward in Primary Care (8) outlines new ways for health professionals to be involved in the delivery of HPSS services. The summary of the consultation on the future of primary care (9), details that there is general agreement on the need for the development of

primary care to provide a quality service to meet the growing demands on this sector. The arrangements, announcement by the Minster on 16th October 2001, (10) outline proposals to set up local health and social care groups, with primary care professional working in partnership with Health and Social Services Boards, Trusts and others in the planning, commissioning and delivery of services for the communities they service. The new arrangements will undoubtedly facilitate service development for PAMS and other professions, in that 'they will help stimulate innovation in the delivery of service are a local level' (10).

The Consultation Paper, "Best Practice - Best Care" (11), published in April 2001, focuses on the three interlocking strands of setting standards (improving services and practice), delivering services (ensuring local accountability) and improving monitoring and regulation of the services. The document sets out the Departments commitment to securing a more responsive, caring public service, raising the quality of HPSS and tackling underperformance

2.5 Public Health

In the UK, public health strategies have recently been produced for Scotland (Working together for a Healthier Scotland 1998) (14), Wales (Better Health –Better Wales 1998) (15) and England (Saving Lives: Our Healthier Nation 1999) (16).

In Northern Ireland these key public health issues are outlined in the strategic document Well into 2000: A positive agenda for Health and Social Well-being"(17) and the more recent public health document "Investing for Health"(18) The strategy recognises that our health is determined by social, economic and cultural environment and encourages professions to work with the community to promote health and well-being rather than focus on the treatment of ill health. It is clear that occupational therapists will have part to play in delivering to the objectives and targets that are outlined in the public health strategy.

2.6 The Importance of the Workforce

The underlying theme of effective and co-ordinated workforce planning is documented in a number of NHS documents in England, Wales and Northern Ireland. In the consultation paper "A Health Service for All Talents: Developing the NHS Workforce" (DoH, 2000) (19) the Department of Health acknowledge problems with the current workforce development and planning. The paper made a range of recommendations including improving training education and regulation, increasing staff numbers and changing career pathways whilst achieving better integration between workforce, service and financial planning. A National Workforce Development Unit, Care Group Workforce Teams and a Workforce Numbers Advisory Board will be established to implement the recommendations.

The paper 'Meeting the Challenge: A Strategy for the Allied Health Professionals' (DoH, 2000)(20) sets out the Government's Plans for developing and supporting these professions and the central role they have to play in developing the NHS Plan. Significant focus is placed within the document on investing in training, education and career development of all therapists.

The need for meaningful workforce planning at local and national levels in Northern Ireland has been highlighted consistently for a number of years. The consultation paper 'Acute Hospital Services Review' (Acute Service Review Group, 2001) reinforces the fact that over 70% of HPSS expenditure is on staffing, and therefore that it is critical for employers to have

in place a planning system to help managers set appropriate establishment levels. The report suggests that the main asset of the current system is "a skilled, dedicated, caring and motivated workforce." It highlights that the key issue in achieving change is the need to consider the impact of changes on the existing workforce, their need for training and support, and the development of new skills and work practices to meet the needs of the future. In developing the workforce to meet the challenges, the Review notes that emphasis should be placed on:

- Team working across professional and organisational boundaries;
- Flexible working to make the best use of the range of skills and knowledge that staff have;
- Patient focussed workforce planning and development, stemming from the needs of patients not professionals;
- Maximising the contribution of all staff to patient care, doing away with all barriers that say only doctors or nurses should provide particular types of care;
- Modernising education and training;
- Expanding the workforce to meet current and future demands.

The publication of the more recent DHSSPS consultation document 'The Employer of Choice' (DHSSPS, 2001) (21) outlined the commitment by the Department to improve services through attracting, retaining and developing the best staff. The paper outlined the key area that must be addressed as:

- Workforce planning;
- Recruitment, retention and return;
- Improved working lives;
- Equality and fairness;
- Education and training;
- Industrial relations.

It is within this health policy context that we examine the occupational therapy profession within Northern Ireland. The current and future demand issues within the profession are examined.

2.7 The Occupational Therapy Profession

The Parliament of the United Kingdom formally acknowledged the professional status of Occupational Therapists by setting up the Occupational Therapy Board through the Professions Supplementary to Medicine Act (1960.) This gives a considerable degree of professional autonomy to Occupational Therapists, enabling them to maintain their own professional discipline and standards of conduct and code of ethics and to set standards of education and training for entry into the workforce.

There are around 21,000 state registered occupational therapists in the United Kingdom (CPSM, 2000.)

2.8 Supply Issues

It has been widely accepted that recruiting and retaining basic grade occupational therapists is difficult and has been so for many years. (Blom-Cooper, 1989, Parker 1991, Kraeger and Walker, 1993, Public Sector Labour Market Survey, 1995, Spalding, 1997) (22,23,24). Blom-

Cooper's (1989) study found a vacancy rate of 25% among Basic Grade occupational therapists. Growing evidence has also been found of the difficulty in recruiting Senior II staff, with reported vacancy rates being higher. (Ferguson and Rugg, 2000) (25). This situation coexists with a rising demand for occupational therapists' services rendering any shortfall all the more acute. (PT'A' Staff Side Evidence, 1996, Social Services Inspectorate, 2000) (26,27).

PT'A' Staff Side Evidence (1996) suggested that about a fifth (21%) of therapists change their employers annually. Replacing such staff is expensive, costing some three-quarters of any replacement's first year salary. (Furnham, 1997) The issues associated therefore with the supply of occupational therapy staff are outlined below (28).

Recruitment and Retention

Turnover rates among qualified PAMS are reported at 16% and rising, with occupational therapists characterised within the overall picture as a 'pocket of difficulty.' (Rigby, 1996) (29). Buchan and Pike (1989) (30) found losses to the National Health Service of 24% among occupational therapists.

Longitudinal studies of British occupational therapists' initial entry into practice have found that various reasons attract Basic Grades to their first post. Rugg (1996) (31) found that supervision and access to professional development opportunities were most significant. Atkinson and Stewart (1997) (32) found that personal ties influenced a Basic Grade's first destination, as did clinical rotation and professional development.

In the examination of attrition, Bailey's (1990a) (33) study of personal and employment factors of 696 therapists, found that a fifth of those who left practice had been in practice for less than five years. Employment-related issues associated with attrition were the amount of bureaucracy encountered at work and the emphasis placed upon paperwork, high caseloads and financial imperatives. Dissatisfaction with salary levels, lack of respect from other colleagues and the need to justify the occupational therapist's role constantly were also associated with attrition. Rugg (1999) (34) found that retention of Basic Grade therapists was linked to issues of support, resources, success with clients, and job satisfaction. (Rugg, 1999)

The only study of attrition to be completed amongst occupational therapists in Northern Ireland (1991) (35) found that fundamental to occupational therapists staying in the post was their degree of job satisfaction. Four specific factors of job satisfaction were established: multiprofessional teamwork, adequate staffing, further training/retraining and involvement in decision-making. High weightings were also given to lack of resources, unrealistic workload, and lack of professional status.

The shortage of therapists was recognised beyond doubt in the NHS Plan (DoH, 2000) (36). It highlights a commitment to PAMS staff suggesting that by 2004 there will be:

- Over 6,500 more therapists,
- 4,450 more therapists being trained and
- new therapist Consultant posts.

ROI

In the ROI, the report 'Current and Future Supply and Demand conditions in the Labour Market for Certain Health Professional Therapists' (Bacon et al) (37) highlighted the shortage of qualified physiotherapists, occupational therapist and speech therapists. The report identified that there are an estimated 550 OT 's working across all sectors in the ROI (approximately 190 work in the public health sector), with a vacancy rate of around 19%. There is no statutory requirement to be state registered in the ROI and therefore precise figures are not available. The report concluded that a major expansion is essential in the number of therapy professionals over the next fifteen years to meet service demands. In relation to occupational therapy, Bacon suggested an additional 875 OT staff would be required by 2015, bringing the total number working across all sectors to 1425. The report's recommendations include:

- An annual increase of 75 places at undergraduate level in occupational therapy;
- Provision of sufficient clinical placements;
- Concerted recruitment from overseas.

The report also concluded that appropriate courses should be made available in sufficient numbers to enable assistant therapy grades to be expanded significantly to free some of the time of qualified therapists.

There may be an impact in NI as a result of the above service developments in the ROI. For example, on a positive note, the increase in student places in the ROI could free up some places locally at UU for NI students. However there will be increased demand for student placements throughout the whole of Ireland and incentives are likely to continue (at least in the short term) to be offered to NI graduates to take up posts in the ROI.

Remuneration

The pay structure for Occupational therapists provides 3 main clinical grades (Basis Grade / Senior II / Senior I) followed by Head grade (VI - 1) (38). Management grades are identified at Head. The previous 'Area' role is now covered by the PAMS Commissioner role now established within a number of the Boards. The salary structure is the same to that applied to the other PAMS professions of Physiotherapy, Chiropody, Orthoptists, Dieticians and Radiographers, with pay awards determined by the National Review Body for Nursing Staff, Midwives, Health Visitors and Professions Allied to Medicine. Discretionary points have recently been introduced as a mechanism for staff to achieve recognition for having developed their role and skills. Staff are eligible to apply for the discretionary points after serving one year at the top of their scale. There are some variances in the terms and conditions between some Trusts, e.g. some Trust contracts do not include clinical supervisors allowances while others do.

Like other NHS professions, the remuneration for Occupational Therapists will come under new arrangements proposed under Agenda for Change, which will link individual pay progression to the development of skills and knowledge. It is anticipated that this will assist in defining career pathways and will allow staff to move into more advanced practitioner roles (with appropriate remuneration), without requiring a move into management. The timeframe

for the introduction of these arrangements within NI HPSS has not yet been finalised, however it will be taken forward during the 5 year timeframe presented in the report.

Education and Training

A number of strategic documents in England and Wales review education, training and development for health professionals. 'Educating and Training the Future Health Professional Workforce for England' (NAO, 2001) (39,40) concluded that achieving the planned expansion of the workforce set out in the NHS Plan depended on increased investment in teaching staff and accommodation at higher education institutions, achieving value for money in the provision of training courses, a reduction in student attrition rates and a large number of good quality practice placements.

The reports also noted that the availability of suitable practice placements was a critical limiting factor on the number of training places that can be commissioned, and given current staffing levels, most Hospitals are close to or already have reached their capacity for supervising students. In England there have also been problems with recruitment and retention for undergraduate places. There has been an average of 20% under recruitment against places and student attrition rates for occupational therapy range from 7-12%. As a result of this the Department of Health's 'Human Resource Performance Framework' has set targets to reduce attrition rates with the 2000/2001 intake to not exceed 10% in pre-registration training. In Northern Ireland the overall number of university places for occupational therapy has remained at 50 per annum. The recruitment of students has not been an issue, with 10 applicants for every place in the last three years. Student attrition rates within NI are also within the target set by the Department of Health, with an average of 7% attrition per intake.

Family Friendly Policies

The predominantly female occupational therapy workforce (97%) within Northern Ireland has implications for workforce planning, with requirements for both part-time working and the need for family friendly working policies. The importance of having regard for the needs of a predominantly female workforce is well documented in the Hayes Review (2001.)

2.9 Demand Issues

Acknowledging the current and future demand issues within HPSS as they relate to occupational therapists is essential in workforce planning and projecting future requirements of staff. Some of the demand issues relevant to the OT profession are identified below.

Societal Changes

The Department for Education and Employment, Employers Skills Survey Report (2000) (41) highlighted that there has been a steady growth in demand that is expected to continue in the medium term for the services of Professions Allied to Medicine. Factors contributing to the demand were highlighted as the ageing population, and the rising expectations of patients.

The average life span is increasing by about two years every decade (Church et al, 1995) (42) and OPCS data indicates that 16% of the population are aged 65 or more. The number of people in this age category has also increased by 6.15% during the last 10 years. Older people

have a higher usage of all health services, consequently Occupational Therapists will need to expand their knowledge of the multiple pathology associated with ageing and the increased need for active rehabilitation in the older patient group.

Advances in medicine and technology have also impacted upon the demand for occupational therapy services. People with certain conditions such as life-limiting and terminal illnesses are now surviving, where previously they would not have done. Not only is there an increase in the numbers of occupational therapists required as a result of this, but an increase in the amount of time spent with a patient with a disabling condition, which must be acknowledged in workforce planning.

Legislative Changes

The Department for Education and Employment, Employers Skills Survey Report (2000) also highlighted that the steady growth in demand for the services of Professions Allied to Medicine, was owing to Government Reforms and the introduction of clinical governance.

Legislation, both current and anticipated in the future also impacts upon the way the occupational therapy service is provided:

- **Community Care Act (1990)**- The ethos of providing care in the community has resulted in increased referrals to the community staff.
- **Disability Discrimination Act (1995)** - Occupational therapists are likely to be called on to act as advisers to organisations who will need to meet the requirements of this Act by 2004, particularly in relation to providing disabled access to premises.
- **Education (NI) Order 1996** – Introduced new arrangements in relation to statementing of children with special education needs (SEN) and required mainstream schools to prevent pupils with SEN from being less favourably treated than other pupils.
- **Special Education Needs and Disability Bill (2003/4)**- This new legislation which is likely to be passed by the Assembly in 2003/04, will provide more opportunity for parents to opt to place children with special education needs in mainstream schools with the recommended support required, rather than within a special school. (The Bill will remove 'economic grounds' as a reason for Boards not recommending placement of special needs children in mainstream schools). This will potentially have logistical and resource implications for paediatric occupational therapists who may be required to provide services to children placed in scattered mainstream schools.
- **Housing Order (1992)** – The Order is up for review in 2002 and this is likely to result in a review of the OT input into assessments for private housing disabled facility grants.

Changes in Service Delivery

Dramatic reductions in the length of stay in an acute hospital unit, for all patients have occurred over the last decade. In part the pressure has been economic, a need to increase throughput and therefore efficiency, but developments in surgical techniques, advances in pharmacology and changes in the philosophy of care have contributed to this. Undoubtedly this

has a dramatic effect on occupational therapy roles in both the hospital and community. While pressures in the community services are evident from increasing waiting lists for services, hospital therapists are also experiencing increasing demands. Rehabilitation and discharge planning arrangements begin on day one of hospital admission and hospital OT staff are under pressure to assess and treat patients quickly to facilitate earlier discharge and enable beds to be reoccupied.

Education / Children's services

The increased demand for therapy services within educational settings is evidenced by figures provided by the South Eastern Education and Library Board. During the period 1985 to 2001, there was a 114% increase in the number of children attending special schools in the area (604 to 1291). Between 1997 and 2001, the number of children with a statement of special education needs increased by 14% (2592 to 2943). In addition, a significant number of children with special education needs do not receive a statement, but are supported through specialist inputs within mainstream education. This increased demand in the educational setting throughout NI over the past number of years has not been matched by increased investment in therapy services to the schools

The NI Education and Library Boards are currently carrying out a review of the demand for services from children identified as having special needs within the education setting. It has been acknowledged that there has been a significant increase in the number of children with special needs and it is also clear that current services, in particular in areas such as Speech and Language Therapy and OT have not been resourced to keep pace with this demand. Figures provided by the SEELB illustrate such demand with a 114% increase in the number of children attending special schools in the area (604 to 1291) during the period 1985 to 2001. Between 1997 and 2001, the number of children with a statement of their special education needs also increased by 14% (2592 to 2943). A significant percentage of these children require occupational therapy input.

Primary Care

The DHSSPS position paper 'Primary care- Professions Allied to Medicine' (43) was produced to help inform key stakeholders of the contribution that the PAMS currently make and their potentially greater role in ensuring high quality primary care services. It endorses the priority given to breaking down traditional boundaries so that all care professionals can use their skills in the most appropriate way to treat and care for people and to develop new and innovative models of service delivery. However in order for this to happen it is argued that:

- It must be recognised that PAMS are key contributors across HPSS services including health promotion and prevention.
- They must be given equal status at all levels to enable them to become full partners within primary care settings, including opportunities, support and resources.
- There must be sustained investment in continuing development and training of PAMS to take on new roles and to maintain and further develop skills.
- PAMS must be given equal access at all levels to opportunities and systems to facilitate their research and development.

The Regional Strategic Framework for PAMS in N.I. (13) also outlines that :

- there must be greater representation of the Professions Allied to Medicine to influence the decision making process in strategic planning, policy formulation, commissioning and in the general management of the HPSS.

Occupational therapists will also want to ensure that they take their place amongst other health professions, in playing a full and active role in the new arrangements proposed for primary care, through the establishment of the Local Health and Social Care Groups from April 2002.

Cancer Services

The NHS Cancer Plan (DoH, 2000) (44) and Calman-Hine Report (NHS Executive, 1995) (45) were published with the aim to create a network of cancer care within England and Wales so that every patient wherever he or she lives, receives a uniformly high standard of care.

The Campbell Report (1996) in Northern Ireland highlighted that treatment by specialist, multi-disciplinary teams leads to better outcomes for patients and indicated that "radical changes" need to occur to the current system to ensure rapid access to cancer services. Full implementation of the Report's recommendations would improve cancer survival rates by 10%. It was felt however that staff shortages were inhibiting the implementation of the strategy and therefore restricting the extent to which the cancer services could be made available outside the Belfast area. It was proposed that cancer services should be provided at one regional cancer centre, and four additional cancer units, one from each Boards area should be created to service their catchment populations. The progression of the development of the Cancer Units and Cancer Centre in line with the Campbell report, are one of the key objectives in both the Acute Services Review (2000) and Priorities For Action (2001) stating that Boards should agree the service requirements for the new Cancer Centre by September 2001. Occupational Therapists will form part of the multi-disciplinary services to be taken forward.

Role Expansion

The Exploring New Roles in Practice (ENRiP) (46) database which mapped new role development in 40 acute Trusts in England, identified new occupational therapy roles in a variety of services (SCHARR, 1997) Many of these new roles involved practitioners working across the traditional boundaries between medicine, physiotherapy, nursing and occupational therapy. For example, pressure on beds and the need to reduce the time spent in Hospital led some Trusts to develop new roles for occupational therapists in Accident and Emergency Departments to prevent inappropriate admissions. Other Trusts were developing specialist roles for occupational therapists in renal medicine and cardiac rehabilitation. These developments must be acknowledged within future workforce planning.

Continuing Professional Development

In the UK, although there has been no statutory requirement, CPD the code of professional conduct makes it clear that all Occupational Therapists shall be personally responsible for maintaining and developing their personal professional competence. It is generally accepted that Therapists should undertake 10 sessions per annum for such activity. The view is that this will ultimately become mandatory when the Health Professions Council (HPC) replaces CPSM

as the statutory body for occupational therapists, in 2002. It is suggested that thirty-five hours would serve as an indication of a minimum level of CPD activity. (It is noted that a Masters in Advance Practice in OT is available at UU, however the uptake of the course is small due to difficulties OT staff have in securing funding and the required time off for study.

Research

In the UK, although there has been no statutory requirement, the Code of Ethics and Professional Conduct (COT, 2000) makes it clear that Occupational Therapists must continue to maintain and advance their knowledge and skills throughout their career. The recent College of Occupational Therapists' Research and Development Strategic Vision and Action Plan (Ilott and White, 2001) (47) acknowledges the centrality of research to occupational therapy practice. Unlike previous reports the Plan emphasises the individual requirement to ensure ownership, effective action and quality outcomes. Members are expected to 'adhere to the code of Ethics and Professional Conduct for Occupational Therapists' and 'have a duty to ensure that wherever possible their professional practice is evidence based and consistent with established research findings.' The plan also sets targets for improved involvement of occupational therapists in research, as follows:

- 1% of occupational therapists be research leaders;
- 4.2% of students graduating should receive capability funding to ensure adequate PhD output in occupational therapy.

A recent report by Curtin and Jaramazovic (2001) (48) indicates occupational therapists commitment to research and further development. The research respondents were overwhelmingly positive about EBP. However several factors acted as barriers to the successful development of EBP. Time was reported in 94.5% of cases, departmental issues such as workloads and insufficient staffing were reported in 50.8% of cases, and resources such as lack of access to appropriate IT was reported in 55.2% of cases. These factors need to be taken cognisance of if the effective training and development of staff is to be reached.

In NI a recent report by the Research and Development Office (49) highlighted the need to create capacity for PAMS research locally, with the requirement for more resources solely for research staff. The report identified that OT staff have currently the lowest involvement in research activity amongst the seven PAMS professional groups.

NI Service Reviews

There are currently two Health and Social Services Boards within NI undertaking reviews directly related to Occupational Therapy services.

In the EHSSB, increasing waiting lists for services has resulted in a growing number of complaints from clients, carers and local public representatives. In response the Board is currently undertaking a fundamental review of occupational therapy services with the aim of bringing forward proposals for the future development of the service. It is anticipated that the report and recommendations will be available by April 2002.

In the WHSSB, a review of all six professions allied services is underway which will make recommendations on the future organisation of services. Again this review will report its findings in early 2002.

Both of the above reports will have an impact on workforce requirements into the future.

Waiting Lists

The demand for occupational therapy services is clearly indicated from the waiting list information submitted by community Trusts. There are a wide variety of groups that can refer to the OT service including doctors, nurses, housing executive staff, social workers, physiotherapists, health visitors and even voluntary groups. It must be noted that the figures do not reflect current demands within hospital, mental health and paediatric services.

At the end of September 2001 there were 9479 people waiting for community OT assessment in NI. 64% (6077) of these individuals had been waiting over 3 months.

There has been concern for some time about the length of the OT waiting lists. This is demonstrated through the number of Assembly enquiries and complaints directed to Trusts. Despite a successful initiative in 2000/01 to remove unnecessary referrals from the Housing Executive (some minor works and change of heating) this has not has a significant impact on the waiting list. In view of the above, waiting list information is currently being collated by the DHSSPS on a monthly basis.

3. METHODOLOGY

The methodology for the review contained the following research components:

- Literature review and research
- Key informant interviews
- Focus Groups

3.1 Terms of Reference

The terms of reference for the review were identified as follows:

- to provide a profile of the current Occupational Therapy workforce in Northern Ireland, including:
  - numbers employed
  - age and gender balance
  - working patterns
- to provide an analysis of the current and future recruitment and retention issues, including:
  - pay
  - career development and specialisation
  - career breaks/leaving the profession
  - working arrangements
- provide a prediction of anticipated future supply and demand of occupational therapists over the next 5 year period.

One of the main outcomes of the review is to assist the Department in reviewing the number of student places that need to be commissioned from education locally to meet future service demands.

3.2 Literature Review and Research

A review of key strategic documents (both local and national) was carried out to set down the health policy context influencing the delivery of occupational therapy services and consequently workforce planning, both for now and into the future. A limited range of papers on recruitment and retention issues relating to occupational therapists were also reviewed. The content of these documents is largely considered in Section 2.

To gather accurate information that would help in the development of the current and future profile of the occupational therapy workforce a range of information sources was utilised. These included:

- A detailed workforce questionnaire completed by all occupational therapy managers working in HSS Trusts in N.I.
- DHSSPS Project Support Analysis Branch database
- Council for Professional Supplementary to Medicine database
- British Association of Occupational Therapists database
- University of Ulster: Student Profile Report

The data gathered through the above sources was vital in informing the future demand and supply predictions for the occupational therapy workforce.

3.3 Key Informant Interviews

The Project Group identified a number of key individuals who would contribute to qualitative data in relation to the following areas;

- current and future recruitment and retention issues
- current and future demand issues
- identification of parameters that will impact on the supply and demand of occupational therapists over the next 5 years, within the context of the HPSS service and the wider environment

The list of the 22 individuals who took part in the interviews is detailed in Appendix III.

An analysis of the issues that emerged from the interviews is detailed within the findings and conclusions sections of the report.

3.4 Focus Groups

Eight focus groups were held in various locations throughout N.I. All of the groups were organised and facilitated by the Beeches Management Centre.

The purpose of groups was to explore, with a mixture of Occupational therapy staff (within different grades / specialisms) issues that they (staff working on the ground within HPSS) felt were key to the recruitment and retention of staff. The locations of the groups were as follows:

- EHSSB (3 groups)
- SHSSB (1 group)
- NHSSB (1 group)

- WHSSB (2 groups)
- University of Ulster (1 group of undergraduate students)

A total of 62 occupational therapists participated in the events.

A wide range of qualitative information was gathered through the groups on the current and future recruitment, retention and demand indicators.

4. WORKFORCE DEMOGRAPHICS - FINDINGS

This section details the key findings from the workforce profile information. The details from the findings informed the recommendations that are presented in the final sections of the report.

4.1 Workforce Demographic Profile

The data from the DHSSPS Project Support Analysis Branch, and the questionnaire completed by service managers provided the majority of the workforce information presented.

Profile of the Occupational Therapy Workforce

There are currently 525 'qualified' occupational therapists working within HPSS in NI. The CPSM have recorded a higher number, with 651 therapists registered with a NI address. The breakdown of staffing in terms of permanent and temporary posts is broken as follows:

- 95% permanent staff
- 1.5%staff on fixed term contracts (time limited projects)
- 3.5% staff on temporary contracts

97% of the workforce is female with only 3% male. This breakdown has not changed over the past 4 years

4.2 Age Profile

The age profile of the workforce is detailed in the Figure below:

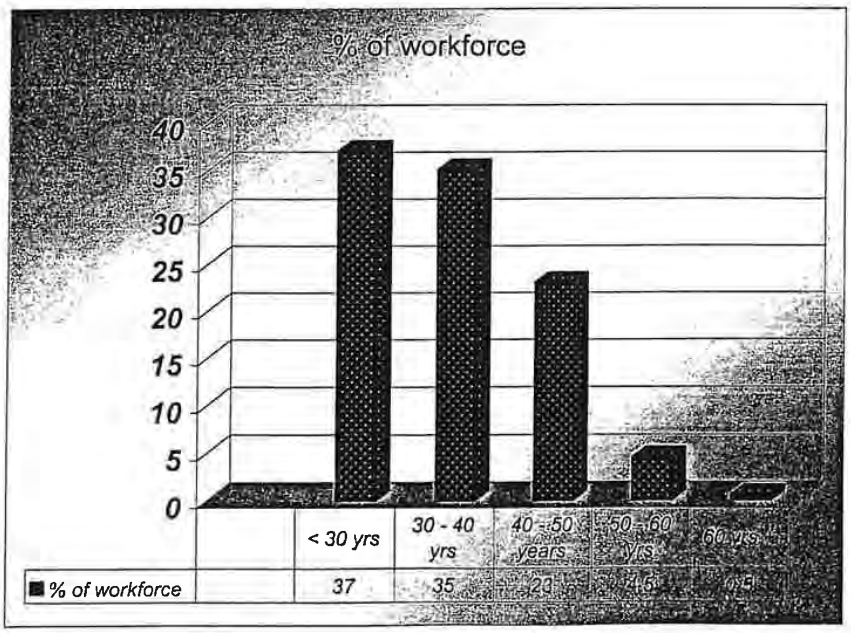


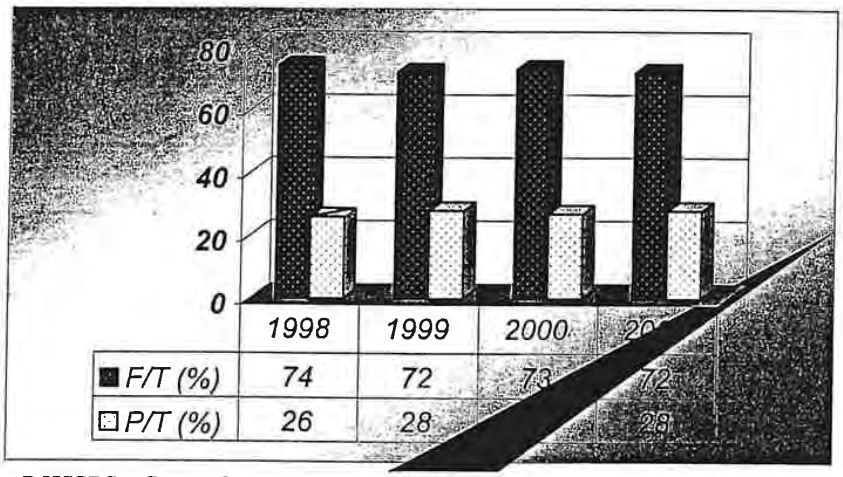
Figure: Age Profile – Occupational Therapists September 2001. (Source: DHSSPS)

The data outlines that the majority (72%) of the current workforce is within the 20 – 40 age range, indicating a relatively young workforce.

4.3 Full Time / Part Time Profile

An analysis of full time and part time working within Occupational Therapy over the past 4 years is detailed below:

Figure : Full time / Part time staff Profile 1998 - 2001



Source : DHSSPS – September 2001

The figure indicates that during the period 1998 – 2001, the number of full time staff has reduced only slightly during the last four years. During the same period the number of occupational therapists employed within HPSS increased by 17% (447 to 525 individuals, Source, DHSSPS).

Headcount to Whole Time Equivalent Breakdown

Based on the available data, information can be presented on the ratio of current numbers of full time Occupational Therapists to part time staff, shown as actual headcount to whole time equivalent.

Table: Headcount to WTE ratio (Source DHSSPS, September 2001)

Total Headcount (Sep 2001)	525
Total WTE (Sep 2001)	468.08
WTE / Headcount	1.12 Headcount = 1 WTE

The figures indicate that 1.12 Occupational therapists are required in the workforce for every full time post.

4.4 Workforce Profile By Grade

An analysis across all HSS Trusts of grade profile of the Occupational Therapy workforce is detailed in the table below.

Table: Grade Profile – September 2001

Grade	Full Time (Number)	Part Time (Number)	TOTAL (%)
Basic	82	1	83 (16%)
Senior 11	79	8	87 (17%)
Senior 1	154	116	270 (52%)
Head IV	7	5	12 (2%)
Head 111	44	5	49 (9%)
Head II	4	0	4 (1%)
Head 1	13	0	13 (2%)
Others	6	0	6 (1%)
TOTAL	389	135	524 (100%)

Source: Trust questionnaire

The table indicates that the majority of staff are at Senior I level (52%), with significantly fewer posts available at higher grades. This clearly has implications for the career progression of experienced staff. The information also indicates that almost half (42%) of Senior I posts are part-time. This may provide an explanation as to why there appears not to have been an increase in part-time working. I.e. a significant number of posts are already available to staff potentially looking for part time work.

In addition to the professional staff groups, all 15 Trusts (providing the OT services within HPSS) reported that they employ OT support staff. A total of 126 support staff work within HPSS (DHSSPS, Sep. 2001), with the staffing levels increased by 29% since 1998. Support staff in OT work in three different roles:

- Skilled Technicians: providing supervision at woodwork / treatment sessions with patients.
- OT Helpers: Staff who have completed the HNC in Occupational Therapy support and take on additional duties in support of professionally qualified staff.
- OT Technicians: Skilled support staff working within the community sector who put up additional stair rails, grab rails etc to assist clients within the community.

Figures from the DHSSPS indicate that there has been a significant increase in the number of Technical staff working within OT Departments over the past 4 years (41 in 1998 and 62 in 2002 i.e. an increase of 51%), with the number of OT helpers remaining virtually the same (57 in 1998 and 58 in 2002)

4.5 Vacancy Analysis

The workforce questionnaire forwarded to service managers provided details of the vacancy profile at 30th September 2001. 53 were recorded from the questionnaires. It is important to note that this is a snap shot of vacancies taken at a single point in time, however a further record of vacancies taken in December 2001 indicated 60 across the HPSS. The analysis of the vacancies indicated in September 2001 is detailed below.

Table: Vacancies –September 2001

GRADE	FULL TIME	PART TIME	TOTAL (%)
Basic	13	0	13 (24%)
Senior 11	11	1	12 (23%)
Senior 1	15	7	22 (42%)
Head 111	5	0	5 (9%)
Head II	1	0	1 (2%)
TOTAL	45	8	53 (100%)

Source: Trust questionnaire

Out of 53 identified vacancies at 30th September 2001, 45 were for permanent posts and 8 related to fixed term posts / temporary posts.

The majority of vacancies identified (83%) were for full time positions.

In geographical terms the vacancies were split as follows:

- EHSSB: 35 vacant posts (66 %)
- SHSSB: 10 vacant posts (19%)
- NHSSB: 6 vacant posts (11%)
- WHSSB: 2 vacant posts (4%)

Vacancy Analysis / Total Workforce

The information from the workforce questionnaire at 30th September 2001 indicated a vacancy rate of 9% within the HPSS Occupational Therapy workforce. This is calculated as follows:

- Staff in post (September 2001) 525
- Vacancies (September 2001) 53
- Total workforce 578
- Vacancy % rate 9%

4.6 Recruitment and retention of Staff

Managers were asked within the questionnaire to identify the number of staff they had been able to recruit from universities or employers outside of N.I. The figures provided indicated that on average (across the last 3 years):

- 5 new graduates from universities outside of N.I. returned each year to find their first job within N.I.
- 14 qualified staff returned each year to the N.I HPSS workforce after working as therapists elsewhere.

In relation to retention of staff, managers returned the following information (taken as an average over the 3 year period 1998/99 – 2000/01):

- 17 staff (3.2%) per annum left the HPSS occupational therapy workforce (taken as an average over the last three years), excluding retirees. Of these;
  - 21% left for family reasons
  - 56% left to take up an OT post outside of N.I.
  - 23% left for other reasons

For comparison, leaver figures have also been sourced from the DHSSPS Project Support Analysis Branch. Information over the year 2000/01 indicated that (excluding staff taking career breaks), 20 permanent staff left the service for the following reasons:

- 5% retired
- 5% left for reasons of ill health
- 65% left to take a job elsewhere / move to another country
- 25% left for other reasons (e.g. personal / transport difficulties)

Both sets of data indicate that the majority of leavers from the HPSS workforce leave to take up an alternative job or an OT post outside of NI.

The figures provided have informed the development of the supply projections detailed in future sections of the report.

The Council for Professions Supplementary to Medicine have provided figures of numbers of qualified staff who have deregistered and are recorded as under 60 years of age. 83 members under 60 years of age are recorded as lapsed registrants on the CPSM database. The British Association of Occupational Therapists were also able to provide figures of 33 lapsed NI members who would still be under 60 years of age.

The figures indicate that there are likely to be some qualified therapists within NI not currently working within the profession.

5. KEY FINDINGS IN INTERVIEWS AND FOCUS GROUPS: SUPPLY ISSUES

This section provides details of the various views expressed throughout the 22 key informant interviews and 8 focus groups involving 62 Occupational Therapists. Many of the issues raised by different individuals were similar and provided valuable information, which has informed the development of the recommendations and conclusions, contained in the report.

5.1 Supply Issues - University of Ulster Graduates

The local degree course for qualification as an Occupational Therapist is provided from the University of Ulster (Jordanstown campus). Recruitment to the BSc (Hons) course has not been an issue and over the last three years there have been 10 applicants for each one of the 50 places available. This is despite the high academic standards required for entry of 3 B grades at A level or equivalent. (Other access routes are also available, e.g. HND, GNVQ). Over the last five years all places have been taken up, with 90% of students being recruited from Northern Ireland, and the remaining 10% from the Republic of Ireland. 10% of applicants to the course over the last five years have been male, with 6% of students taking up places on the course being male.

Figures provided by the University indicate that an estimated 58% of graduates are recruited to the NI HPSS on qualification (average of 1998 and 1999 graduates). The first destination figure of 45% of graduates recruited to NI HPSS for the year 2000 has been viewed with some caution, as 16% of destinations are unknown, and it is impossible to say whether these students may have been recruited to the NI HPSS.

Table : First Destination of Qualifying Graduates 1998-2000

First Destination	1998	1999	2000
NI HPSS	25 (59%)	27 (57%)	20 (45%)
NHS-GB	12	6	4
EC	0	5	11
Other	2	4	2
Unknown	2	5	7
TOTAL	**41**	**47**	**44**

Qualitative data from the focus group session with students revealed the increasing number of employment incentives now available to new graduates outside of N.I. There was a feeling that graduates were looking to Dublin, the UK and abroad, as "there are lots of permanent jobs and better infrastructure." The University reported that they are experiencing increasing difficulties in securing placements for students in Northern Ireland, (each student is required to undertake 1000 hours of placement within a variety of clinical settings). As a result a number of undergraduates have to undertake placements in UK, which, if they had a good experience, increased their choice of first job at graduation. There was also a strong feeling that a cultural

change in society, which encouraged the experience of travelling, also encouraged students to look abroad for their first position.

5.2 HPSS Recruitment

Nearly all Trusts reported that they had some difficulty recruiting staff to occupational therapy posts. The length of time that these difficulties have been occurring does however differ between Trusts, with some experiencing problems for some time, while others only having difficulties in the last 1-3 year period.

The geography of some Trusts does appear to be an issue in attracting applicants for occupational therapy posts, for example North and West Belfast and some rural areas were highlighted. The Royal Hospitals also indicated that they have a particular difficulty in attracting and retaining staff.

Respondents from the focus groups sessions also indicated that the "occupational therapy grapevine" had the ability to enhance specific recruitment difficulties. As one respondent suggested "occupational therapy is a small world. If we hear something like that about a Trust, we'll tell people not to apply."

5.3 Grades Issues

Head III

Some Trusts recorded difficulties in attracting candidates to posts at Head III level as this grade is not particularly attractive. Post holders are required to undertake management responsibilities, and therefore more 'hassle', for what essentially could be only a small uplift in basic salary. At Head III level staff do not have the same level of domiciliary commitment as more junior staff, and consequently travelling claims are lower. This contributes to the perception that the post is not financially attractive.

Senior I

Many Trusts have difficulties in particular recruiting to specialist Senior I posts in mental health, learning disability, paediatrics, wheelchair services and hospital specialist posts. Those who currently have staff in these posts are increasingly concerned about their ability to fill such positions if the Senior I staff member leaves the Trust. A key issue highlighted in relation to filling Senior I positions relates to the lack of Senior II posts in specialist areas. In certain areas this lack of junior posts has lead to circumstances were if a Senior I post becomes vacant there are just not the occupational therapists available with the right skills to fill the vacancies. The grading profile of Occupational Therapists illustrates this point with 52% of all posts at Senior I level and only 32% of all posts at the junior grades.

Senior II

Some Trusts also reported problems recruiting to Senior II posts in areas such as care of elderly, learning disability, orthopaedics and mental health. Within mental health, one reason given for such difficulties related to the reduction in inpatient mental health services, which

traditionally would have provided posts at basis grade level. The reduction of such posts over the past years has reduced the potential pool of applicants for Senior II and I positions.

Basic Grade

A small number of interviewees reported that they have experiencing difficulties recruiting to Basic Grade posts. These difficulties mainly occur 6-9 months after the graduation of UU students, when the majority have secured posts. Few applicants are received by Trusts for basic grade posts during this period until the next group of students have graduated.

5.4 Temporary Posts / Return to Practice

Interview informants reported that recruitment to temporary posts was impossible. There was a clear indication from both the interviews and the focus groups, that there are no "out of work occupational therapists" available in NI to take up temporary positions as and when they are required.

It was also felt by many respondents that there are no occupational therapists 'out there', who would be interested in returning to work after a break, but are being prevented from doing so, due to their skills not being up to date, i.e. there would be no demand for a return to practice course in Northern Ireland.

5.5 Bank and Agency Usage

A number of Trusts reported that they have tried to establish a bank of staff to provide temporary cover, however, with the exception of one, they had not been successful.

Some Trusts have made attempts to secure staff via agencies in England. Most reported that they had limited or no success and many are not considering the possibility of employing such staff in future due to the excessive costs.

5.6 The Recruitment Process

Interview informants emphasised the fact that in terms of recruitment "the quantity of applicants is minimal, but the quality is mostly excellent." With the exception of Basic Grade posts, Trusts reported feelings of success if there had been 3 or 4 applicants per post. In some cases for specialist posts one applicant was the norm.

All of the interview informants reported that local means of advertising were used in the main. The local means most commonly quoted were Belfast Telegraph, the Central Services Agency Job Bulletin, and Trust Internal Trawls. A small number of Trusts used Therapy Weekly and Republic of Ireland papers. Very few interviewees reported advertising in the national press.

5.7 Recruitment Pool

Almost all successful applicants were recruited from within Northern Ireland, with a small number coming from the rest of the UK.

Interview informants reported that the majority of recruits were also locally trained, with a minimal number being trained in the rest of the UK or the Republic of Ireland.

5.8 Competition Between Trusts and Retention

Competition between Trusts was highlighted by a number of interviewees, as an increasing issue within Northern Ireland. The majority of OT staff (above Basic Grade level) in NI are recruited from within the HPSS Trust workforce and as one interviewee explained the situation was one of "robbing Peter to pay Paul".

The majority of Trusts did not report a specific problem with the retention of staff. The interviewees reported that staff left in the main for promotion, but also if opportunities arose for a permanent post, a reduction in hours or travelling time.

Movement of staff from the hospital to community setting was highlighted by a number of respondents. It was generally felt that for many OT's, after a period at Basic Grade level in a hospital, the community offered potentially more opportunity for flexible working. This is obviously attractive for those staff with young families.

5.9 Family Friendly Policies/Career Breaks and Return to Practice

Respondents in the key informant interviews reported some increase in requests for flexible working, although, with the exception of one Trust, the increase had not been significant. Interviewees reported that requests were usually accommodated, but that the needs of the service were acknowledged first and foremost. Requests for flexible working tended to relate to reduced hours or requests for a career break. Respondents indicated that not all requests for flexible working were being accommodated.

Evidence from the interviews and the Trust questionnaires indicated that 30 staff over the last 3 years have commenced a career break. This equates to an estimated 10 per annum, with some (but not all) returning to work on completion of the break.

5.10 Private/Voluntary Sector

Interview respondents reported that currently there is no significant impact from the voluntary sector on the occupational therapy workforce within Northern Ireland. However, some staff acknowledged that although this was the current situation, it might not always be the case with developments such as Northern Ireland Children's Hospice.

Trusts reported that the impact of the private sector on the Northern Ireland Occupational Therapy workforce had not been significant, although there was an increasing trend towards HPSS staff undertaking medical-legal work for private solicitors.

5.11 Career Progression

Evidence from the focus group sessions identified that a typical career path entailed the majority of new graduates taking up a Basic Grade rotational post in a Hospital (there are limited such posts in the community).

Focus group participants and interviewees reported that the common sequence was to apply for promotion at the earliest opportunity from a Basic Grade post, in line with British Association of Occupational Therapy guidelines. This sense of urgency was highlighted by one participant in: "If I hadn't got a Senior II post at two years, I would be worried." However, there was some feeling amongst interviewees that this sense of urgency did not always impact positively on the occupational therapy service, as individuals were not always appropriately skilled and experienced to progress at the earliest opportunity.

Career progression to Senior II level was reported by both interview and focus group participants, as being more fluid in urban areas. This was reported as being due to the limited number of posts in the more rural areas.

The most common concern was the limited opportunity for career progression once at Senior I level (OT staff are able to apply for Senior I posts after 3 years experience). As one interview respondent highlighted "there is not enough structure between Senior I and Head III. A lot of practitioners do not want to be Managers." There was therefore an active decision at this stage as to whether staff wanted to leave the clinical route and become a Manager. It was reported that additional factors impacted on the decision to become a Manager, and that these were reducing the likelihood of staff taking up managerial posts. One such key theme was the limited financial benefit of becoming a Head III, particularly given the travel expenses and flexibility of a Senior I post in the community. A further key theme was the additional responsibility and constraints of being at this level, in terms of staff management and dealing with the public with regard to complaints.

The current use of Discretionary Points to extend the career structure of Occupational Therapists was seen by the majority of respondents in the interviews and focus groups as divisive, and operating in an arbitrary way with "the Trust made up their own rules." Staff also reported distaste at having to prove what they do, and were put off by the process itself, as indicated in the following comments:

"I was put off by the Application Form"

"You had to write a thesis."

"It went on so long that I forgot I had applied."

5.12 Continuing Professional Development

Both interview informants and focus group participants highlighted lack of support for continuing professional development as a key concern, as one participant explained, "having time to skill ourselves up is seen as a luxury not a necessity." All staff acknowledged the importance of CPD in terms of ensuring their ability to perform and meet the demands of the service. As one focus group participant suggested, "in order to meet the demands of clinical governance we need to be competent to perform." Staff also acknowledged the importance of CPD in a new evidence-based climate "we need facts and figures. An evidence base is needed."

Staff reported concern that the there is currently no protected time set aside for each practitioner, which consequently caused staff to feel guilty about going on courses because "you are offloading to someone else." The lack of protected time built into the workforce

allocation process also caused staff to feel guilty as they felt that they were taking time out from service delivery and therefore increasing waiting lists.

Staff participating in the focus group sessions raised concerns about the minimal amount of funding for CPD. In some cases, funding was reported to have been frozen, as a result of Trust Recovery Plans. Consequently not all staff members could go on courses. Courses were part self-funded or alternatively one or two members of staff attended the course and were required to provide a feedback session to other staff members. As one focus group participant explained, "your names go into a hat and it's a lucky dip."

Focus group participants also reported issues with regard to accessibility to relevant courses. Staff reported a limited number of short-course or accredited programmes provided in Northern Ireland. In addition, staff highlighted the fact that they were often required to go to England for specialist courses in areas such as hands, Rheumatology, and care of the elderly.

Staff also highlighted their discontent at not being afforded the opportunity to attend courses where they clearly saw a role for the Occupational Therapist such as in Brain Injury and Forensic Oncology.

Interview and focus group respondents highlighted therefore that an appropriate level of investment in terms of time and resources in CPD, as well as an approach to assessing, prioritising and funding of such training would be welcomed.

5.12 Accommodation

A number of respondents commented that the accommodation arrangements for occupational therapy services within Trusts were extremely poor. This particular issue was highlighted as it contributed to poor moral amongst the workforce, particularly as it was felt that other professions are provided with significantly better accommodation particularly in terms of space.

6. KEY FINDINGS IN INTERVIEWS AND FOCUS GROUPS - DEMAND ISSUES

All interview and focus group respondents expressed a concern at the ability of Occupational Therapy services to meet the demands of the HPSS currently and in the future.

6.1 Current Services

Evidence from both the interviews and focus groups highlighted the following key areas of demand currently:

- **Inpatient Acute medicine and surgery:** The turnover of inpatients is increasing year on year. A particular comment from hospital staff related to their frustration at the majority of their time being dedicated to the assessment of patients rather than on treatment.

- **Hospitals:** Other key areas of demand in the hospital settings include Neurology, Fractures, Plastics and Burns and Paediatric services.

- **Wheelchair services:** The direct correlation between age and disability has increased the demand for wheelchair services. This service was highlighted as being particularly under resourced both in terms of manpower and more significantly, in some areas, in terms of goods and services

- **Home based rehabilitation services-** Patients are being discharged earlier into the community without the same amount of rehabilitation occurring in the Hospital setting, with the resulting implications for community occupational therapy services.

- **Paediatrics: Special school and mainstream-** there are an increasing number of children with disabilities attending mainstream schools. This is alongside an increase in the number of children in special schools. This has an impact on the logistics of providing the additional occupational therapy support required with little or no corresponding increase in investment.

- **Community mental health** – respondents commented that there has been lack of investment in community mental health OT services, despite the focus on community based care. A number of respondents commented on the demand for the development of OT services to support clients being cared for the community.

- **Learning Disability** (Adults)– Again many respondent commented on the lack of investment is what is a growing area of demand.

6.2 Role Expansion

There were a number of areas where staff reported an expansion to their role which has not been matched with appropriate resources. Participants in the focus groups welcomed these because they increased the skill and variety of their role, but highlighted that it meant that they were being "stretched" in too many different ways and were therefore not able to provide an effective service in any area. There was a desire therefore amongst both interviewees and focus group participants for service planners to "break from tradition" and give adequate thought to resourcing of these developments.

Areas in which the demands of the service expansion were noted as:

- **Splinting and hand work:** Occupational therapists were supporting the work of Consultants in fracture and orthopaedic fracture clinics.
- **Oncology:** the development of cancer services in Northern Ireland was placing additional demands on the occupational therapy service.
- **Neurology:** The development of a new Regional Brain Injury service was placing additional demands on occupational therapy.
- **Rheumatology:** The provision of additional consultant posts without the necessary infra-structure of PAMS staff to support the increased workload.
- **Inpatient children's services:** Traditionally there has been limited input into children's inpatient services but this has been increasing.
- **Addiction services:** This previously has been an area of unmet need, but demand is slowly increasing.
- **Child and adolescent mental health services:** This previously has been an area of unmet need, but demand is increasing.
- **Accident and Emergency:** OT involvement with patients in A & E to facilitate the prevention of admissions. One such pilot is currently underway within the Belfast City Hospital.
- **Pre-school children:** There are a growing number of babies and younger children with more complex disabilities who surviving and are cared for by parents at home. This is resulting in the requirement for increasing levels of support from community OT services.

6.3 Future Services

Several areas of the service were noted where it was felt that occupational therapists could or will in the future have a role. These were as follows:

- Local Health and Social Care Groups
- Community development
- Work rehabilitation
- Dementia
- Palliative care
- 7 day working

It was noted by most participants that these areas would require adequate resourcing.

6.4 Paperwork and Administration

All respondents in the focus groups and the majority of interview respondents indicated that paperwork and administration were taking up more and more of qualified therapists time, which was reducing the amount of patient contact time. The amount of time spent on clerical tasks had evolved out of the increasing need to document all aspects of a therapist's work because of increasing legislation, litigation, assembly questions, and audit and performance review. Few therapists felt that they had access to adequate clerical support, and most felt that a significant proportion of the administrative work could be reallocated to administration staff if there were appropriate numbers. As one focus group participant suggested "seniors tied up with paperwork. Is this cost-effective?"

6.5 Skill Mix

Assistants, Helpers and Technical Instructors were widely used by Trusts throughout Northern Ireland. Those employing these grades of staff commented positively on the contribution that they made to service delivery.

Some of the interviewees and focus group respondents indicated that there was potential to increase the number of support staff, which would then allow qualified staff to treat patients more effectively and efficiently.

There was a clear indication from both the focus groups and the key informant interviews however that issues which needed to be addressed within the support staff role included lack of opportunity for career development, poor pay structure and lack of opportunities for continual professional development. There was a perception held that the University "like you to have A-Levels" and that the HNC was not recognised. Therefore those assistants that wanted to develop as therapists were not able to do so. In addition, there was a perception that for those support staff that had completed the NVQ that there is no parity between Trusts in relation to pay and grading.

6.6 Continuing Professional Development

CPD and a commitment to facilitating staff training were viewed as a key motivating factor and a key factor in the recruitment and retention of staff. Within the context of clinical governance, increased litigation and the expansion of the occupational therapists role highlighted above, CPD will continue to be a key area of demand. Many interview respondents and focus group participants commented on the need for a more structured approach to CPD, which is properly funded. Currently a significant element of CPD is organised by staff themselves and the opportunities for OT's to take forward CPD are considered too few with inadequate funding.

6.7 Clinical Placements

All interview respondents were committed to providing clinical placements for occupational therapy students, although not all were able to facilitate them. The advantages of providing clinical placements were noted as "stimulating," "keeping staff on their toes" and "great to have if you have a busy caseload." A number of Trusts indicated however that it was becoming increasingly difficult to facilitate placements because of very high caseloads of staff and the

amount of time that needed to be dedicated to supervision, and because of the lack of suitable accommodation to facilitate an additional person in the Department. In addition, it was noted that students' experiences were becoming increasingly limited because of the lack of appropriate equipment and the limited number of staff within some specialist areas.

The University has indicated that they would wish to facilitate all final year students with placements in NI if a sufficient volume of placements was available. At present this is not possible.

6.8 Increasing Patient Expectations

All respondents reported that patient expectations have increased and that there is a widening gap between what patients expected and what can actually be delivered. Respondents highlighted the fact that patients are now more knowledgeable and vocal about their rights through increased availability and access to information.

6.9 Legislative Changes

New and/or future pieces of legislation were highlighted by both interview informants and focus group participants, as having an increasing demand on occupational therapy services, and the way in which they are provided. The pieces of legislation that was cited were:

- Community Care Act (1990).
- Disability Discrimination Act
- Special Education Needs and Disability Bill (2003/4)

6.10 Societal Factors

The majority of respondents in both the interviews and focus group sessions highlighted the following factors as impacting on the demand for occupational therapy services:

- **Ageing Population-** advances in medicine and technology have resulted in people living longer and increasing the number of referrals to occupational therapy;
- **Increasing Dependency-** it is recognised that those who receive care are generally more dependent than before because of the above, and this requires a more resource intensive service;
- **Medical Technology-** advances in medicine and technology have resulted in people with certain conditions surviving, where previously they would not have done. For example children are now leaving Hospital requiring ventilator support and there are more people with terminal illnesses or life-limiting illnesses surviving, where previously they would not have done.

6.11 New Ways of working

A number of respondents quoted different initiatives that they have become involved in as a way of addressing current demand on service provision. These include:

- **Accident and Emergency:** OT involvement with patients in A & E to facilitate the prevention of admissions. One such pilot is currently underway within the Belfast City Hospital.

- **Assessment Clinics :** A number of managers reported that they had or were keen to develop, with support, assessment clinics, in appropriate accommodation, as a way of providing services to a greater number of patients. The provision of such clinics facilitated greater through put of clients than the traditional domiciliary visit service.

7. WORKFORCE SUPPLY AND DEMAND PROJECTIONS

This section provides details on the estimated supply of Occupational Therapists within the NI workforce over the next five years. The estimates are based on a number of assumptions, developed from the information gathered within the workforce questionnaire and other sources. A prediction of the anticipated demand for therapists over the next five years is also outlined. The demand figures again have been developed from information gathered from the questionnaires and key informant interviews and by reviewing current and proposed service development proposals that will impact on the occupational therapy service over the next five years.

7.1 Supply of the Occupational Therapy Workforce

The supply information presented below has mainly been gathered by reviewing trends, over the past 3 / 4 year period, presented in the data supplied by the DHSSPS Project Support Analysis Branch, University of Ulster and Trust Occupational Therapy Managers. The anecdotal evidence gathered from the interviews and focus groups has also informed conclusions about the inflow of individuals into the workforce.

The supply of Occupational Therapists within the N.I. workforce is in the main determined by:

- The exiting employees currently available in the workforce (including full-time and part-time staff)
- Students graduating from the University of Ulster
- Student returning to work in N.I. after graduating from a university outside N.I.
- Professionals joining the workforce who were working previously outside N.I.
- Professionals leaving the workforce (through retirement, leaving for family reasons, career break etc)

The table below outlines the current and predicted supply of Occupational Therapists within the workforce over the 5-year period 2002 – 2006.

Table : Supply of Occupational Therapists (Headcount) 2001 - 2006

Supply	2002	2003	2004	2005	2006
University of Ulster Graduates	28	27	27	27	27
Entering the Workforce Graduates entering the workforce from outside of N.I.	5	5	5	5	5
OT's returning to work in N.I. from elsewhere	14	14	14	14	14
TOTAL ENTERING THE WORKFORCE	***47***	***46***	***46***	***46***	***46***
Leaving the workforce Family Friendly lost capacity (including impact of career breaks)	16	17	18	19	20
OT's leaving the workforce (excludes those retiring)	17	17	18	18	19
OT's retiring at 60 years +	2	2	2	2	2
TOTAL LEAVING THE WORKFORCE	***35***	***36***	***38***	***39***	***41***
Total currently in the workforce	525	537	547	547	554
Projected Number in workforce	537	547	555	554	559
Net increase / (decrease)	2.3%	1.9%	1.4%	1.3%	1%

The figures presented above have been projected as follows:

- UU Graduates joining the workforce have been estimated at 58% of those graduating, with an attrition rate of 3.5 students per intake. (based on evidence from UU). The figures presented are a 'worse case scenario' in that they have assumed no improvement in the retention of newly qualified students UU within N.I. The recommendations highlight the need to address this issue in particular given the low retention rate in N.I. of newly qualified therapists, the majority of whom (90%) are resident in N.I.

- The projected number of OT's joining the N.I. workforce from outside of N.I. is based on evidence gathered from the Trust questionnaires and represents an average of data over a four year period (1999 – 2001)

- Based on evidence gathered through the review, it has been assumed that there will continue to be an impact on the workforce of the uptake of family friendly policies, including requests for part-time working / career breaks etc. It has been assumed that

around 3 % per annum rising to 4% per annum of the workforce capacity will be lost due to the above over the period 2002 - 2006. It is noted that a number of project group members have indicated that this is a conservative estimate and further research will have to be carried out to test the validity of the assumption.

- Again evidence from the Trust questionnaires and HPSS data has indicated that an average of 17 OT's per annum left the profession for reasons other than retirement over the past 3 years. This figure has been projected over the five years to 2006.

- Figures from DHSSP Project Support Analysis Branch indicate that, the average retirement age for therapists is 58 years. However the age profile of the current workforce indicates that a small number of staff also work beyond this. Given this fact the assumption has been made that the workforce will loose, due to retirement, all staff currently over 55 years in the next five years. Those working beyond 60 years will compensate for those who retire before 60 years. DHSSPS figures have indicated that there were no occupational therapy staff retiring over the last two years due to incapacity and therefore no additional retirees numbers have been included for this variable.

In conclusion, based on the above analysis and assumptions it is suggested that the supply of occupational therapists by the end of the period 2002 – 2006 will increase by around 6%.

7.2 Demand for Occupational Therapists

It is difficult to obtain accurate data concerning the exact future quantifiable demand for Occupational Therapists within N.I. This is mainly due to the fact that there is little specific information available on projected resource investment within the service over the next five years. In addition there are a number of service reviews currently ongoing that will influence the service development over the next years, i.e.

- DHSSPS Community Care Review
- SHSSB Elderly Review
- Education and Library Boards Review – Support for Children with special needs in Education
- WHSSB PAMS Review
- NHSSB Elderly, Physical Disability, Sensory Impairment Review

Evidence gathered from a number of sources, through the workforce review, can however been utilised to present likely demand scenarios for particular areas of service. This includes known areas of definite or likely investment in OT services (i.e. current business cases), the impact of policy areas that are currently under review and the views of managers on unmet demand within the service over the period 2002 – 2006.

The demand projections for additional OT staff required within the HPSS over the next 5 years have been presented as three scenarios;

1. Agreed policy context and resource approved
This refers to service developments that have been agreed within the current HPSS policy framework with resources identified, or are likely to be approved over the course of the 5-year workforce plan.

2. Future policy context that may potentially be resourced
This refers to service developments that have been identified via key informant interviews and the project group that potentially maybe supported over the next five years, although resources have yet to be identified.

3. Unmet demand
This refers to additional unmet demands within the current services, identified via the key informant interviews and project group. There is no specific policy context or resource identified at present to meet this demand.

1. ***Agreed policy context and resource approved*** *- Service areas included are;*

- Cancer Centres Development : 7 posts (2003/6)
- Regional Brain Injury Unit : 11 posts (2003)
- Regional Medium Secure Unit : 3 posts
- Local Health and Social Care Groups : 2 posts (2002/3)
- Acute services : 2 posts (2002)

2. ***Future policy context that may potentially be resourced*** *- Service areas included are;*

- Community care review: 22 posts (2 per community Trust)
- Community services (waiting lists) 11 posts (1 per community Trust)
- Brain Injury, community infrastructure: 8 posts (2 per Board)
- Special Education Review: 10 posts (2 per ELB area)
- OT Consultant role: 4 posts (1 per Board)
- CPD time (10 sessions per annum) 9 posts

2. ***Unmet demand*** – It is difficult to be specific about actual number of additional posts, however the individual demand areas are identified as follows;

- Acute Hospital services (areas include the need to increase the current staffing establishment, development of rehabilitation services, A & E services, Tissue Viability, paediatrics).
- Learning Disability
- Mental Health services
- Developments in services driven by Local Health and Social Care Groups
- Health Promotion

Project group members indicated that there was concern about the significant lack of investment in the development of occupational therapy the above service areas.

In total, at this stage, a 17% increase in the workforce has been projected. This would be further increased if investment in the areas identified in scenario 3 is taken forward.

7.3 Supply Vs Demand

Utilising the above information in scenarios 1 and 2, the profile of the current workforce (including vacancies), the supply of Occupational Therapists against demand over the next 5 years is detailed below. The current vacancy level has been profiled in over the first 2 years of the period.

Table : Projected workforce supply against projected demand 2002 – 2006 (Headcount)

	2002	2003	2004	2005	2006
Supply					
Entering total	47	46	46	46	46
Leavers total	35	36	38	39	41
Net Supply (Shortfall)	**12**	**10**	**8**	**7**	**5**
Scenario 1 - Agreed					
Cancer Centres	1	1	1	1	3
Brain Injury Unit		6	5		
LHSCG's	1	1			
Medium Secure Unit			3		
Acute services	2				
Current Vacancies	26	27			
Total Scenario 1	**30**	**35**	**9**	**1**	**3**
Total over (under)	**(18)**	**(25)**	**(1)**	**0**	**0**
Scenario 2 - Potential					
Community Care	*4*	*4*	*4*	*5*	*5*
Community WL's		*2*	*3*	*3*	*3*
Community Brain Injury		*2*	*2*	*2*	*2*
Special Education		*2*	*2*	*3*	*3*
Extended Scope Practit.		*1*	*1*	*1*	*1*
CPD		*2*	*2*	*2*	*3*
Total Scenario 2	***4***	***13***	***14***	***16***	***17***
Total over (under) SCENARIO 1 & 2	**(22)**	**(38)**	**(15)**	**(16)**	**(17)**

From the above it can be clearly concluded that demand outweighs supply. In considering only the areas of confirmed investment (Scenario 1) in occupational therapy services over the next five years, if the current trend remains unchanged, there is a projected shortfall of 44 within the workforce by year 5. This increases to 108 however if further investment is secured in the services (scenario 2) and of course would be significantly greater in resources become available to invest in areas identified in scenario 3.

7.4 Sensitivity Analysis

A number of sensitively scenarios are presented below to review their impact on the projected shortfall figures above:

- ***A Increased % of UU graduates entering the HPSS workforce (70%)***

  If the HPSS can attract a greater percentage (e.g. 70%) of UU graduates into the HPSS on graduation, an additional 26 therapists would be available in the workforce over the 5 year period.

- ***B Reduction in number of leavers from the workforce (by 30%)***

  If the HPSS was to be able to reduce by 30% the number of therapists leaving the HPSS (for reasons other than retirement), an additional 27 Therapists would be available in the workforce.

- ***C Increase number of graduate places at UU by 10 per annum UU***

  If the number of places at UU is increased by 10 per annum from September 2002, an additional 6 therapists per annum (based on current average numbers newly qualified students entering HPSS on graduation) would be available from 2006.

The net impact of the total of the above would be to provide an additional 59 Occupational Therapists within the workforce.

8. RECOMMENDATIONS

A number of recommendations are now presented based on the key findings outlined in the report. The main focus of the recommendations is to address the projected significant shortfall in therapists over the next 5-year period.

Increase the number of students taking up posts in NI after graduation – Target 70% of graduates:

- It is recommended that Trusts should project their workforce requirements for the year ahead and recruit from final year UU students, commencing the process early (prior to graduations) in November / December. This will mean Trusts may also have to consider recruiting to additional junior grade posts to secure more qualified Occupational Therapists within the workforce.
- Trusts should review their skill mix to ensure that junior grade posts are available to attract students into the HPSS, particularly before graduation. Trusts should also review their skill mix to develop future posts at Basic Grade and Senior II posts wherever possible.
- A follow up to the focus group work with 4th year UU students should be undertaken to provide further information about how to attract more graduates into HPSS.
- Further discussions are required on incentives to encourage new graduates to take up posts within NI.

Clinical Placements:

- All Trusts should seek to facilitate clinical placements in NI to reduce the need for UU students to travel to GB for placements. The University, Boards and Trusts will need to take forward discussions on how this can be achieved (overcoming current barriers) within the context of current service level agreements.
- The University and Trusts should work together to ensure that as many third and fourth year student placements as possible are provided within NI. This will include discussions on more flexible timetabling of placements to enable service providers to accommodate as many students as possible.

Additional Student Places:

- The Department should take forward discussions with UU to review an increase in the number of undergraduate places at UU.
- The feasibility of the development of an accelerated entry programme for qualification as an Occupational Therapist should be explored (This should include the opportunity for support staff to under training to qualify as an Occupational Therapist).

Attracting other qualified Occupational Therapists into the workforce:

- The Department should explore the potential for a return to practice initiative by assessing levels of interest through local advertisement.
- The Department should seek to provide information on opportunities within NI for NI students who are currently studying in GB. This should be co-ordinated regionally.

Retention of current workforce:

- Further work needs to be taken forward to review the implementation and impact on the workforce of family friendly policies. There was a view from some members of the project group that the figures presented in the report (the impact of family friendly policies and leaver), are conservative and require further research.
- Further work is required to identify initiatives that will lead to the retention of therapists within the workforce.
- The Department should take to take forward the development of the PAMS consultant role to acknowledge high levels of clinical expertise within the profession and remunerate accordingly.
- Consideration needs to be given to the establishment of a scheme of rotation appointments for newly qualified staff, to provide the experience, many desire, of different clinical settings.

Continuing Professional Development Opportunities

- The Department should take forward initiatives to enhance the continuing professional development opportunities for occupational therapists. This will include developing a regional strategy to identify training and development needs and investment in opportunities locally. The development of a regional centre for CPD for PAMS should be taken forward.

Unqualified / support staff

- Work needs to be taken forward to support the development of the role of occupational therapy support staff. This includes regional support to make provision for opportunities to develop the skills of assistants to NVQ level 3 and local providers considering how the role of unqualified staff can be developed to assist in addressing demands within the current service.
- The provision of administrative and IT support to therapists needs further reviewed by employers, given the poor levels reported by participants in the workforce review.

Further Review of the Workforce

- The project group should be convened on an annual basis to review and update the workforce plan for occupational therapists.

9. CONCLUSION

The occupational therapy workforce review presented can only be viewed as the starting point, or a baseline for further work to be taken forward. This includes the development of an action plan to take forward the recommendations outlined above. The models presented in the report will need updated and refined on a regular basis to continue to inform decision-making and priorities concerning the investment in the HPSS occupational therapy workforce over the next years.

APPENDICES

1 – REFERENCES

2 - PROJECT GROUP MEMBERS

3 – KEY INFORMANT INTERVIEWS

APPENDIX 1

REFERENCES

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APPENDIX 2

Project Group Members:

D Bingham, DHSSPS
J Thompson, DHSSPS
J Cairns, DHSSPS
N McArdle, DHSSPS
C Kelly, DHSSPS
H Winning, Homefirst Trust
J Hammond, Homefirst Trust
E Milne, Armagh & Dungannon Trust
P Convery, Foyle Trust
M Magowan, Royal Hospitals Trust
I Boyd, Sperrin Lakeland Trust
A Clarke, NHSSB
P Hannigan, NHSSB
P Eakin, University of Ulster
B Day, Homefirst Trust
J Muston, Beeches Management Centre

Appendix 3: Key Informant Interviews

REPRESENTATIVE	ROLE / ORGANISATION
C Cranston	Occupational Therapy Manager, Craigavon Hospitals / Craigavon & Banbridge
P Convery	Occupational Therapy Manager, Foyle
M Magowan	Occupational Therapy Manager, Royal Hospitals
H Winning / M Stuart / J Hammond / E McErlene	Occupational Therapy Managers, United Hospitals / Homefirst
R Wylie	Occupational Therapy Manager, Down Lisburn
C Heaney	Occupational Therapy Manager, UCH
Y McShane	Occupational Therapy Occupational Therapy, Newry & Mourne
I Boyd	Occupational Therapy Manager, Sperrin Lakeland
J Jackson	Occupational Therapy Manager, Causeway
A McCall	Occupational Therapy Manager, Belfast City Hospital
S Wright	Occupational Therapy Manager, Greenpark
B DeOrnellas	Occupational Therapy Manager, North and West Belfast
A Curran	Occupational Therapy Manager, Mater Hospital
Ruth Moore	Special Education, North Eastern Education & Library Board
A Clarke	PAMS Commissioner, NHSSB
R Race	Management Solutions
Mr Fisher	A & E Consultant, Belfast City Hospital
P Eakin	University of Ulster
Dr D Gilmore	Consultant Geriatrician, Royal Hospital
Dr J McCann	Consultant in Rehabilitation Medicine
Dr Barker	GP, Bellaghy Medical Centre
N McArdle / P O'Brien	PAMS Advisor, DHSSPS / Housing Advisor, NI Housing Executive

Department of Health, Social Services and Public Safety

An Roinn Sláinte, Seirbhísí Sóisialta agus Sábháilteachta Poiblí

Review of the Technical & Scientific Workforce

Final Report

November 2002

1. EXECUTIVE SUMMARY

1.1 Introduction

This review is one of a series of reviews which the Department of Health, Social Services and Public Safety (DHSSPS) is undertaking to inform the planning and provision of health and social services staff over the next five to ten years, and covers the technical and scientific staff groups. These include Medical Laboratory Scientific Officer (MLSO), Medical Laboratory Assistant (MLA), Medical Technical Officer (MTO), Assistant Technical Officer (ATO) and Clinical Scientist (CS) grades.

The aim of the review was to investigate, within the context of workforce planning and deployment, current and future supply and demand factors that will impact on the delivery and development of professional technical and scientific services over the next 5 – 10 years.

The detailed terms of reference included:

- an analysis of the current technical and scientific workforce in Northern Ireland;
- an analysis of current and future recruitment and retention issues; and
- a prediction of the future supply of the workforce and demand.

The review set out the following key elements:

- the predicted number of technical and scientific professionals required over the next five to ten years;
- a model that can be applied to predict trends in the supply and demand of technical and scientific professionals;
- a model identifying the parameters that will impact on the supply and demand of these professionals within the context of developments both within the professions and in the wider operating environment including economic context and society's requirements; and
- identifies current and indicative future trends in the development of these services.

The review was overseen by a Steering Group established by the DHSSPS and chaired by David Bingham, DHSSPS Director of Human Resources. The group approved the project approach, made recommendations as to involvement from the service and reviewed the initial findings and draft report prior to approval in its final form. This Steering Group also acted as a forum for discussion and debate around the assumptions to be used for the modelling to ensure they reflected the experiences of those in the service.

Due to the diverse nature of the staff groups under review the Steering Group broke in to three sub-groups for much of the detailed work, these being:

- MLSOs, MLAs, and Cytoscreeners;
- MTOs (including ATOs); and
- Clinical Scientists.

The work format consisted of key informant interviews, focus groups, review of relevant literature and work to date and data modelling of current workforce data.

1.2 Context

This review was carried out against a background of continuous change and development in the service and took account of a number of key strategic documents which will impact on the future delivery of service in Northern Ireland, including:

- The Acute Hospitals Review Group;
- Building the Way Forward in Primary Care;
- Agenda for Change and Making the Change;
- The European Working Time Directive; and
- Priorities for Action 2002 / 03.

1.3 Workforce Structure

The data used for the review was the HRMS Payroll Information as at September 2001 as supplied by the DHSSPS. Whilst it was recognised that discrepancies exist with regards to how individual trusts have categorised staff, it was felt that for overall trends it was sufficiently robust and the most accurate available within the timescale of the project. All figures quoted are for headcount (as opposed to whole time equivalents).

1.3.1 MLSO, MLA, Cytoscreeners

There were 545 MLSO in the workforce, an increase of 7% over the previous four years, with the majority (78%) on the lowest two grades. The modal age is 45-49, and there has been a 5% increase over the last four years in the number of female staff, to 52% of the workforce. 60% of MLSO1 are female, compared to 12% at MLSO4. 14% of staff work part-time.

There were 55 trainee MLSO of which 73% are female.

There were 118 MLA staff, an increase of 19% over the previous four years. This is a young staff group, with 42% under 25, and 67% under 30. The group is predominantly female (62%) and only 9% work part-time.

There were 7 Cytoscreeners, including a trainee, with an even spread of ages from early twenties to early sixties.

1.3.2 MTO, ATO

The MTO group consisted of 306 staff at September 2001, a growth of 10% over four years. This group covers a wide range of specialties, from clinical roles such as in cardiology to medical physics and mortuary technicians. An increasing number of staff are under 25, with a modal age of 35-39, and 58% are female with 17% working part-time.

There were also 12 Trainee MTOs and 51 ATOs.

1.3.3 Clinical Scientists

In September 2001 there were 93 Clinical Scientists working in both laboratories and medical physics. This is an older age group with 23% of staff over 50, and the largest proportion (19%) being 40-44. 60% of the group is male, and only 10% (all female) work part-time.

1.4 Key Issues – Supply

During the key informant interviews and focus groups a range of key supply issues were identified in relation to recruitment and retention.

1.4.1 MLSO, MLA and Cytoscreener

A major concern expressed by all grades of MLSO was the lack of bursary available to students in their placement year. This puts them at a disadvantage compared to other placements outwith the health service. Unlike other similar health care professions, such as nurses and PAMs (who receive bursaries or whose fees are paid) Biomedical Science students receive no financial assistance, so making the MLSO role less attractive in comparison. Concern was also expressed as to the availability of good structured training in organisations which are often struggling to meet ever increasing service demands.

Starting salaries for graduates are not attractive or competitive, and there is a lack of career structure, resulting in staff remaining on the same grade for many years. Work pressures and the demands for provision of out of hours services, coupled with the difficulties of meeting the working time directive with limited staff, and an increasing percentage of females entering the workforce looking for more family-friendly working practices, result in increased strains on the current workforce and do not make these roles attractive to new graduates.

Pressure is also being seen at the top of the MLSO scale as a result of shortages in (medical) consultant laboratory staff.

There is a very high turnover in MLAs (in 2001, 42 staff left, which represents approximately 24% of the staff group) and a serious difficulty in recruitment due to the low levels of pay and lack of a career structure.

Cytoscreeners are also on low pay, but a primary concern is the timescale for training (2 years) and the lack of succession planning to ensure trained staff are available for the future.

1.4.2 MTOs

As with Biomedical Science graduates, the lack of financial assistance during the Clinical Physiology degree course, (and in particular the placement year,) and the low levels of starting pay for graduates are significant factors in the ability to attract new staff to the profession.

At present the University of Ulster degree in Clinical Physiology provides modules suitable for four of the specialties which come under the RCCP banner – cardiology, respiratory medicine, audiology, and neurophysiology. There are currently difficulties providing relevant modules of the degree for those specialties outwith the four mentioned above, due to the small number of staff requiring training, primarily as a result of low turnover in these specialties

As a result, Trusts are offering students on their placement year full time employment, requiring the student to complete their degree studies on a part-time basis. As student numbers are small, this has a detrimental effect on the running of the degree course.

Pay levels for MTOs are low, and career progression is not automatic, resulting in staff remaining on the same grade for considerable periods of time. Due to the lack of trained staff in the market place, the ability of the service to provide family friendly policies and cover the service needs is limited, which is a serious issue in a workforce where more than 60% of the staff are female.

The Regional Medical Physics Agency is experiencing difficulties in recruiting and retaining MTO staff due to the lack of a structured education and training programme, and low levels of pay.

1.4.3 Clinical Scientists

The primary concern for laboratory Clinical Scientists is the potential number of retirements anticipated in the next ten years (23% of staff if they retire at 60), and the requirement to start succession planning now, due to the long timescale needed to train a Clinical Scientist (8-10 years). The DHSSPS currently funds three trainee Grade A posts in Biochemistry, but succession planning needs to be carried out for all disciplines.

The Regional Medical Physics Agency (RMPA) has had significant difficulty in recruiting Grade B Clinical Scientists, particularly in radiodiagnostic physics, as the number of qualified staff available to fill such posts in Northern Ireland is limited, and there is a shortage of such staff in the rest of the United Kingdom.

The Department currently funds four trainee Grade A Clinical Scientist posts in the Agency.

1.4.4 Low Profile

Common to all staff groups, except perhaps Clinical Scientists, was the view that their roles had a very low profile, both within the service and externally.

They felt that the public viewed the NHS as being "doctors and nurses" with little recognition for the essential role which they provide. This, coupled with the low levels of pay offered, in particular to University Graduates, does not make the roles attractive. Concern was also expressed that within organisations the role and workload of these groups of staff was not fully recognised, particularly in relation to appointment of new Consultant staff or the expansion of clinical services, where the implications for support functions may not be adequately acknowledged or resourced.

1.5 Key Issues – Demand

1.5.1 Laboratories – covering MLSO / MLA / Cytoscreeners / Clinical Scientists

The key areas of demand affecting laboratory staff are:

- an increase in the volume of activity. Recent data demonstrates that laboratories have consistently seen an increase in tests requested of, on average, 6-7% per annum for a number of years. For some specialties the increase is much greater. Significant increases in primary care requests and changes to clinical practice along with clinical governance and the increasing threat of litigation are considered key drivers behind this;
- an increase in the complexity of the tests requested and the depth and speed of reporting required;
- an increasing requirement for laboratories to achieve and maintain CPA accreditation, including requirements for the appointments of Quality Managers, along with increasing workload due to areas such as clinical governance, waste disposal, infection control, clinical audit, blood safety and blood transfusions;
- an increasing need to provide out of hours cover and for this cover to result in staff needing to work continuously throughout their on-call duty;
- an increasing demand on staff with regards to providing training officers for students on degree placements;
- the ongoing development of new areas of laboratory science, for example in the fields of genetics and molecular biology, along with increasing sub-specialisation, and the need to keep abreast of new techniques; and
- the development of near patient testing which could potentially require significant input from laboratory staff, particularly with regards to quality control.

1.5.2 Clinical MTOs

Increased demand for staff is resulting from a variety of factors that are continuously evolving:

- the changing roles of medical staff, with the requirement for other professions to take on extended roles previously delivered by doctors;
- potential developments in the delivery of health care such as digital hearing aids and the National Strategic Framework for Cardiac Services ;
- changes to the working patterns and hours of delivery, for example an increasing demand for evening and weekend clinics; and
- for certain specialties such as cardiac theatre technicians the requirements of the Working Time Directive will put significant pressure on services currently covered by a small number of staff.

1.6 Data Modelling

The baseline data used was supplied by the DHSSPS and was based on the annual Trusts' payroll download at September 20001. A series of assumptions was developed with the Steering Groups and applied to the data:

- **Retirements**: A retirement age of 60 was assumed for all staff;
- **Other leavers**: The DHSSPS completed an analysis of staff leaving in 2001 and a percentage estimated was calculated. With the exception of MTOs and Clinical Scientists these percentages were applied to the models. The MTO and Clinical Scientist percentages were felt to be unrealistically high and were adjusted down. The final percentages were MLSO – 3%, MLA – 29%, MTO – 1.5%, CS – 4%;
- **Graduating Students**: From information provided by the University of Ulster the estimated number of Biomedical Science graduates filling MLSO grades each year is 31;
- **Current Vacancies**: Based on information provided by the DHSSPS from its vacancy review in March 2001, and information gathered from key informants, the percentages applied were MLSO – 4%, MLA - 4%, MTO – 5%, RMPA MTO – 21%, CS – 3 vacancies;
- **Workload projections**: an increase in staff requirements of 1% rising to 2% after 5 years has been assumed, excluding the RMPA where specific figures (2 CS and 3 MTO per annum) have been included;
- **Working Time Directive**: It is assumed that MLAs, Clinical Scientists and most MTOs are not affected. A 10% increase in staff required has been assumed for MLSO and a small number of MTO specialties;
- **Loss due to work / life balance**: Due to an increasing percentage of females entering the profession, for MLSO it is assumed an additional 1.5% of the workforce will wish to move to part-time working each year. For the remaining staff groups, where the increase in females is not so marked, it is assumed that 1% per annum will wish to move to part-time; and

- **Continuing Professional Development**: 10 sessions per annum per member of staff have been included for MLSO and MTO staff. No CPD has been included for MLA staff, and CS staff are assumed to currently cover their CPD requirements.

The above assumptions were applied to the baseline data, resulting in the following estimated annual turnover and potential additional requirement projections over the next five years.

Table 1.1
Summary of Projections

	2002/03	03/04	04/05	05/06	06/07	Total
MLSO						
Supply Shortage	3	7	7	7	7	31
Potential Additional Requirement	59	49	9	11	12	140
Net Demand	62	56	16	18	19	171

The major demand issue facing MLSO in the next few years will be the implementation of the working time directive, and filling the current shortfall in staff. The current number of graduates choosing to join the profession will not be sufficient to meet the total potential additional demand.

Table 1.2
Summary of Projections

	2002/03	03/04	04/05	05/06	06/07	Total
MLA						
Estimated Annual Turnover	36	36	36	36	36	180
Potential Additional Requirement	3	3	2	2	2	12

The main problem faced by the MLA group is that of retention and high turnover, with their ability to fill posts dependent on market forces. Whilst they may attract staff into posts, they are unable to retain them with an annual turnover of 24%.

Table 1.3
Summary of Projections

	2002/03	03/04	04/05	05/06	06/07	Total
MTO						
Estimated Annual Turnover	16	11	11	11	11	60
Potential Additional Requirement	34	30	7	8	9	88

Not all types of MTO require degree level entry qualifications, so student numbers have not been included above, however, in some specialties such as Cardiology it is known that there are insufficient graduates from the Clinical Physiology degree to meet their needs. The ability to fill potential new posts will vary by specialty, entry level requirements and market forces.

Table 1.4
Summary of Projections

	2002/03	03/04	04/05	05/06	06/07	Total
Clinical Scientist						
Estimated Annual Turnover	6	6	6	6	6	30
Potential Additional Requirement	5	4	3	3	3	18

The ability to fill additional Clinical Scientist posts for laboratory scientists is dependent on the availability of funding for training posts (currently the DHSSPS funds three trainee posts). The ability to fill posts at the Regional Medical Physics Agency is more of a concern due to known national shortages (the DHSSPS fund four trainee posts).

1.7 Conclusions and Recommendations

From both the qualitative analysis and the detailed data modelling the following conclusions and recommendations were drawn:

1.7.1 MLSO/MLA/Cytoscreeners

For the MLSOs the projected shortfall in staff is a serious concern due to the very limited number of students currently studying for relevant degrees, and the ability to attract these students in to the HPSS. It is clear that in the next five years, these staffing gaps will not be able to be filled by graduates alone even if significantly more were attracted into HPSS careers, and alternative

measures will need to be taken. This has to include reviewing alternative strategies for service provision.

For MLAs, the most significant concern is the high level of turnover and the service's ability to retain staff given the low level of pay.

Whilst Cytoscreeners are small in number, they have an important role to play, and it is essential that the service is in a position to manage any anticipated changes in personnel.

We would make the following recommendations;

- **Bursaries for Student Placements:** The Department should review the potential for establishing some form of financial assistance to students undertaking the Biomedical Science degree in order to make it as attractive to students as other professions, and to encourage science students to undertake their placement year in the HPSS;

- **Extension of Biomedical Scientist Grade:** The implementation of the extension of the Biomedical Scientist grade in cytology should be reviewed to assess the appropriateness of extending the grade in other specialties, in order to alleviate pressures in laboratories resulting from a shortage of medical staff;

- **Diploma in Professional Practice (Pathology):** The pilot should be evaluated and modified if necessary to ensure its ready adoption on a wider scale within NI and elsewhere. Reducing the timescale for training required by new Biomedical Science graduates prior to State Registration should assist in the recruitment of new appropriately qualified staff to the profession;

- **Career Structure**: Work should be carried out to review the skill mix required and the potential to develop some form of career structure for MLAs which includes CPD and the potential to progress to MLSO grades. Trusts should also review the potential within their organisations to fast-track staff from MLSO1 to MLSO2 grades. The reasons for the currently low proportion of women at the more senior MLSO grades, in comparison with the profession as a whole, should also be investigated along with, if relevant, potential means by which to address the gap; and

- **Cytoscreeners Succession Planning**: The Department should review the potential for increasing the number of trainee Cytoscreeners over the next five years to ensure qualified staff are available to fill vacancies which will arise due to retirements.

1.7.2 MTOs

Again the modelling has demonstrated a potential shortfall in available staff over the next five years. A significant element of this relates to specialties such as Cardiology where there is a shortage of students graduating with relevant degrees. We would therefore make the following recommendations:

- **Clinical Physiology Degree**: Work should be carried out between the University of Ulster and the service to review the delivery of the Clinical Physiology degree to increase the flexibility of its approach and therefore the specialties that it can support. This should help to determine ways in which small numbers of staff for specialist areas can receive the relevant training and qualifications, whilst recognising that the numbers required each year will fluctuate; and

- **Bursaries for Student Placements**: As with MLSOs, there is again the view that the offering of some form of financial assistance for students would significantly assist in recruitment in to the Health Service, and bring this group of professions more in line with their clinical colleagues.

1.7.3 Clinical Scientists

Recruitment in to this staff group (for laboratory staff) is not a major concern, but a number of staff are due to retire in the next five to ten years and this needs to be recognised now. In order to ensure that suitably qualified staff will be available in the future, the Department should review the training currently funded for Grade A Clinical Scientists to extend it, where necessary, across the laboratory specialties. It should be targeted to specialties of greatest need, based on an annual review of future staffing shortages and succession planning for retirements.

Current national shortages for CS staff for the RMPA are a concern and alternative measures may need to be reviewed to overcome this. The Department and the RMPA should also review the potential for further developing training schemes in the Agency to help overcome their recruitment problems and increase the potential to develop expertise in these areas within Northern Ireland.

1.7.4 Service Wide

There are also a number of recommendations we would wish to make which apply to all specialties and staff groups covered by this review:

- **Service Strategies**: Workforce planning is very difficult to carry out with any degree of accuracy if the future shape and provision of services is unclear. As mentioned earlier, the report of the Acute Hospitals Review Group (Hayes Review) is currently being considered. Whilst this clearly sets out a potential shape for the future provision of services, the outcome of the review is not yet known;

  A clear strategy for the future structure of laboratory services in Northern Ireland is needed. The Hayes review stated that "We believe that the pressures on the pathology service to deliver a high quality cost effective service will make it increasingly difficult to sustain the current configuration of laboratories". Alongside this, development of an integrated IT strategy and system would significantly assist

laboratories in the management of their workload and would need to play a key role in any redeveloped service model. Common approaches to equipment purchase will enable easier movement of staff without requiring additional training;

In the short term, networking arrangements across the province should be encouraged to alleviate the most severe pressures. As potential plans and strategies emerge, workforce requirements will need to be continuously reviewed;

- **Raising Role Profiles**: We would recommend that work be carried out to review current recruitment practices in the service. The aim should be to increase the profile of roles carried out by the Technical and Scientific staff groups and increase public awareness, particularly amongst school leavers, in order to attract a greater proportion in to relevant further education courses;

- **Benchmarking**: Benchmarking is already carried out in the Belfast Link Laboratories and work should be carried out to set benchmarked norms for workload across the province based on volumes, complexity, training obligations etc. to assess staff numbers required. This would assist in determining detailed workforce planning and aid decisions with regards to priorities for future resource investment. It would also provide a useful tool for assessing, for example, potential service reconfigurations such as those proposed by Hayes. This recommendation echoes that of the NI Assembly Public Accounts Committee following its review of Pathology Laboratories (reference: 06/01/R);

- **Funding for Training**: Work is required to quantify the financial impact of the increasing requirements for training, including the appointment of training officers, and the impact of proposed requirements for CPD for those staff groups where such formal training programmes do not currently exist;

- **Categorisation of Staff on Payroll**: It would be useful if agreement could be reached as to the classification of staff on the payroll system to enable valid comparisons of staffing levels to be made between organisations in the future. For example, the range of names used for differing specialties does not lend itself to useful comparisons between organisations; and

- **Further Workforce Planning at Specialty Level**: As previously mentioned, this report should act as a starting point for more detailed workforce planning. By its very nature it is a broad-brush approach, and more detailed planning should be carried out on a specialty basis (not necessarily on a trust or site basis). This would enable more detailed assessments to be made of the issues and allow alternative service configurations to be modelled.

This work is particularly imperative with regards to the implementation of the Working Time Directive, which is now European Law and requires to be complied with as soon as possible.

2. INTRODUCTION

2.1 Background

A modern NHS is one that delivers care to patients in a way that is sensitive to their needs and expectations. It is a service that offers advice, support, high quality clinical care and seamless provision across care organisations. To deliver this the NHS depends on its staff. It needs a workforce which has the skills and flexibility to deliver the right care at the right time to those who need it – a workforce which has the right number of staff deployed in the right places and working to the maximum of their ability.

In order to address this issue the Department of Health, Social Services and Public Safety has commissioned a review of the current provision of technical and scientific staff across Northern Ireland. The aim of the review is to inform the Department's planning in the provision of training for these professions to facilitate service continuity and development over the next five to 10 years. This report is the result of that review.

Technical and scientific staff provide a range of scientific, clinical and technical expertise across an array of specialties and sub-specialties. They are employed generally on Medical Laboratory Scientific Officer (MLSO), Medical Laboratory Assistant (MLA), Medical Technical Officer (MTO), Assistant Technical Officer (ATO) and Clinical Scientist (CS) grades and typically work across a number of directorates and locations, principally (but not exclusively):

- laboratories;
- medical physics;
- blood transfusion service;
- mortuaries;
- audiology, respiratory medicine;
- EEG, neurophysiology;
- cardiac and cardiology services; and
- theatres.

This review considers a number of changes ongoing in the Health Service which are impacting on the roles and responsibilities of staff and which will have a bearing on planning the technical and scientific workforce required in the future. These include:

- the increasing scope for extension of roles to perform tasks previously undertaken by medical staff;
- changing employment patterns and policies relating to family friendly working, maternity and paternity rights;

- the impact of recent and forthcoming legislation such as the European Working Time Directive; and
- changes in new technology and the use of more expensive and increasingly complex medical equipment and testing procedures; and
- the problems of recruiting and retaining trained staff because of competition from other sectors.

2.1.1 Terms of Reference

Against this background the aim of the review was to investigate, within the context of workforce planning and deployment, current and future supply and demand factors that will impact on the delivery and development of professional technical and scientific services over the next 5 – 10 years.

The detailed terms of reference included:

- an analysis of the current technical and scientific workforce in Northern Ireland;
- an analysis of current and future recruitment and retention issues; and
- a prediction of the future supply of the workforce and demand.

The review should set out the following key elements:

- the predicted number of technical and scientific professionals required over the next five to ten years;
- a model that can be applied to predict trends in the supply and demand of technical and scientific professionals;
- the model should identify the parameters that will impact on the supply and demand of these professionals within the context of developments both within the professions and in the wider operating environment including economic context and society's requirements; and
- identify current and indicative future trends in the development of these services.

2.2 Review Methodology

2.2.1 Steering Group

The approach taken within this project has been similar to that taken in other workforce reviews recently commissioned by the Department. The project has been overseen by a Steering Group (see Appendix A) established by the Department and chaired by David Bingham, DHSSPS Director of Human Resources. The Steering Group approved the project approach, made recommendations as to involvement from the service and reviewed the initial findings and draft report prior to approval in its final form. This Steering Group also acted as a forum for discussion and debate around the

assumptions to be used for the modelling to ensure they reflected the experiences of those in the service.

2.2.2 Sub-groups

The Technical and Scientific staff group is a large and diverse group requiring input and involvement from a range of individuals. It was therefore decided at the initial Project Initiation meeting to sub-divide the group into three for the purposes of the detailed discussions, with the whole group reconvening for approval of the final report. These three groups were;

1. MLSOs, MLAs and Cytoscreeners;
2. MTOs (including ATOs); and
3. Clinical Scientists.

2.2.3 Work Format

The format for the work carried out was the same for each group and consisted of the following;

i. Key informant interviews with relevant personnel (see Appendix B for a complete list of personnel interviewed) and a series of focus groups (see Appendix C) with a range of staff and students. These were held to identify the key issues affecting recruitment and retention within the disciplines, to gather information to inform predictions of future demand and to identify useful sources of relevant literature and data;

ii. Review of relevant literature and work carried out to date; and

iii. Data modelling based on centrally available workforce data and key assumptions, derived from the above review work, for projecting factors affecting supply and demand.

2.3 Structure of this Report

This report sets out the findings of the review of the technical and scientific workforce as follows:

- Section 2 – An overview of the context within which the review is taking place, including key policy drivers;
- Section 3 - A breakdown of the current workforce, including current career structures and roles;
- Section 4 – Analysis of the current supply issues being faced by each staff group;
- Section 5 – Analysis of the current major demand issues affecting the service and impacting on staff workloads;
- Section 6 – Modelling of the current workforce data to provide a prediction of future need against the projected supply within the workforce;

- Section 7 – A review of current national policies which will have an impact on a number of the issues raised; and
- Section 8 – Conclusions and recommendations arising from the report.

3. CONTEXT

3.1 Overview

The NHS, by its very nature, is a continuously evolving organisation. Few aspects remain static for long, and in particular at the moment there are significant changes taking place that will affect the workforce required to deliver the service. These changes include:

- advances in medicine and clinical technology;
- changes in the way doctors are being trained;
- evolving roles for all staff groups;
- increased specialisation alongside an increase in service provision in primary care;
- the balance of accessibility versus clinical governance and quality standards; and
- European legislation and the impact on available staff.

This means that when considering workforce planning for the future a framework needs to be established which can be regularly and easily updated in line with evolving policies and strategies. This report therefore represents a starting point from which further work can be taken forward.

A number of associated principles for the development of workforce plans in England have been identified by the Department of Health:

- workforce development has to be built around the services and potential services the public need;
- this in turn needs to drive debate on the skills and competencies required to deliver this service;
- planning needs to be integrated with service and financial planning;
- the use of a holistic approach, looking across primary, secondary and tertiary care or across staff groups;
- response to service changes and developments; and
- support for multi-disciplinary training, education and working.

3.2 Northern Ireland

Whilst the above principles fully apply to any workforce planning, acknowledgement needs to be made of where the HPSS in Northern Ireland is at present with regards to its long-term service strategies. A number of key strategic documents have been developed, the outcomes of which will determine the way forward for the provision of services across the spectrum of the HPSS from primary care to tertiary services.

The elements of these strategies that impact on workforce planning are discussed below.

3.2.1 The Acute Hospitals Review Group

The Health Service in Northern Ireland is currently considering the recommendations of the Acute Hospitals Review Group led by Dr Maurice Hayes, which sets out proposals for the future shape of acute services in the province.

The review highlights the current pressures that the service is under, including:

- changing care needs;
- Public expectations with regards to quality, convenience and effectiveness;
- demand for services;
- advances in medical technology;
- increasing specialisation; and
- resource constraints (personnel and finance).

The review recommends a restructuring of services delivered from hospital sites in Northern Ireland, whilst ensuring all members of the population can access such services within one hour. It also recommends the development of managed clinical networks and local health and social care resource centres.

The outcome of this review will clearly have a significant impact on the future shape and size of the workforce, across all staff groups.

3.2.2 Building the Way Forward in Primary Care

The DHSSPS has published "Building the Way Forward in Primary Care" which sets out proposals for the future of Primary Care beyond the cessation of GP Fundholding, and includes the proposed establishment of Local Health and Social Care Groups.

There is much discussion currently in the Health Service about the future role of Primary Care. Whilst it is clear that there is a strong drive towards greater delivery of care in the Primary Care setting, the future shape of these services has not yet been clearly articulated. There is also a strong view that this cannot be resolved in isolation and has to be taken forward in conjunction with the Acute Hospitals Review.

3.2.3 Agenda for Change and Making the Change

Through "Agenda for Change", Northern Ireland is working in conjunction with the rest of the UK to modernise the NHS pay system, to reward staff for what they do and for their skills and ability, rather than for the job title.

The proposals aim to facilitate the introduction of new ways of working that will accommodate technical advances and break down traditional professional boundaries. Section 8.1 sets out these proposals in more detail.

As an extension to Agenda for Change, "Making the Change" sets out a framework for the way the Healthcare Science professions need to develop and plan for the changing environment of health care in the future. It builds on the impact that science and technology has already had on the NHS and recognises that new developments will continue to be a major driver for change amongst the professions. Section 8.2 sets out the key issues and proposals.

3.2.4 European Working Time Directive

The European Working Time Directive requires that staff should not be working more than 48 hours per week. It also sets out recommendations for compensatory rest after working anti-social hours, and determines what (with regards to on-call) constitutes "work" versus "duty". It is a current legal requirement for the NHS to implement the directive in all areas, and with all staff groups. Whilst it is recognised that this has not yet been achievable it is a necessary requirement for all HPSS organisations to meet the Directive as soon as possible.

3.2.5 Priorities for Action 2002/03

The "Priorities for Action" sets out the Minister's expectations for the Health and Personal Social Services (HPSS) in the forthcoming year and the overall planning goals and key actions required to secure their achievement. Detailed priorities and actions are given for areas such as health development, primary care, workforce, winter planning and community care, acute hospital services, maternity and child health, the ambulance service, family and child care, care of older people, mental health and learning, physical and sensory disability as well as areas such as estate and IT. These priorities will guide the detailed planning and direction that the service in Northern Ireland will take in the short-term.

4. THE SCIENTIFIC AND TECHNICAL WORKFORCE

4.1 Workforce Structure

As previously mentioned, the Technical and Scientific workforce is made up of a number of different staff grades, with different roles, entry requirements and career structures. The following provides a brief overview of the main grades covered by this report.

4.1.1 MLSOs

MLSOs analyse a variety of sample types to diagnose different disease states or to monitor drug treatments, providing services within recognised quality systems. They use sophisticated analysers along with manual interpretative techniques within a diverse range of specialties. These include cytopathology, haematology, histopathology, microbiology, immunology, clinical chemistry, medical genetics, tissue typing and transfusion science. Many provide training programmes for trainee scientists and have management responsibilities for their laboratories. Where required, they provide a comprehensive out of hours working regime. .

Trainee MLSOs require a recognised or accredited Biomedical Science Degree (provided by the University of Ulster, Coleraine). This degree normally includes a year of work placement, preferably undertaken in a NHS laboratory. They are also required to undergo training for at least one year post graduation before applying for State Registration. University of Ulster Destination Survey data indicates that in 2001, 18 of the 40 graduates on the approved degree went into health care employment. However only an estimated half of these went into HPSS employment in Northern Ireland. Others took up employment in health sector positions in GB or the Republic of Ireland. Some graduates from the recognised degree choose to complete the MSc in Biomedical Science before entering employment. University of Ulster estimates that of the 10 students completing the full-time MSc each year, approximately 2/3 will enter HPSS employment in NI.

Graduates are also recruited from degrees that have not been approved or accredited but whose qualifications have been accepted by the Health Professions Council (HPC) as suitable. They must complete a Postgraduate Certificate in Biomedical Science (provided by the University of Ulster, Coleraine) and undertake training in an approved laboratory prior to applying for State Registration. In 2001, 15 trainees completed the Postgraduate Certificate and in 2000, 17 completed it.

Trainee MLSOs typically take between 1 and 2 years to complete the training required for State Registration depending on whether they entered with or without the recognised degree. However, Trainees are providing a service in the labs and in some cases, staff shortages restrict their ability to rotate between the required areas.

On achieving State Registration Trainees move to an MLSO Grade 1. It is generally thought that they need another two years of work experience before they can provide a stand alone out of hours service.

Post qualification there is no automatic career progression, other than through vacancies or service expansion.

4.1.2 MLAs

MLAs carry out a range of functions in pathology laboratories assisting MLSOs, including preparation of test media, making up and sterilising chemical solutions, plating samples, separating blood serum and plasma and patient identification entry. Whilst many enter the profession with a science degree, the minimum level of qualification required is five "O" levels, . MLAs are not State Registered, and there is no established career structure.

4.1.3 Cytoscreeners

Cytoscreeners check for early signs of cellular abnormality in women by examining cervical smears under the microscope. Entry-level requirements for the profession are five "O" levels, including English and at least one science subject. At present it takes two years to train a cytoscreener in the laboratory, at the end of which they are required to pass the NHS CSP exam in cervical screening. They are then reassessed every eight months, and receive update training every three years. The volume of work that staff members are allowed to undertake must be within a set range, and the quality of their work is constantly monitored.

4.1.4 ATO/MTO

ATOs provide support to the MTOs in a range of clinical areas, such as audiology, cardiology and renal medicine. There are no entry level requirements and they are not State Registered, nor is there a career structure.

MTOs work in a range of clinical and non-clinical areas. Those in clinical specialties such as Cardiology, Respiratory Medicine, Audiology, and Neurophysiology usually require a Clinical Physiology degree from the University of Ulster for entry. This degree includes a work placement year and can be completed either full or part time. Many specialties also require a year of training post graduation. At present, due to the short supply of staff particularly in Cardiology, this degree is not the only entry route, and trainees with alternative science degrees are also taken on. (According to the University of Ulster's Destination Survey figures, in 2000, 10 out of 20 graduates of the degree went in to MTO posts in Northern Ireland, and in 2001 the figures were 11 out of 16.)

State Registration is currently being developed with the Health Professions Council for a number of specialties and it is likely that later in 2002 it will be determined that the Clinical Physiology degree will be required for registration for these professionals.

However, it should also be noted that not all MTOs require degree entry, and some will not be required to become State Registered in the foreseeable future e.g. cardiac theatre technicians, post mortem technicians etc.

MTOs working for the Regional Medical Physics Agency have two entry routes, either degree or non-degree with BTEC/ONC being the minimum qualification. They provide technical services in scientific and other departments or are involved in the maintenance and development of biomedical equipment. The diversity of roles requires different academic qualifications and training, such as radiation physics, computing, physiology and instrumentation. Whilst there is no formalised training scheme in NI, a national scheme has recently been launched.

As with other technical and scientific roles, there is no automatic career progression for MTOs, and higher grades typically have a range of management responsibilities.

4.1.5 Clinical Scientists

Laboratory clinical scientists provide clinical interpretation of scientific data and advise on the diagnosis of disease and monitoring of treatment. They are involved in evaluation, research and development of investigative systems and set and monitor quality standards to meet current and future demand. Clinical Scientists at the highest grade (Grade C) provide scientific leadership and direction and may act as Head of Department.

At present a new (laboratory) Clinical Scientist would join the profession as a trainee on Grade A with both a primary degree (the minimum entry requirement) and, more normally, in addition a post graduate qualification such as a Masters and / or PhD. After 3-4 years training they would move to a Grade B (which is considered the career grade) and work towards their MRC Pathology qualification. This would normally take a further 5 – 6 years.

Appointments to Grade B positions may occur in some disciplines where expertise in a specialised field is required. Progression up the Grade B salary scale requires formal assessment.

To move to a Grade C post requires formal assessment by external assessors, as does attainment of any discretionary points.

Clinical Scientists employed by the Regional Medical Physics Agency can generally be split into medical physicists or clinical engineers. They apply scientific and clinical skills at a high level and provide advice, innovation and development to diagnostic and therapeutic techniques. Their roles range from Radiation Protection Advisors to provision of specialised clinical physiological measurement services.

The current main career route within the Agency is graduate entry followed by two years full-time education, incorporating a recognised MSc, and in-service testing. Two years part-time training leading to State Registration follows this. Further in-service development leads to Clinical Engineer, Chartered Physicist or Corporate Membership of the professional body and eligibility for Principal Clinical Scientist grading.

4.2 Workforce Composition

The data used for the analysis of the current workforce composition and data modelling has been provided by the DHSSPS and is based on the annual Trusts' download of payroll information (HRMS) as at September 2001.

This is the only source of information of this type available within the timescale of this review, and whilst it is recognised that discrepancies exist with regards to how the individual trusts have categorised their staff (whether within specialty, grade, or site) it is felt that for overall trends it is sufficiently robust.

Appendix D provides a series of tables showing the composition of the MLSO, MLA, MTO, ATO and Clinical Scientist workforces as per the Trust downloads, and key trends, in terms of:

- Department/speciality;
- Grade;
- Trust;
- Age;
- Gender; and
- Part-time/Full-time working.

The key workforce trends are outlined below:

4.2.1 Total Workforce Numbers

Table 4.1 shows the total number in each workforce group in 2001.

Table 4.1
Technical and Scientific Workforce (2001)

Workforce Group	Number in Workforce	Change 1998-2001	% Change 1998-2001
MLSO	545	38	7%
Trainee MLSO	55	24	77%
MLA	118	19	19%
Cytoscreeners	7	1	17%
MTO	306	29	10%
Trainee MTO	12	3	33%
ATO	51	2	4%
Clinical Scientist	93	27	41%

Source: HRMS September 2001 – RMPA own data 1998

4.2.2 MLSOs

In 2001 the largest proportion of MLSOs worked in Haematology (120), with significant numbers in Microbiology (76), Biochemistry (69), Bacteriology (69) and Clinical Chemistry (56). Between 1998 and 2001, largest growth areas in percentage terms were Histo/cytopathology and Tissue Typing which increased by 43% each (from 4 to 7 staff). Greatest MLSO numbers were

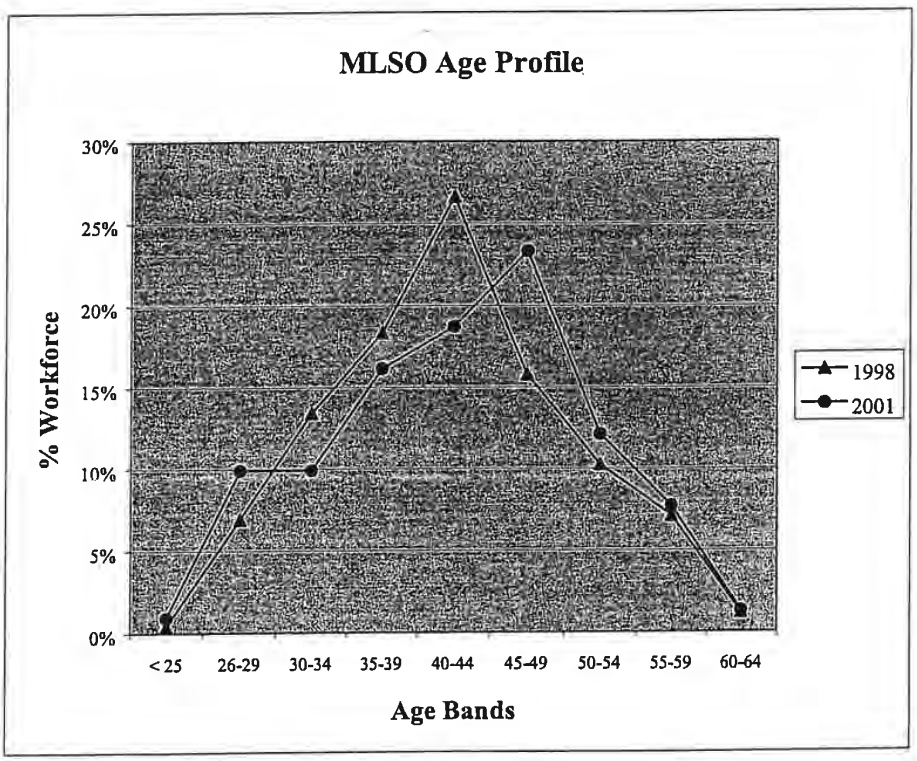
present in Belfast Link Labs which accounted for 225 MLSOs (41% of the total workforce).

In terms of grade mix within the MLSO group, the largest number work in the MLSO1 and MLSO2 grades. The breakdown in 2001 was as follows:

- MLSO1 – 194
- MLSO2 - 232
- MLSO3 – 86; and
- MLSO4 – 33.

Figure 4.1 shows the age profile for MLSOs for 1998 and 2001. It illustrates the recent shift in age distribution from a modal age of 40-44 to a modal age of 45-49 and the drop in numbers at lower age categories.

Figure 4.1
MLSO Age Profile



Source: HRMS

The gender split within the MLSO group has changed between 1998 and 2001, with a 5% increase in the proportion of females in the workforce. The balance in 2001 was:

- Female 52% workforce; and
- Male 48% workforce.

The proportion of women MLSOs decreases as grade increases. At MLSO1 grade, 60% were female (September 2001), but this decreases to 48% at MLSO2, 16% at MLSO3 and 12% at MLSO4.

The number of MLSOs working part-time has increased only slightly, from 64 in 1998 to 78 in 2001. This represents a percentage increase of one per cent from 13% to 14% in this period.

Overall, the MLSO staff group has grown by 7% between 1998 and 2001.

In 2001 there were an additional 55 MLSO Trainees not included in the figures above. These are staff providing laboratory services while undertaking the training required to achieve state registration. Almost three-quarters (73%) of the MLSO Trainees in 2001 were female.

4.2.3 MLA

The MLA workforce has grown rapidly between 1998 and 2001. Total numbers stood at 99 in 1998 but had risen to 118 by 2001 – a 19% increase. The MLA staff group is very young, with 42% being aged under 25 in 2001 and 25% being aged between 26 and 29. The workforce is predominantly female (62%), although the proportion of men has increased slightly (from 34% in 1998 to 38% in 2001).

Part-time working has decreased slightly in recent years – 11% of the group worked part-time in 1998 but only 9% were working part-time in 2001.

In 2001, the main work areas for MLAs were in Haematology, Bacteriology, Microbiology, Biochemistry and the Blood Transfusion Service. Each of these areas had between11 and 23 MLA staff.

4.2.4 Cytoscreeners

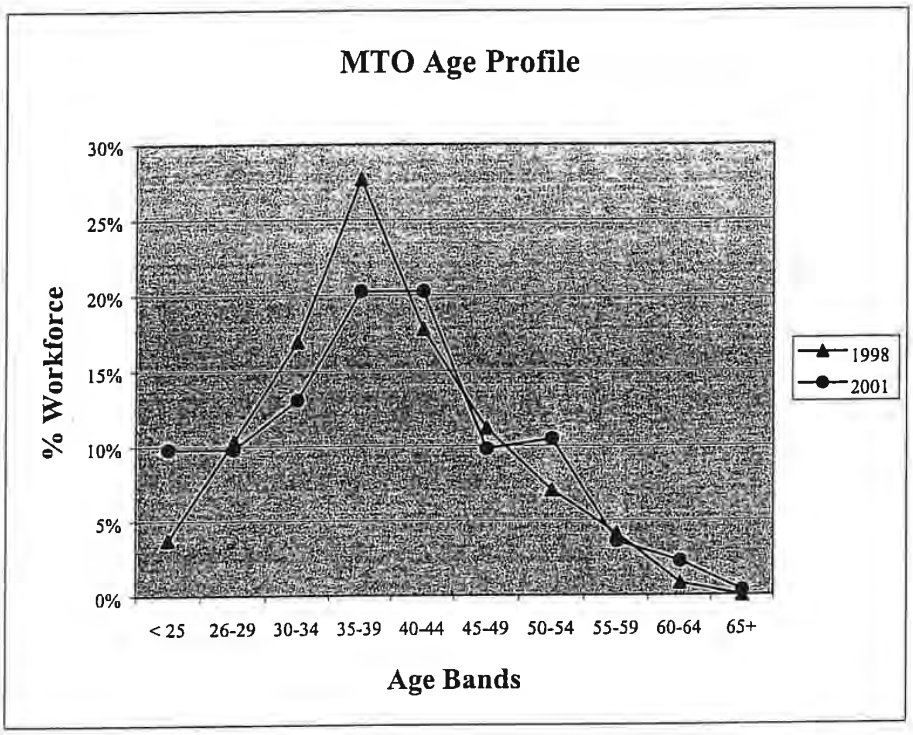
There are 7 Cytoscreeners in Northern Ireland, including one trainee, with an even spread of ages from early twenties to early sixties.

4.2.5 MTOs/ATOs

The MTO staff group has grown by 10% in recent years – total workforce size was 277 in 1998 and 306 in 2001. In addition, there were 51 ATOs and 12 Trainee MTOs in 2001. Many of the Trainee MTOs in 2001 were employed in Cardiology (5 in total) at either the Belfast City Hospital Trust or the Royal Group of Hospitals Trust.

The MTO age profile illustrates recent shifts, with an increasing proportion of staff in the lowest age category (under 25) and decreasing proportions in 30-39 age categories.

Figure 4.2
MTO Age Profile



Source: HRMS

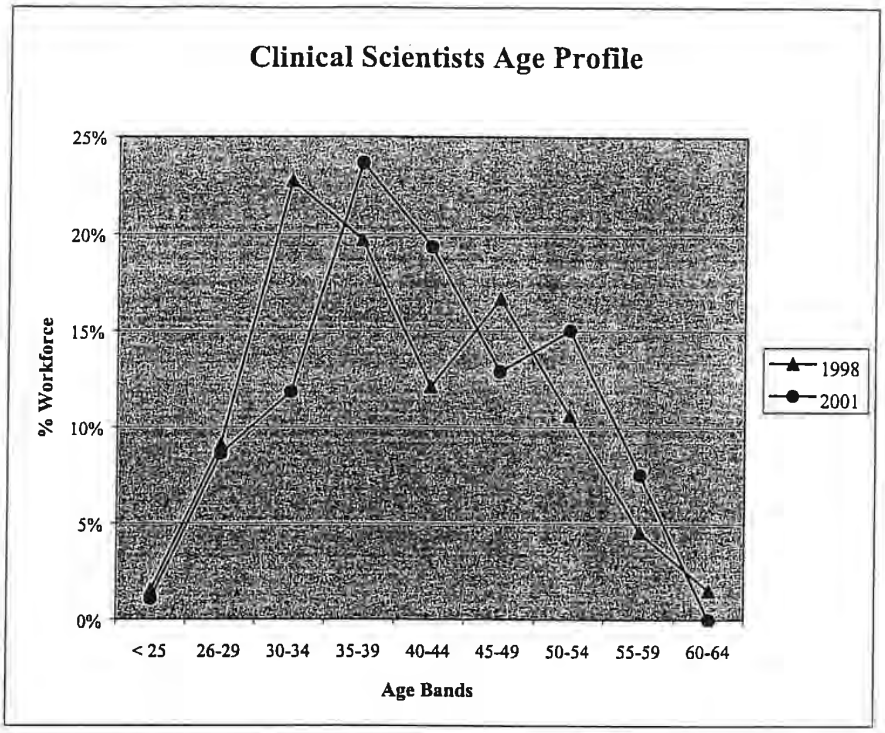
There are more women than men working as MTOs but the proportion of men in the workforce has increased slightly, from 40% in 1998 to 42% in 2001. Less than a fifth of the workforce works part-time and the proportion with part-time status has decreased slightly. In 1998, 20% worked part-time but the proportion had dropped to 17% by 2001. Almost all part-time MTOs are female (98%).

4.2.6 Clinical Scientists

The number of Clinical Scientists increased by 7% between 1998 and 2001 from 87 to 93. The largest proportion of this increase related to growth at Grade B. Clinical Scientists are primarily employed at the Belfast City Hospital Trust, the Royal Group of Hospitals Trust and the Regional Medical Physics Agency (RMPA). These account for 95% of the professional group.

As with MLSOs, the Clinical Scientists' age profile has changed in recent years. There was a substantially lower proportion within the 30-34 age group in 2001 than in 1998 (12% compared to 23%), and a larger proportion within the 40-44 age group (19% in 2001 compared to 12% in 1998). At September 2001, 23% were over 50.

Figure 4.3
Clinical Scientists Age Profile



Source: HRMS

60% of the Clinical Scientist group is male. This represents an increase since 1998 when 55% of the group was male. Only 10% of the workforce group works part-time and all of these Clinical Scientists are women.

5. KEY ISSUES - SUPPLY

Set out below are the key supply issues raised during key stakeholder interviews and focus groups in relation to recruitment and retention within their areas of the workforce.

5.1 MLSOs

5.1.1 Student Placements

A major concern expressed by all grades of MLSO was the lack of bursary available to students in their placement year. In other parts of the UK, such as Wales, students receive a bursary, and in other similar health care professions students receive some form of financial assistance during their degree, such as the bursary for nurses and the payment of fees for PAMs. In addition, placements outside of the NHS (for example in industry) are generally salaried. This inevitably makes the placements in the Health Service significantly less attractive than those outside the sector and there are concerns that it results in a lower calibre of student applying.

It also affects the number and calibre of graduates applying for permanent employment on graduation, as less numbers will have been inclined to experience the Health Service than might otherwise be the case. At present there are approximately 40 places on the University of Ulster's Biomedical Science degree, of whom on average only 17 / 18 will go on to NHS employment, not all necessarily in Northern Ireland. When recruiting new graduates, the service prefers to employ those who have completed their placement year in an NHS laboratory, but these numbers are limited.

Students expressed a concern that while they contribute significantly to the workload of the laboratory, they receive no financial recognition. Due to pressures on qualified staff, including the need to cover out of hours (which students cannot partake in) and the resultant time off "normal" hours to compensate, the availability of staff to provide proper structured training is limited. Placement students are concerned that they are perceived as simply 'an extra pair of hands' without always having the structured approach to training they require.

Staff also expressed a concern that trusts did not recognise the role which MLSOs play in delivering training to graduates, or the level of time and commitment which this requires.

5.1.2 Starting Salaries MLSO1

The starting salary for the entry-level Trainee MLSO grade at April 2002 is £11,181 - £12,527. This is considerably lower than most university graduates can expect to earn, particularly after 4 years of studies that incorporate work experience. After completion of training to state registration this rises to £15,244. These timescales and pay rates do not compare favourably with other healthcare professions who follow a similar degree based training route

e.g. nurses and PAMs. Concern has also been expressed that males are not attracted in to the profession because the low salary levels on offer are considered insufficient.

5.1.3 Pre-Registration Training

The duration of the pre-registration training varies for each student as they are required to gain experience in a range of specialties and it is sometimes difficult to release them from one area into another due to staff shortages. The indeterminate duration of the pre-registration training is discouraging to graduates considering a career in the health service.

5.1.4 Career Structure

Due to the lack of career structure, automatic promotion up the pay scale is not available, and staff may remain on the same grade for many years if no opportunities for progression arise.

In many trusts it is necessary to achieve a Masters prior to promotion to a MLSO Grade 2. Access and support to study is very dependent on the individual organisation in which the staff work. Progression beyond MLSO Grade 2 can also be slow. However, it should be recognised that some trusts have implemented quick progression from MLSO 1 to MLSO 2 grades, and this has been considered beneficial to their ability to retain staff.

An alternative career progression route for MLSOs is to transfer to the Clinical Scientist career path, providing the relevant entry qualifications for the Clinical Scientist grade are met. Whilst there are examples of staff who have achieved this, it is not a common career move.

5.1.5 Out of Hours Requirements

At present on-call is not a contractual requirement and is staffed on a voluntary basis. As the requirements for out of hours cover increase, along with increased constraints due to the working time directive, providing safe levels of cover, particularly on the smaller sites, is becoming a major issue.

If we anticipate an increased requirement for flexible and family friendly working practices and a continuing trend towards shift and extended working patterns, this situation will only become exacerbated. Multidisciplinary on call arrangements raise significant concerns about maintaining competence in a structure of training which is based around single disciplines. Staff participating on an on call rota are normally not available prior to or immediately after their shift, so reducing the availability of trained staff to supervise work during normal hours.

Many staff view on-call arrangements as their only way of boosting their take-home pay. Whilst this is available to them in some specialties, it is not available in those, such as tissue pathology, where out of hours cover is not required. This makes the salaries in these areas even less attractive and gives rise to disparities between staff on the same grade. Many staff are also concerned that a move to shift patterns to meet the Working Time Directive may have a detrimental effect on their earnings potential.

Some staff commented that there is significant pressure to do on call, even though it is voluntary, and that they are viewed unfavourably if they do not participate. However, they appreciate the pressure that their non-participation puts the remaining staff under in order to cover the hours.

5.1.6 Work/Life Balance

As we have seen, there are an increasing number of females entering the profession, although the numbers at higher grades are still low. Approximately 65% of relevant degree students are female and this is continuing to rise.

This rise in the number of females, coupled with a greater emphasis on family friendly policies, is going to put a greater strain on staff resources. Some part timers expressed concern that they were overlooked for promotion, and also that there was a gender bias towards males because they were willing to participate in on-call arrangements, which did not suit females with young families.

5.1.7 Shortfall in Consultant Staff

Concerns are being expressed with regards to the current and potential shortfall of (medical) Consultant level laboratory staff, particularly given their age profile. Whilst medically trained staff will be the subject of a separate review, the workload and quality issues which this raises impact on MLSOs and Clinical Scientists. Work is being carried out to extend the role of biomedical scientists (see section 7.4) which could potentially relieve some of the pressure whilst also providing additional career opportunities for these highly qualified and experienced staff.

5.2 MLAs

5.2.1 Pay Levels

This staff grade attracts very low levels of pay, significantly less than professions outside of the healthcare sector, including supermarket checkouts. Data from the annual Trusts' download of payroll information to the Department indicates that 92% of current MLA staff are without discretionary points, on a salary scale of £8,656 - £10,803. This inevitably gives rise to significant difficulties with recruitment and high turnover rates. For example, 42 MLA staff left HPSS employment in 2001 – approximately 24% of the workforce.

5.2.2 Career Structure

The entry criteria for this level are relatively low. However, whilst applications are generally small in number (and in some cases difficult to attract at all), of those received, many are from candidates who are significantly better qualified, to at least primary degree level. With current employment and recruitment practice it is inevitable that these candidates will be more successful at interview. Unfortunately, these staff are much more likely to be looking for a career with prospects, will become bored with the

routine nature of the work, and will move on as soon as a better opportunity presents itself.

Many of them enter at MLA as they see it as a route in to MLSO posts, or they have been given the impression that there is potential for a good career. Such potential very much depends on the management and site at which they work, and is by no means a certainty. Currently there is no requirement for MLAs to undertake CPD, nor is this anticipated in the foreseeable future.

5.3 Cytoscreeners

5.3.1 Pay Levels

Cytoscreeners pay scales at April 2002 are £9,784 - £10,106 for a trainee and £11,609 - £15,244 (excluding discretionary points) for an experienced member of staff. This does not compare favourably with other skilled roles, either within or outwith the health service.

5.3.2 Availability of Trained Staff

The numbers of screeners in Northern Ireland are very small (7), and turnover is very low. Should a vacancy arise, there are no trained staff available to fill such gaps. It is a major concern that succession planning needs to be managed and additional staff trained. However, this is difficult to achieve if there are no guarantees of a post once training has been completed.

5.4 Clinically Linked MTOs

(This report does not cover MTOs currently working in Dentistry, Pharmaceutical Services, Medical Photography, Works and Maintenance or Estates.)

5.4.1 Student Placements

As with Biomedical Science students, Clinical Physiology students do not receive a bursary during their work placement year. This does not compare favourably with their student colleagues in professions such as nursing and PAMs who receive financial assistance towards their degree costs, whether as a bursary or the payment of fees.

5.4.2 State Registration

At present there is no requirement for most MTOs to be State Registered although state registration is being explored for some of the clinical specialties. This results in a number of concerns. Firstly in relation to patient safety, where no track can be kept of an employee's competence or suitability for a post which delivers direct patient care. Secondly, there is a concern amongst staff with regards to the lack of recognition that their skills deserve, and which would be addressed by registration. Along with it would come a driver for ensuring the availability and need for continuing professional development, which would be welcomed by staff.

However, concerns have been expressed by staff in roles which are not at present expected to move to state registration, that this would devalue their skills and expertise, resulting in different levels of pay for essentially equivalent roles, so increasing the difficulty in recruiting to their professions.

It is also likely that state registration may in future require degree entry qualifications in to the profession.

5.4.3 Undergraduate Training

At present the University of Ulster degree in Clinical Physiology provides modules suitable for four of the specialties which come under the RCCP banner – cardiology, respiratory medicine, audiology, and neurophysiology. There are a maximum number of 35 places per annum on the degree course. The University of Ulster is the only University in Northern Ireland providing this degree.

There are currently difficulties providing relevant modules of the degree for those specialties outwith the four mentioned above, due to the small number of staff requiring training. Because MTO staff generally remain in their jobs for long periods of time, there are not necessarily going to be posts available for students when they graduate. However, it also means that when staff do leave and posts become vacant, there are no "spare" qualified staff in the market place to fill these vacancies. In specialties where numbers of staff are low this has a serious impact on their ability to continue to provide a service.

As a result, Trusts are offering students on their placement year full time employment, requiring the student to complete their degree studies on a part-time basis. As student numbers are small, this has a detrimental effect on the running of the degree course.

5.4.4 Pay Levels and Career Progression

Starting salaries for MTOs are very low, with a trainee scale of £8,163 - £9,784 and an MTO1 scale of £10,803 - £13,026 (excluding discretionary points). This is not attractive to graduates after four years of study, especially when compared to other healthcare professions. Progression through the grades is not automatic, and unless posts become available through service expansion, staff can remain on their current grades for very long periods of time.

In order to move up the grades staff are often required to undertake extra study. The potential to do so and the support available to achieve this are dependent on the site at which the employee works. In many hospitals, heavy workloads make this difficult to accommodate.

Due to the specialisation now required it is not easy to transfer between specialties, so many staff feel they have "nowhere else to go".

5.4.5 Staff Levels and Work/Life Balance

Because staff levels in a number of specialties, such as respiratory medicine, are low, and there are few unemployed trained staff in the market place, it is

very difficult to provide family friendly policies such as part time working, and to cover breaks such as maternity leave. Inevitably it results in other members of staff having to provide extra cover. As over 60% of this group of staff are female, this is a long-term issue that requires addressing.

As a result of staff shortages (either when posts become vacant or new posts are created due to service expansion) staff from other areas e.g. other specialties or qualifications, such as nursing, are being used to fill the gap, and this raises concerns about levels of expertise and patient safety.

5.4.6 Training Trusts

No recognition is received by trusts (or the staff involved) who carry out the training of students. The majority of training is carried out by the two main Belfast Trusts – Belfast City Hospital Trust and The Royal Group of Hospitals Trust. These organisations tend to see these students move on to other posts as vacancies arise, which means they are continuously training staff (this applies in particular to Cardiology services).

In order to gain relevant experience, many students are required to undertake part of their placements in a tertiary centre, rather than at a smaller site. At times it can be very difficult to provide the level of training expected, due to the requirement to also manage heavy workloads.

5.4.7 Regional Medical Physics Agency

Significant difficulties are being experienced in recruiting and retaining MTO staff, due to the lack of a structured education and training programme and the low levels of pay. A number of MTOs have trained as radiographers and undertake similar roles, but there is an increasing differential between the two pay scales, now estimated at over 20%, which has a significant impact on the Agency's ability to recruit.

5.5 Clinical Scientists

5.5.1 Training Structure, Funding and Succession Planning

The Department funds three places for trainee Grade A posts in Biochemistry. However, no training for any other specialties is currently centrally funded. Some specialties fund their own training programmes, such as Haematology and Medical Genetics, but these are ad-hoc.

Due to the small number of posts in individual specialties and the long timescale required to train replacements, long-term succession planning is very important. There is considerable concern that there will be insufficient trained staff available to replace forthcoming retirements. Using a retirement age of 55, 36% of clinical scientists could potentially retire in the next ten years. Even if this retirement age is increased to 60, 23% will retire.

5.5.2 Regional Medical Physics Agency

The Regional Medical Physics Agency has had significant difficulty in recruiting Grade B Clinical Scientists, particularly in radiodiagnostic physics,

as the number of qualified staff available to fill such posts in Northern Ireland are limited, and there is a shortage of such staff in the rest of the UK.

The Department currently funds four trainee Grade A Clinical Scientist posts in the Agency.

5.6 Low Pay and Profile

Common to all staff groups, except perhaps Clinical Scientists, was the view that their roles had a very low profile, both within the service and externally. They felt that the public viewed the NHS as being "doctors and nurses" with little recognition for the essential role which they provide. This means that few school leavers are aware of, and therefore going to consider, a career in their professions, so reducing the pool of potential applicants or relevant graduates. This, coupled with the low levels of pay offered, in particular to University Graduates, does not make the roles attractive.

Concern was expressed that within organisations the role and workload of these groups of staff was not fully recognised, particularly in relation to appointment of new Consultant staff or the expansion of clinical services, where the implications for support functions may not be adequately acknowledged or resourced.

However, there was a strong view that the jobs were rewarding (albeit not necessarily in financial terms), with good experience, challenging work, in a constantly changing environment and with a worthwhile purpose.

6. KEY ISSUES - DEMAND

6.1 Laboratories – covering MLSO / MLA / Cytoscreeners / Clinical Scientists

Whilst the issues around the supply of laboratory staff vary by staff group, the factors dictating demand are common to all. The key areas at present are:

- an increase in the volume of activity. Data from the Belfast Link Labs, which represents approximately 60% of Northern Ireland lab activity and the Craigavon Area Hospital Trust labs indicates that laboratories have consistently seen an increase in tests requested of, on average, 6-7% per annum for a number of years. For some specialties the increase is much greater. For example, the NI Assembly Public Accounts Committee report on pathology labs noted that over the last five years the volume of tests had increased by 60% in biochemistry whereas in other specialties the increase was around 4% (reference 06/01/R, published February 2002). The PAC recommended that the Department review how workload is measured in laboratories, so that it can properly benchmark activity at different locations. Significant increases in primary care requests and changes to clinical practice – "whereas senior consultants would use a test to confirm a diagnosis, nowadays less experienced doctors are using tests to assist diagnosis", along with clinical governance and the increasing threat of litigation are considered key drivers behind this. Trusts also need to recognise that appointments of additional medical consultants in any specialty inevitably result in an increase in workload for support areas such as laboratories, and such areas have little control over this increase;

- an increase in the complexity of the tests requested and the depth and speed of reporting required;

- an increasing requirement for laboratories to achieve and maintain CPA accreditation, including requirements for the appointments of Quality Managers, along with increasing workload due to areas such as clinical governance, waste disposal, infection control, clinical audit, blood safety and blood transfusions;

- an increasing need to provide out of hours cover and for this cover to result in staff needing to work continuously throughout their on—call duty. The ability of staff groups to provide this cover within their current establishments whilst meeting the requirements of the Working Time Directive and the needs of staff with regards to family friendly working practices is limited. In order to achieve compliance with the Working Time Directive, the availability of staff during normal hours is significantly reduced if compensatory rest requirements are to be properly met;

- an increasing demand on staff with regards to providing training officers for students on degree placements;

- the ongoing development of new areas of laboratory science, for example in the fields of genetics and molecular biology, along with increasing sub-specialisation, and the need to keep abreast of new techniques; and
- the development of near patient testing which could potentially require significant input from laboratory staff, particularly with regards to quality control.

6.2 Clinical MTOs

Increased demand for staff is resulting from a variety of factors that are continuously evolving:

- the changing roles of medical staff, with the requirement for other professions to take on extended roles previously delivered by doctors;
- potential developments in the delivery of health care e.g. digital hearing aids and neonatal screening, which will significantly increase the level of audiology technicians required, and the National Strategic Framework for Cardiac Services, which will have a significant impact on Cardiology services;
- changes to the working patterns and hours of delivery. At present many clinics staffed by MTOs are run during normal "office hours". However, with the drive towards family friendly services and with the pressure on waiting lists etc. we are likely to see an increasing demand for evening and weekend clinics;
- for those staff groups who currently provide a 24-hour service, such as cardiac theatre technicians and perfusionists, the requirements of the Working Time Directive will put significant pressure on services currently covered by a small number of staff; and
- some of the impact of demand increases at smaller sites could potentially be offset by increases in technology such as telemedicine, allowing junior staff on site to carry out relevant tests and submit results to larger sites for analysis and diagnosis.

7. DATA MODELLING

7.1 Source of Data

The baseline data used has been supplied by the DHSSPS, and is based on the annual Trusts' download of payroll information (HRMS) as at September 2001. As previously acknowledged, whilst it is known that there are discrepancies within the way in which the relevant organisations have categorised their staff, particularly between specialties, it is felt that the overall numbers (which are used for the data modelling) are sufficiently robust as to enable trends to be predicted.

All calculations are based on headcount, as opposed to whole time equivalents (w.t.e.).

7.2 Modelling Assumptions

In developing a supply and demand model for each of the technical and scientific groups, a series of assumptions was developed based on the HRMS data and feedback from key informants. The assumptions are set out below:

7.2.1 Retirements

The following average retirement ages are based on information gathered by the Department on current retirement trends;

MLSO	56 years
MLA	55 years
MTO	53 years
CS	57 years

Age information for each staff group had been provided in 5-year age bands (see Appendix D). We have assumed a linear age spread within each 5-year band and taken a retirement age of 60 for each group. This is to take account of the fact that while the average retirement age is seen to be dropping, some staff are still working well beyond 60. Whilst the trend is currently towards a younger retirement age, the extension of the state pension age for women to 65 may effect this in due course.

7.2.2 Other Leavers

The Department has completed an analysis of staff leaving HPSS employment during 2001 and a percentage estimate has been calculated for each staff group (excluding retirements). Whilst it is recognised that this is based on a snapshot in time, the estimates are considered conservative. The estimate for MTOs based on this information was 5%, however, on discussion, the Steering Group felt this was unusually high and the estimate has therefore been reduced to 1.5%. The Clinical Scientists also recommended a reduction from the 6% calculated to 4%, which they felt

more accurately reflected the norm. The following have therefore been applied:

MLSO	3%
MLA	29%
MTO	1.5%
Clinical Scientist	4%

Categories are used by the Trusts to record the reason for leaving. They included, for example, those leaving for reasons of ill health, dismissal, personal reasons, family reason, job offer from elsewhere etc. However, it was considered that the categorisation of the data was insufficiently robust to enable a thorough breakdown to allow projections by category of leaver.

7.2.3 Graduating Students

The number of graduating students available to fill MLSO vacancies has been estimated on the basis of information provided by University of Ulster for the last two years. The estimated annual number of students entering the workforce is 31:

- 9 of the 40 graduates from the BSc in Biomedical Science;
- 6 of the 10 graduates from the MSc in Biomedical Science;
- 16 graduates from other degrees enrolling on the Postgraduate Certificate in Biomedical Science.

While an Honours degree is the minimum entry requirement for Clinical Scientist positions, the entry requirements for MLA and MTO positions are variable - only some require degrees as a minimum criterion. Where a degree is required, the subject varies by specialty. Therefore, it is not possible to estimate the flow of new graduates/recruits into these professions.

7.2.4 Current Vacancies

The Department carried out a vacancy review in March 2001 for MLSO and CS grades and a percentage by staff group has been applied. Information gathered during the interview process has been used to estimate a percentage for MTOs and MLAs. These percentages have been adjusted for known current vacancies in the Regional Medical Physics Agency (RMPA). The percentages applied to the model are:

MLSO	4 %
MLA	4%
MTO	5% (RMPA 21%)
Clinical Scientist	3 vacancies

It is assumed that any current vacancies will be filled in the first two years.

7.2.5 Workload Projections

This is to cover general increases in workload and known service developments (cancer and cardiology) but excludes the impact of the Working Time Directive. Whilst data is available on annual increases in volumes of tests requested in laboratories, which indicates increases of 6-7% per annum, this does not take in to account many factors which are more difficult to quantify. These factors include increasing complexity, reporting requirements and timescales, the impact of increased clinical governance and areas such as CPA accreditation, the need for training time, and the offsetting benefit of increased technology. A conservative estimate has therefore been made of an impact on MLSO and MLA staffing of 1% per annum increasing to 2% per annum by year 5.

For MTO staff the measurement of increased workload is even more difficult, particularly given the range of specialties included in the group. Most of the staff in this group are not currently impacted by the Working Time Directive, and therefore no major increase for this has been projected (see below).

However, it needs to be recognised that developments in Primary Care, the potential requirements for evening clinics, the reduction in junior doctors hours, high waiting times (for example there is currently a 6 – 9 month waiting time for a non-urgent echocardiogram at the Royal Group of Hospitals Trust) and other such factors will all impact on future workload. We have estimated an annual increase in workload of 5% per annum which is assumed to result in a requirement for an additional 1% staffing per annum increasing to 2% over five years for all specialties (except the Regional Medical Physics Agency). This equates to 3 staff in 2002/03 rising to 6 in 2006 / 07. Known developments included within this are 1 MTO for Spinal Monitoring and potentially 2 MTO Cardiology for Altnagelvin.

Based on detailed workforce planning carried out by the Regional Medical Physics Agency, an annual increase of 2 Clinical Scientists and 3 MTOs has been included. This includes 1 CS and 1 MTO per annum under service expansion for cancer services.

7.2.6 Working Time Directive

All of the Trusts are currently considering the impact of WTD on their staffing and rotas but while some are testing pilot shift patterns, very little definitive work has been undertaken on which to base an estimate of the impact of WTD on this professional group. Trusts are at such an early stage in Trade Union consultation and equality proofing that it has not been possible to obtain any estimates of WTD impact in terms of increased staff requirements. Therefore assumptions have been developed on the basis of qualitative feedback from key informants and agreed with the Steering Group.

It is assumed that MLAs, Clinical Scientists and the majority of MTOs (with the exception of theatres and Cardiology) are not currently affected by the Working Time Directive as they either do not provide an out of hours service, or are unlikely to exceed the 48 hour week, nor are they anticipated to do so over the next five years.

The main group of staff currently affected is the MLSOs. The impact will be greater on smaller sites where compliant shift patterns are difficult to achieve with small staff numbers. A 10% increase in staff numbers has been assumed to accommodate new shift patterns. On the assumption that these are filled in the first two years, no further increase for WTD is projected.

For the MTOs the main staff groups assumed to be affected are theatres and Cardiology. Very little work has as yet been carried out to determine the increased staff numbers required, so a similar estimation as that used for the MLSOs of 10% increase in staff numbers for those specialties has been applied.

7.2.7 Loss to Workforce Due to Work / Life Balance

Whilst it is recognised that there may be an increase in males requesting reductions in working hours for family or other reasons, this number is assumed to be small, and the projections have therefore been based on the numbers of females entering the workforce.

Looking at the current composition of the MLSO workforce and student population, we have assumed that there will be an increase in the percentage of women in the workforce and that the percentage of women working part-time will remain fairly constant (at around 25%). Therefore we have assumed that an additional 1.5% of the workforce will wish to work part time per year. This is considered conservative given the increasing introduction of family friendly policies.

For MLAs, both the percentage of women, and the percentage working part-time have decreased over the last four years. We have therefore projected a conservative estimate of a 1% increase each year in part-time working for the next five years.

For MTOs the percentage of women in the workforce has remained fairly constant, at around 58%, with 30% working part-time. We have therefore projected an estimated increase of 1% of the workforce wishing to move to part-time each year.

For Clinical Scientists, whilst the percentage of women in this staff group have dropped, the percentage working part-time has increased, so again an increase of 1% per annum has been assumed.

7.2.8 Continuing Professional Development

Whilst no policies currently exist for CPD across the workforce, we have assumed 10 sessions per annum per member of staff and converted this to a w.t.e. for MLSOs and MTOs. Clinical Scientists have been excluded as their career path currently provides (in the main) for their CPD and no significant changes are anticipated at present. No CPD has been included for MLAs as there is currently no requirement for this staff group to undertake a minimum level of CPD.

7.2.9 Cytoscreeners and ATOs

Due principally to the small number of staff involved, data modelling has not been carried out for these staff groups.

In 2001, there were 6 Cytology Screeners in Northern Ireland and one Trainee Cytology Screener. Their age profile indicates that one of these six professionals is anticipated to retire in the next 5 years (assuming a retirement age of 65). There are two Cytology Screeners aged between 50 and 59, two aged between 40 and 49 and one aged between 20 and 29. Therefore, in terms of succession planning no immediate issues exist for this group. However, in the longer term, new trainee Cytology Screeners will be required to replace those lost due to retirement, particularly if early retirement is anticipated for this group.

Due to the entry level and qualification requirements of ATOs they are not impacted by some of the same issues as above, and staff increases or shortages will be as a result of service expansion and market forces.

7.3 Models

Applying the above supply and demand assumptions for each staff group results in the following estimates of staff losses and requirements for additional staff in the 5 year period from 2002 to 2007. Each table includes an estimate of the number of additional posts to be filled and comments about the potential sources of recruits for these posts and their likely availability are included below.

7.3.1 MLSO

Table 7.1
Supply and Demand Estimates - MLSO

	2002/03	2003/04	2004/05	2005/06	2006/07	Total
Supply						
Retirements	7	11	11	11	11	51
Other Leavers	18	18	18	18	18	90
Worklife Balance loss	9	9	9	9	9	45
Graduating Students	-31	-31	-31	-31	-31	155
Supply Shortage	**3**	**7**	**7**	**7**	**7**	**31**
Demand						
Current vacancies	11	11	0	0	0	22
Workload Projections & Service Expansion	6	8	9	11	12	46
Working Time Directive	30	30	0	0	0	60
CPD	12	0	0	0	0	12
Potential Additional Requirements	**59**	**49**	**9**	**11**	**12**	**140**
Net Demand	**62**	**56**	**16**	**18**	**19**	**171**

Note: Total Workforce 2001= 600 (Including 55 Trainee MLSOs)

In terms of meeting the net estimated demand over the five years (171 posts) there is scope to increase the proportion of graduates from the University of Ulster Biomedical Science BSc and MSc degrees entering health service employment in Northern Ireland . Only around 20% of those currently completing these degrees take up health service employment in NI. Addressing the supply issues set out in Section 5.1 could result in a larger number of these students entering the workforce.

The proportion of graduates from the Biomedical Science BSc entering HPSS employment would need to increase to 50% to meet the current vacancies estimated in Table 7.1 for year 1 and 2 of the projections. This would equate to an estimated 11 more new entrants to the profession per year – 55 in total. Further increases to the proportion of students entering HPSS employment could contribute to meeting the additional potential demand identified.

Demand issues, especially with regards to the working time directive may potentially create a significant number of additional posts to be filled. If these demand issues such as current vacancies and WTD are not filled in 2002/03 or 2003/04, they will need to be carried forward in to subsequent years.

7.3.2 MLA

Table 7.2
Supply and Demand Estimates - MLA

	2002/03	2003/04	2004/05	2005/06	2006/07	Total
Supply						
Retirements	1	1	1	1	1	5
Other Leavers	34	34	34	34	34	170
Worklife Balance loss	1	1	1	1	1	5
Estimated Annual Turnover	**36**	**36**	**36**	**36**	**36**	**180**
Demand						
Current vacancies	2	2	0	0	0	4
Workload Projections & Service Expansion	1	1	2	2	2	8
Potential Additional Requirements	**3**	**3**	**2**	**2**	**2**	**12**

Note: Total Workforce 2001- 118

Retention is a particular problem for MLAs resulting in much higher rate of staff leaving health service employment than for any other technical and scientific group. The lack of career prospects and salary levels for MLAs means that the potential to fill the vacancies created by these losses is y dependent on market forces. Whilst the service may be able to fill posts for short periods, there is considerable effort and cost associated with the ongoing recruitment required at this grade. It is therefore important that the service looks to ways in which retention can be improved.

7.3.3 MTO

Table 7.3
Supply and Demand Estimates - MTO

	2002/03	2003/04	2004/05	2005/06	2006/07	Total
Supply						
Retirements	8	3	3	3	3	20
Other Leavers	5	5	5	5	5	25
Worklife Balance loss	3	3	3	3	3	15
Estimated Annual Turnover	**16**	**11**	**11**	**11**	**11**	**60**
Demand						
Current vacancies	8	8	0	0	0	16
Workload Projections & Service Expansion	6	6	7	8	9	36
Working Time Directive	16	16	0	0	0	32
CPD	6	0	0	0	0	6
Potential Additional Requirements	**36**	**30**	**7**	**8**	**9**	**90**

Note: Total Workforce 2001- 318 (Includes 12 Trainee MTOs)

Not all types of MTO staff require degree level entry qualifications. Therefore, it is not valid to include only the number of Clinical Physiology degree graduates in the above model. (In 2000, 50% (10) of Clinical Physiology graduates took up MTO posts in Northern Ireland and in 2001 this rose to 69% (11) but the number of students graduating from the course dropped to 16.)

However, it is clear that in some specialities – particularly cardiology - there are not sufficient numbers of graduates at present to meet current demand. The potential increases in demand modelled above would further exacerbate this situation in some specialties. Further work should be carried out on a specialty basis using the above model to determine the exact number required and the size of the shortfall.

7.3.4 Clinical Scientist

Table 7.4
Supply and Demand Estimates - Clinical Scientist

	2002/03	2003/04	2004/05	2005/06	2006/07	Total
Supply						
Retirements	1	1	1	1	1	5
Other Leavers	4	4	4	4	4	20
Worklife Balance loss	1	1	1	1	1	5
Estimated Annual Turnover	**6**	**6**	**6**	**6**	**6**	**30**
Demand						
Current vacancies	2	1	0	0	0	3
Workload Projections & Service Expansion	3	3	3	3	3	15
Potential Additional Requirements	**5**	**4**	**3**	**3**	**3**	**18**

Note: Total Workforce 2001- 93

Whilst Table 7.4 suggests a shortfall of staff the supply of potential applicants for laboratory CS posts is not considered to be a limiting factor. The ability to fill these posts will be much more dependent on the funding available to increase the number of posts and training provided. (At present the Department funds three trainee laboratory CS places in Biochemistry.)

The availability of staff to fill RMPA posts is more of a concern, particularly in areas where there are known national shortages, and where funding for training is currently limited (the Department currently fund four trainee Grade A posts).

8. CURRENT NATIONAL POLICIES

It is very important to take cognisance of work that is currently being developed, both on a UK wide basis and in Northern Ireland, in areas which will make a contribution to alleviating many of the issues raised. Whilst it is recognised that much of this work will take some time to bring to completion, Northern Ireland should be looking to see which areas it can progress in tandem with or ahead of the rest of the UK.

8.1 Agenda for Change

This sets out the Government's proposals to link pay progression to development of skills and knowledge and includes plans for:

- the introduction of a new NHS Job Evaluation Scheme that will ensure that the new pay system is consistent with legislation on equal pay for work of equal value;
- the inclusion of some smaller groups of highly qualified staff within the remit of the Review Body;
- the creation of a single pay negotiating council for staff who stay outside the Review Body system, replacing the current separate Whitley Councils and negotiating bodies;
- the harmonisation of core national conditions of service, giving staff an NHS-wide pay system, rather than the mixture of rules that apply at present;
- new, simplified and fairer national pay bands defined by job weight as determined by the system of Job Evaluation rather than by history or job title;
- the ability to develop new roles and jobs locally or nationally and reward them fairly using the Job Evaluation system;
- improved opportunities for switching between roles at the same level, or progressing to more demanding roles within the new system of simplified pay bands;
- pay progression within pay bands linked to a new skills and knowledge framework, to reward staff who take on new skills and responsibilities; and
- the proposals to be agreed in partnership with trade unions and professional bodies.

These proposals will give help to defining career pathways, which will be assisted by the development of detailed job descriptions that reflect ability and achievement as well as local needs and circumstances. They will also allow for the development of staff into advanced roles without this necessarily requiring a move into management.

8.2 Making the Change

This sets out the way the Healthcare Science Professions need to develop and plan for the future in order to:

- improve the supply of scientific and technical staff, so that adequate numbers of professional staff are available to deliver high quality scientific services;
- strengthen and modernise education and training, so that staff are fit for purpose and committed to ongoing development;
- introduce a robust regulatory infrastructure to enhance public confidence;
- value staff for the work they do and create a good working environment;
- develop an infrastructure for building attractive career pathways so that high quality staff can be recruited and retained; and
- ensure their contribution is fully recognised within the NHS, particularly by Trust Boards.

Key Issues being addressed include:

- the creation of a new Health Professions Council to replace CPSM, with a strategic role in setting and reviewing standards. This council will have a duty to work in partnership with key stakeholders, such as education providers, employers and the Quality Assurance Agency, to streamline the development and maintenance of education and training standards. It will also be able to regulate current and emerging staff groups;
- establishment of a single transparent and accessible Health Professions Register and explicit linkage of registration to evidence of continuing professional development and maintenance of competence;
- protection of common professional titles; and
- proposals for the effective regulation of support workers.

8.3 Diploma in Professional Practice (Pathology)

A new placement scheme has been developed in partnership between the School of Biomedical Sciences, University of Ulster (UU) and the N.I. Institute of Biomedical Sciences (IBS). This diploma was piloted in 2001 at Antrim Hospital and in the current academic year (2002) a further three sites have joined the scheme.

The aim is to shorten the time taken to achieve State Registration post graduation for BSc (Hons) students of Biomedical Science from UU. To complement the placement a half module of academic study (Biomedical Professional Practice) will be delivered to students in the academic semester prior to their placement year. This module is delivered mainly by practising MLSOs and will further prepare the students for placement in a hospital pathology laboratory setting.

Evaluation of this new placement training will be carried out by University staff, the N.I. IBS and those sites that have participated in its delivery. It will take place at the

end of each academic year to ensure appropriate monitoring of the content, process and effectiveness.

8.4 Extended Role of Biomedical Scientists

Currently there are severe difficulties being experienced by the service as a result of the shortage in Consultant histopathologists. With the increasing pressure for specialisation, particularly with regards to cancers, increasing reporting requirements and the multidisciplinary approach now being adopted towards cancer treatment, requiring consultants to spend more time attending meetings, there is severe pressure on their workload.

As a result, advanced biomedical practitioners have been introduced for cervical cytology. This will enable suitably experienced and qualified staff, other than consultant staff, to sign out abnormal smears, so significantly decreasing the pressure on consultant staff. It also provides a further career opportunity for highly experienced biomedical staff.

Whilst there are issues such as continuing registration which still need to be resolved, the success of this new position should be monitored to evaluate its potential for introduction to other specialties.

9. CONCLUSIONS AND RECOMMENDATIONS

From both the qualitative analysis and the detailed data modelling we can draw the following conclusions and recommendations;

9.1 MLSO/MLA/Cytoscreeners

For the MLSOs the projected shortfall in staff is a serious concern due to the very limited number of students currently studying for relevant degrees, and the ability to attract these students in to the HPSS. It is clear that in the next five years, these staffing gaps will not be able to be filled by graduates alone even if significantly more were attracted into HPSS careers, and alternative measures will need to be taken. This has to include reviewing alternative strategies for service provision.

For MLAs, the most significant concern is the high level of turnover and the service's ability to attract staff to these posts given the low level of pay and the ability to retain them.

Whilst Cytoscreeners are small in number, they have an important role to play, and it is essential that the service is in a position to manage any anticipated changes in personnel.

We would make the following recommendations;

9.1.1 Bursaries for Student Placements

There is a strong view that the offering of a bursary or some form of financial assistance for students in their placement year for the Biomedical Science degree would significantly assist in recruitment to the Health Service for MLSO staff. Unlike other healthcare professions such as nursing, the Department does not currently fund this course. It should review the potential for establishing some form of financial assistance and therefore bring these staff more in line with their colleagues in other professions.

9.1.2 Extension of Biomedical Scientist Grade

As previously mentioned, the implementation of the extension of the Biomedical Scientist grade in cytology should be reviewed to assess the appropriateness of extending the grade in other specialties, in order to alleviate pressures in laboratories resulting from a shortage of medical staff.

9.1.3 Diploma in Professional Practice (Pathology)

The pilot should be evaluated and modified if necessary to ensure its ready adoption on a wider scale within NI and elsewhere. Reducing the timescale for training required by new Biomedical Science graduates prior to State Registration (and therefore the increase in salary scale that goes with it) should assist in the recruitment of new appropriately qualified staff to the profession.

9.1.4 Career Structure

Work should be carried out to review the skill mix required and the potential to develop some form of career structure for MLAs which includes CPD. Given the current shortfall in MLSO staff, the potential for current MLA staff to progress to MLSO grades should also be considered.

Trusts should also review the potential within their organisations to fast-track staff from MLSO1 to MLSO2 grades.

The reasons for the currently low proportion of women at the more senior MLSO grades, in comparison with the profession as a whole, should be investigated along with, if relevant, potential means by which to address the gap.

9.1.5 Cytoscreeners Succession Planning

The Department should review the potential for increasing the number of trainee Cytoscreeners over the next five years to ensure qualified staff are available to fill vacancies which will arise due to retirements.

9.2 MTOs

Again the modelling has demonstrated a potential shortfall in available staff over the next five years. A significant element of this relates to specialties such as Cardiology where there is a shortage of students graduating with relevant degrees. We would therefore make the following recommendations:

9.2.1 Clinical Physiology Degree

Work should be carried out between the University of Ulster and the service to review the delivery of the Clinical Physiology degree to increase the flexibility of its approach and therefore the specialties that it can support. This should help to determine ways in which small numbers of staff for specialist areas can receive the relevant training and qualifications, whilst recognising that the numbers required each year will fluctuate.

9.2.2 Bursaries for Student Placements

As with MLSOs, there is again the view that the offering of a bursary or some form of financial assistance for students in their placement year would significantly assist in recruitment in to the Health Service, and bring this group of professions more in line with their clinical colleagues.

9.3 Clinical Scientists

Recruitment in to this staff group (for laboratory staff) is not a major concern, but a number of staff are due to retire in the next five to ten years and this needs to be recognised now.

Current national shortages for CS staff for the RMPA are a concern and alternative measures may need to be reviewed to overcome this.

9.3.1 Training Funding

In order to ensure that suitably qualified staff will be available in the future, the Department should review the training currently funded for Grade A Clinical Scientists to extend it, where necessary, across the laboratory specialties. It should be targeted to specialties of greatest need, based on an annual review of future staffing shortages and succession planning for retirements.

The Department and the RMPA should also review the potential for further developing training schemes in the Agency to help overcome their recruitment problems and increase the potential to develop expertise in these areas within Northern Ireland.

9.4 Service Wide

There are also a number of recommendations we would wish to make which apply to all specialties and staff groups covered by this review:

9.4.1 Service Strategies

Workforce planning is very difficult to carry out with any degree of accuracy if the future shape and provision of services is unclear. As mentioned earlier, the report of the Acute Hospitals Review Group (Hayes Review) is currently being considered. Whilst this clearly sets out a potential shape for the future provision of services, the outcome of the review is not yet known.

A clear strategy for the future structure of laboratory services in Northern Ireland is needed. The Hayes review stated that "We believe that the pressures on the pathology service to deliver a high quality cost effective service will make it increasingly difficult to sustain the current configuration of laboratories". Alongside this, development of an integrated IT strategy and system would significantly assist laboratories in the management of their workload and would need to play a key role in any redeveloped service model. Common approaches to equipment purchase will enable easier movement of staff without requiring additional training.

In the short term, networking arrangements across the province should be encouraged to alleviate the most severe pressures. As potential plans and strategies emerge, workforce requirements will need to be continuously reviewed.

9.4.2 Raising Role Profiles

We would recommend that work be carried out to review current recruitment practices in the service. The aim should be to increase the profile of roles carried out by the Technical and Scientific staff groups and increase public awareness, particularly amongst school leavers, in order to attract a greater proportion in to relevant further education courses.

9.4.3 Benchmarking

Benchmarking is already carried out in Belfast Links Laboratories and work should be carried out to set benchmarked norms for workload across the province based on volumes, complexity, training obligations etc. to assess staff numbers required. This would assist in determining detailed workforce planning and aid decisions with regards to priorities for future resource investment. It would also provide a useful tool for assessing, for example, potential service reconfigurations such as those proposed by Hayes. This recommendation echoes that of the NI Assembly Public Accounts Committee following its review of Pathology Laboratories (reference: 06/01/R).

9.4.4 Funding for Training

Work is required to quantify the financial impact of the increasing requirements for training, including the appointment of training officers, and the impact of proposed requirements for CPD for staff grades where such formal training programmes do not currently exist.

9.4.5 Categorisation of Staff on Payroll

It would be useful if agreement could be reached as to the classification of staff on the payroll system to enable valid comparisons of staffing levels to be made between organisations in the future. For example, the range of names used for differing specialties does not lend itself to useful comparisons between organisations.

9.4.6 Further Workforce Planning at Specialty Level

As previously mentioned, this report should act as a starting point for more detailed workforce planning. By its very nature it is a broad-brush approach, and more detailed planning should be carried out on a specialty basis (not necessarily on a trust or site basis). This would enable more detailed assessments to be made of the issues and allow alternative service configurations to be modelled.

This work is particularly imperative with regards to the implementation of the Working Time Directive, which is now European Law and requires to be complied with as soon as possible.

APPENDIX A
COMPOSITION OF STEERING GROUP

APPENDIX A – Steering Group Members

MLSO, MLA and Cytoscreeners

Alfie Stewart	Royal Hospital HSS Trust
Alison Geddis	Belfast City Hospital HSS Trust
Andrew Mc Cann	Craigavon Area Hospital Group HSS Trust
Chris Funston	United Hospitals HSS Trust
David Moorehead	Royal Group of Hospitals HSS Trust
Billy Gilmore	School of Biomedical Sciences, UU Coleraine
Colin Hamilton	WHSSB
Yvonne Barnett	School of Biomedical Sciences, UU Coleraine
Fiona Jennings	NI Blood Transfusion Service
Gerry Clarke	MSF Representative, Belfast Links Labs
Ivan Ritchie	Royal Group of Hospitals HSS Trust
Jackie Jamison	United Hospitals HSS Trust
John McLuckie	Belfast Links Labs
Martyn Simpson	Royal Group of Hospitals HSS Trust
Sean Conlin	Belfast Links Labs
Tom Morton	Greenpark HSS Trust
Winston Pinkerton	Belfast Link Labs

MTO

Barbara Martin	Royal Group of Hospitals HSS Trust
Brian Buick	Belfast City Hospital HSS Trust
Carol Montgomery	Royal Group of Hospitals HSS Trust
Catherine O'Neill	School of Applied Medical Sciences and Sports Studies, University of Ulster, Jordanstown
Colin Hamilton	WHSSB
Geraldine McParland	Belfast City Hospital HSS Trust
Ian Logan	School of Applied Medical Sciences and sports studies, University of Ulster, Jordanstown
Ivan Ritchie	Belfast Links Labs
Peter H S Smith	NI Regional Medical Physics Agency
Raymond Flanagan	Royal Group of Hospitals HSS Trust
Stephen Kennedy	Belfast City Hospital HSS Trust
Vera Hodgkinson	Royal Group of Hospitals HSS Trust

Clinical Scientist

Alistair Crockard	Royal Group of Hospitals HSS Trust
Billy Gilmore	School of Biomedical Sciences, University of Ulster, Coleraine
Colin Hamilton	WHSSB
Ellie Duly	Ulster Community and Hospitals HSS Trust
Ivan Ritchie	Royal Group of Hospitals HSS Trust
Paul Boreland	United Hospitals HSS Trust
Peter H S Smith	NI Regional Medical Physics Agency

Department of Health, Social Services and Public Safety

David Bingham (Chair)	Director of Human Resources
Joyce Cairns	Deputy Director of Human Resources
Jennifer Thompson	Workforce Planning

APPENDIX B
KEY INFORMANT INTERVIEWS

KEY INFORMANT INTERVIEWS

MLSO/MLA/Cytoscreeners	
Morris O'Kane	Lab Director/ WHSSB, Altnagelvin
Gerry Clark	MSF, Belfast Link Labs (BLL)
Brian Magee	Lab Services Mgr, Craigavon Area Hospital
John Corry	Lab Services Mgr, Sperrin Lakeland
Jack Barr	Director of Lab Services, Belfast Link Labs
Ivan Ritchie	Personnel Manager, Belfast Link Labs
James Carson	Consultant Histopathologist, Antrim Hospital
Chris Funston	MLSO, Antrim Hospital
Jackie Jamison	MLSO, Antrim Hospital
Tom Morton	MLSO, Antrim Hospital
Yvonne Barnett	School of Biomedical Sciences, UU, Coleraine
Billy Gilmore	School of Biomedical Sciences, UU, Coleraine
Fiona Jennings	Corp. Services Mgr, Blood Transfusion Agency
John Savage	Lab Services Mgr, Blood Transfusion Agency
Helen Allen	CPSM Chairwoman, MLSO, Altnagelvin
Martyn Simpson,	BMS Manager Microbiology Service, BLL
Sean Conlin,	MLSO, RVH
Thomas McLaughlin	Biomedical Services Manager, BLL
Laurence Nolan	Deputy BMS Manager Haematology Service, BLL
John McClintock	MLSO, Ulster Hospital

MTO	
Barbara Martin	MSF Rep. MTO Resp Med, RVH
Geraldine McParland	MTO Cardiology BCH
John Meeklan	MTO, Cardiac Theatres Intensive Care, RVH
Ian Logan	Applied Medical Sciences & Sports Studies, UUJ
Catherine O'Neill	Applied Medical Sciences & Sports Studies, UUJ
Peter Smith	Chief Executive, Regional Medical Physics Agency
Vera Hodgkinson	MTO, Cardiology RGH
Stephen Kennedy	Unison Rep BCH

Clinical Scientists	
Elizabeth Trimble	Chair/Lab Medicine, Clinical Inst; Dept of Clinical Biochemistry
Terry Lapin	Prof of Haematology, Queens University
Paul Boreland	C.S. Ulster Hospital and Antrim Hospital
Alaistair Crockard	C.S. Belfast Link Labs
Ellie Duly	C.S. Belfast Link Labs
Peter Smith	Regional Medical Physics Agency

APPENDIX C
FOCUS GROUPS

FOCUS GROUPS

Workforce Category	Key Contact	Location Held
MLSO / MLA / Cytoscreeners	Gerry Clarke	BLL
MLSO / MLA	Brian Magee	Craigavon
MLSO / MLA	Chris Funston	Antrim
MLSO students	Billy Gilmore	UU, Coleraine
MTO's	Geraldine McParland	BCH
Clinical Scientists	Alistair Crockard	RVH

APPENDIX D
WORKFORCE COMPOSITION TABLES

CONTENTS

CONTENTS

1. COMPOSITION OF TECHNICAL AND SCIENTIFIC WORKFORCE

PLEASE NOTE:

The following data is that provided from the HRMS system for staff on the payroll as at 30 September 2001. It has been presented as received in order to ensure a consistent audit trail is available to the Department for future reference.

It is known that there are a number of discrepancies within the way in which the trusts and other organisations have categorised their staff, particularly with regards to the terminology used to describe specialties and sub-specialties.

Without carrying out a complete review of the data with each organisation it is not possible to provide a clean database within the terms of the review. Whilst information has been received about certain numbers in certain specialties, we have not adjusted any of this data. This is principally because we do not have sufficient information to adjust data without impacting on the overall totals used in the data modelling.

For example, if the numbers quoted against a specialty are too high, we do not know whether the individuals have been incorrectly classified to the specialty, to the grade, to the organisation or whether they should be on the payroll at all. We cannot therefore be sure that any adjustments are improving the overall quality of the data used.

It should also be noted that for the purposes of the data modelling (and therefore the main basis of the report), it is overall totals which have been used and the detailed analysis between specialties and organisations does not have an impact. Whilst discrepancies in the overall totals may exist, it is considered that they are immaterial enough as to not be significant when looking at overall trends within the data models.

Table 1.1
Technical and Scientific Workforce (2001)

Workforce Group	Number in Workforce
MLSO	545
Trainee MLSO	55
MLA	118
Cytoscreeners	7
MTO	306
Trainee MTO	12
ATO	51
Clinical Scientist	93

Source: HRMS

2. MLSOS

2.1 MLSOs by Department

Table 2.1
MLSOs By Department

Department	1998	1999	2000	2001	Change 1998-2001
Haematology	107	115	119	120	+12%
Microbiology	71	74	73	76	+7%
Biochemistry	71	70	70	69	-3%
Bacteriology	59	57	61	69	+17%
Clinical Chemistry	51	53	56	56	+10%
Blood Transfusion Service	30	33	33	33	+10%
Cytopathology	28	26	26	26	-7%
Histopathology	22	24	23	24	+9%
General	26	27	21	20	-23%
Pathology	19	19	22	20	+5%
Cytology	7	8	8	8	+14%
Histo/Cytopathology	4	4	6	7	+75%
Tissue Typing	4	4	6	7	+75%
Immunology	4	6	5	5	+25%
Chemical Pathology	2	2	2	2	0%
Medical genetics	2	2	2	2	0%
Cardiology	0	0	1	1	+100%
Total	**507**	**524**	**534**	**545**	**+7%**

Source: HRMS

2.2 MLSOs by Trust by Department

Table 2.2
Trust by Department

Trust	Department	Group Total Count
Belfast City Hospital Trust	Haematology	27
	Histopathology	8
	Bacteriology	27
	Cytopathology	11
	Medical Genetics	2
	Clinical Chemistry	27
	Tissue Typing	7
	Group Total	**109**
Green Park Trust	Haematology	4
	Microbiology	1
	General	5
	Cardiology	1
	Biochemistry	2
	Group Total	**13**
Ulster Hospitals & Community Trusts	Haematology	6
	General	1
	Biochemistry	10
	Bacteriology	19
	Group Total	**36**
RG Hospital Group Trust	Haematology	23
	Microbiology	13
	Immunology	4
	General	6
	Pathology	20
	Biochemistry	26
	Bacteriology	22
	Cytopathology	2
	Group Total	**116**
Mater Infirmorum Hospital Trust	Haematology	1
	Immunology	1
	General	8
	Bacteriology	1
	Clinical Chemistry	1
	Group Total	**12**

Blood Transfusion Service	Blood Transfusion Service	33
	Group Total	**33**
Causeway	Haematology	6
	Microbiology	8
	Clinical Chemistry	7
	Group Total	**21**
United Hospital Group	Haematology	21
	Histopathology	7
	Microbiology	22
	Cytopathology	9
	Clinical Chemistry	21
	Group Total	**80**
Craigavon/Banbridge Hospital	Haematology	11
	Histopathology	3
	Microbiology	14
	Biochemistry	12
	Cytopathology	4
	Histo/Cytopathology	7
	Group Total	**51**
Altnagelvin HSS Trust	Haematology	10
	Histopathology	6
	Microbiology	12
	Biochemistry	12
	Cytology	8
	Group Total	**48**
Sperrin/Lakeland HSS Trust	Chemical Pathology	2
	Haematology	11
	Microbiology	6
	Biochemistry	7
	Group Total	**26**

2.3 MLSOs by Grade and Gender

Table 2.3
MLSOs By Grade and Gender

Grade	1998	1999	2000	2001	% Change	2001 Male	2001 Female
MLSO 1	102	121	126	143	+28%	26%	74%
MLSO 1+	15	15	13	13	-15%	61%	39%
MLSO 1++	49	44	37	26	-88%	39%	61%
MLSO 1+++	10	10	13	12	+17%	33%	67%
Sub-total	***176***	***190***	***189***	***194***	***+9%***	***40%***	***60%***
MLSO 2	118	117	109	117	-1%	43%	57%
MLSO 2+	29	30	36	38	+24%	53%	47%
MLSO 2++	57	65	60	55	-4%	47%	53%
MLSO 2 +++	16	13	24	22	+27%	64%	36%
Sub-total	***220***	***225***	***229***	***232***	***+5%***	***52%***	***48%***
MLSO 3	40	37	43	46	+13%	72%	28%
MLSO 3+	2	2	3	2	0%	100%	0%
MLSO 3++	29	31	32	31	+6%	77%	23%
MLSO 3+++	9	9	7	7	-29%	86%	14%
Sub-total	***80***	***79***	***85***	***86***	***+7%***	***84%***	***16%***
MLSO 4	18	17	18	20	+10%	90%	10%
MLSO 4++	9	9	8	8	-13%	75%	25%
MLSO 4 +++	4	4	5	5	+20%	100%	0%
Sub-total	***31***	***30***	***31***	***33***	***+6%***	***88%***	***12%***
Group Total	**507**	**524**	**534**	**545**	**+7%**	**48%**	**52%**

Source: HRMS

2.4 MLSOs by Trust

Table 2.4
MLSOs By Trust 1998-2001

Trust	1998	1999	2000	2001	% Change 1998-2001
Royal Group Hospitals Trust	114	116	119	116	+2%
Belfast City Hospital Trust	90	88	99	109	+21%
United Hospitals Group	74	81	80	80	+8%
Craigavon/Banbridge Hospital	57	56	53	51	-11%
Altnagelvin HSS Trust	44	45	46	48	+9%
Ulster Hospitals & Comm Trusts	32	32	37	36	+13%
Blood Transfusion Service	30	33	33	33	+10%
Sperrin/Lakeland HSS Trust	22	23	22	26	+18%
Causeway	19	21	21	21	+11%
Green Park Trust	14	18	11	13	-7%
Mater Infirmorium Hospital Trust	11	11	13	12	+9%
Total	**507**	**524**	**534**	**545**	**+7%**

Source: HRMS

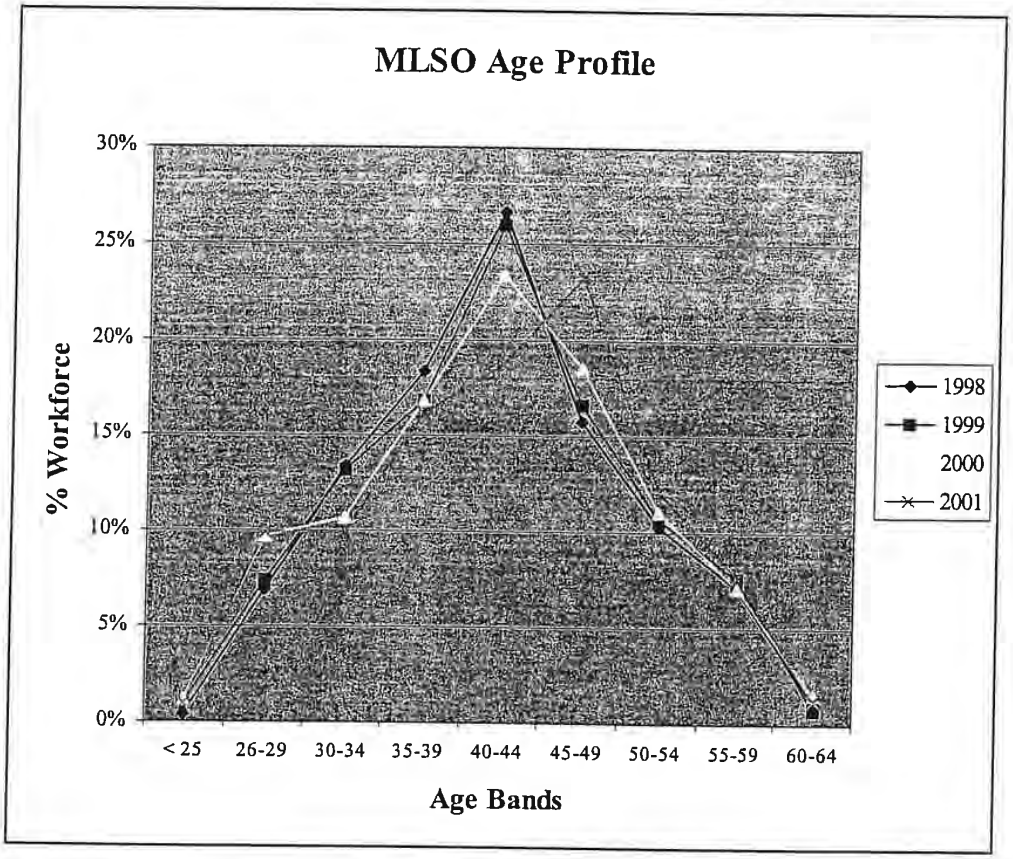
2.5 MLSOs by Age

Table 2.5
MLSOs By Age (2001)

Age Bands	Number	Per cent
< 25	5	1%
26 – 29	54	10%
30 – 34	54	10%
35 – 39	88	16%
40 – 44	102	19%
45 – 49	127	23%
50 – 54	66	12%
55 – 59	42	8%
60 – 64	7	1%
Total	**545**	**100%**

Source: HRMS

Figure 2.1
MLSO Age Profile



Source: HRMS

2.6 MLSOs by Gender

Table 2.6
MLSO Gender Profile

Year	Female	% Female	Male	% Male	Total
1998	239	47%	268	53%	507
1999	258	49%	266	51%	524
2000	272	51%	262	49%	534
2001	282	52%	263	48%	545

Source: HRMS

2.7 Part-Time Working Among MLSOs

Table 2.7
Part-Time Working 1998-2001

	1998	1999	2000	2001
Number Working Part-Time	64	74	71	78
% Total Workforce	13%	14%	13%	14%
% Part-time Workers who are women	95%	92%	90%	91%
% Women in Workforce Working Part-time	26%	26%	24%	25%

Source: HRMS

2.8 Trainee MLSOs

Table 2.8
Trainee MLSOs

	1998	1999	2000	2001	% Change 1998-2001	2001 Female	2001 Male
Trainee MLSO	31	51	48	55	+77%	73%	27%

Source: HRMS

3. MLAS

3.1 MLAs by Department

Table 3.1
MLAs by Department

	1998	1999	2000	2001	% Change
Haematology	16	12	19	23	+44%
Histopathology	4	5	4	6	+50%
Microbiology	13	16	12	13	0%
Immunology	1	0	1	1	0%
General	7	9	7	7	0%
Pathology	4	4	3	4	0%
Cardiology	0	1	1	0	0%
Biochemistry	9	12	12	11	+22%
Blood Transfusion Service	8	12	15	13	+63%
Cytology	1	1	1	1	0%
Bacteriology	19	18	18	21	+11%
Cytopathology	0	0	0	1	+100%
Medicalgenetics	4	5	4	4	0%
Histo/Cytopathology	2	2	2	1	-50%
Clinical Chemistry	10	12	10	9	-10%
Tissue Typing	1	2	2	2	+100%
Respiratory Investigation	0	0	0	1	+100%
Group Total	**99**	**111**	**111**	**118**	**+19%**

Source: HRMS

3.2 MLAs by Trust and Department

Table3.2
Department by Trust

Trust	Department	Group Total Count
Belfast City Hospital Trust	Haematology	0
	Histopathology	1
	Bacteriology	12
	Cytopathology	1
	Medicalgenetics	4
	Clinical Chemistry	5
	Tissue Typing	2
	Respiratory Investigation	1
	Group Total	**26**
Green Park Trust	General	2
	Group Total	**2**
Ulster Hospitals & Community Trusts	Biochemistry	2
	Bacteriology	5
	Group Total	**7**
RG Hospital Group Trust	Haematology	3
	Microbiology	0
	Immunology	1
	General	1
	Pathology	4
	Biochemistry	5
	Bacteriology	4
	Physiotherapy	0
	Group Total	**18**
Mater Infirmorum Hospital Trust	Haematology	6
	General	1
	Group Total	**7**
Blood Transfusion Service	Blood Transfusion Service	13
	Group Total	**13**
Causeway	Microbiology	2
	Group Total	**2**

United Hospital Group	Haematology	1
	Histopathology	0
	Microbiology	5
	Clinical Chemistry	3
	Group Total	**9**
Craigavon / Banbridge Hospital	Haematology	5
	Histopathology	1
	Microbiology	5
	General	3
	Biochemistry	4
	Histo/Cytopathology	1
	Group Total	**19**
Altnagelvin HSS Trust	Haematology	3
	Histopathology	4
	Microbiology	1
	Biochemistry	0
	Cytology	1
	Clinical Chemistry	1
	Group Total	**10**
Sperrin/Lakeland HSS Trust	HAEMATOLOGY	5
	Group Total	**5**

3.3 MLAs by Grade

Table3.3
MLAs by Grade and Gender

	1998	1999	2000	2001	% Change	2001 Male	2001 Female
Medical Lab Asst	95	100	105	109	+15%	38%	62%
Med Lab Asst ++	2	6	3	6	+200%	50%	50%
Medical Lab Asst +++	2	5	3	3	+50%	33%	67%
Group Total	**99**	**111**	**111**	**118**	**+19%**	**38%**	**62%**

Source: HRMS

3.4 MLAs by Trust

Table 3.4
MLAs by Trust

	1998	1999	2000	2001	% Change
Belfast City Hosp Trust	24	24	21	26	+8%
Green Park Trust	3	1	2	2	-33%
Ulster Hospitals & Comm Trusts	4	6	5	7	+75%
RG Hosp Group Trust	22	20	20	18	-18%
Mater Infirmorum Hospital Trust	4	6	3	7	+75%
Blood Transfusion Service	8	12	15	13	+63%
Causeway	3	2	2	2	-33%
United Hosp Group	9	11	10	9	0%
Armagh and Dungannon	1	1	1	0	-100%
C-avon/B-bridge Hosp	10	17	18	19	+90%
Altnagelvin HSS Trust (Hospital)	11	11	10	10	-9%
Sperrin/Lakeland HSS Trust	0	0	4	5	+500%
Group Total	**99**	**111**	**111**	**118**	**+19%**

Source: HRMS

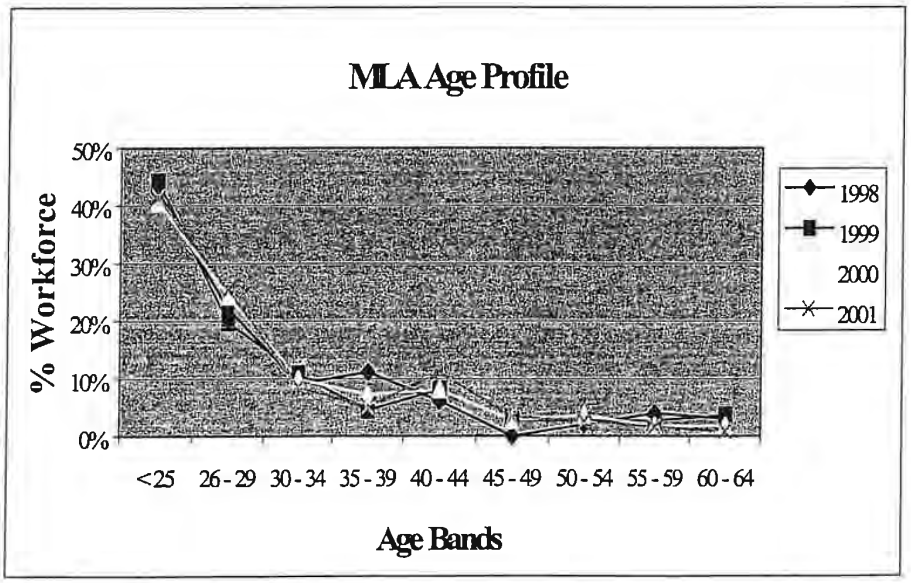
3.5 MLAs by Age

Table 3.5
MLAs By Age (2001)

Age Bands	Number	Per cent
< 25	49	42%
26 – 29	30	25%
30 – 34	10	8%
35 – 39	6	5%
40 - 44	13	11%
45 - 49	4	3%
50 - 54	3	3%
55 - 59	2	2%
60 - 64	1	1%
Total	**118**	**100%**

Source: HRMS

Figure 3.1
MLA Age Profile



Source: HRMS

3.6 MLAs by Gender

Table 3.6
MLAs By Gender (2001)

	Female	% Female	Male	% Male	Total
1998	65	66%	34	34%	99
1999	69	62%	42	38%	111
2000	68	61%	43	39%	111
2001	73	62%	45	38%	118

Source: HRMS

3.7 Part- time Working Among MLAs

Table 3.7
Part-time Working in MLAs

	1998	1999	2000	2001
Working Part-time	11	14	10	11
% Total Workforce	11%	13%	9%	9%
% Part-time Workers who are women	73%	86%	80%	82%
% Women in Work force working Part-time	12%	17%	12%	12%

Source: HRMS

4. MTOS

4.1 MTOs by Department

Table 4.1
MTOs by Department

	1998	1999	2000	2001	% Change 1998-2001
Cardiology	78	77	80	88	+13%
Audiology	50	50	46	52	+4%
Medical Physics	37	36	41	42	+14%
General	29	28	25	26	-10%
Pathology	13	13	13	18	+38%
Theatre	20	19	17	18	-10%
Cardiology/Echocard	12	12	11	12	0%
EEG	10	9	11	11	+10%
Prosthetics/Orthotics	8	10	8	10	+25%
Post-Mortem Room	10	8	8	8	-20%
Renal	7	8	8	8	+14%
Respiratory Investigation	2	3	3	4	+100%
Medical Genetics	0	0	1	3	+300%
Biochemistry	0	0	0	2	+200%
Physiotherapy	0	2	2	2	+200%
Haematology	0	0	1	1	+100%
Orthodontics	1	1	0	0	-100%
Total	**277**	**277**	**276**	**306**	**+10%**

Source: HRMS

Note: RMPA staffing data was not fully included in HRMS until 1999. 1998 data supplied by RMPA

4.2 MTOs by Trust and Department

Table 4.2
Department by Trust

Trust	Department	Group Total Count
Belfast City Hosp Trust	Audiology	6
	Cardiology	14
	Renal	4
	EEG	3
	Medical Genetics	3
	Theatre	3
	Respiratory Investigation	4
	Group Total	**37**
Green Park Trust	Medical physics	1
	Cardiology	2
	Prosthetics / Orthotics	8
	Group Total	**11**
Regional Med Physics Agency	Medical physics	37
	Group Total	**37**
Ulster Hospitals & Community Trusts	Post-Mortem Room	2
	Audiology	4
	Cardiology	8
	Theatre	9
	Group Total	**23**
RG Hospital Group Trust	General	24
	Pathology	4
	Audiology	12
	Cardiology	42
	Eeg	5
	Physiotherapy	2
	Group Total	**89**
Mater Infirmorum Hospital Trust	Medicalphysics	2
	Audiology	2
	Cardiology	1
	Blood Transfusion Service	1
	Cardiology/Echocard	1
	Group Total	**7**

N & W Belfast Community Trust	Prosthetics/Orthotics	2
	Group Total	**2**
Down & Lisburn Trust	Audiology	2
	Theatre	1
	Group Total	**3**
Provider Support	General	1
	Group Total	**1**
Causeway	Post-Mortem Room	1
	Cardiology	3
	Theatre	3
	Group Total	**7**
United Hosp Group	Pathology	1
	Post-Mortem Room	2
	Audiology	8
	Theatre	1
	Cardiology/Echocard	11
	Group Total	**23**
Armagh and Dungannon	Audiology	1
	Group Total	**1**
C-avon / B-bridge Hosp	Medicalphysics	2
	Pathology	1
	Post-Mortem Room	3
	Audiology	4
	Cardiology	8
	Eeg	3
	Theatre	1
	Group Total	**22**
Newry & Mourne	Audiology	5
	Renal	1
	Group Total	**6**
Westcare Business Services	General	1
	Group Total	**1**
Altnagelvin HSS Trust	Pathology	12
	Audiology	4
	Cardiology	5
	Biochemistry	2
	Group Total	**23**

Sperrin/Lakeland HSS Trust	Haematology	1
	Audiology	4
	Cardiology	5
	Renal	3
	Group Total	**13**

Source: HRMS

4.3 MTOs by Grade

Table 4.3
MTOs by Grade and Gender

	1998	1999	2000	2001	% change 1998-2001	2001 Female	2001 Male
MTO1	28	20	22	32	+19%	75%	25%
MTO1+	1	1	0	0	-100%	0%	0%
MTO1+++	0	1	1	0	0%	0%	0%
Sub-total MTO1	***29***	***22***	***23***	***32***	***+10%***	***75%***	***25%***
MTO2	59	53	49	53	-10%	59%	41%
MTO2	3	6	6	3	0%	67%	33%
MTO2++	2	2	2	1	-50%	0%	100%
MTO2+++	2	4	2	4	+100%	0%	100%
Sub-total MTO2	***66***	***65***	***59***	***61***	***-8%%***	***31%***	***69%***
MTO3	98	98	99	110	+12%	57%	43%
MTO3+	3	4	5	4	+33%	25%	75%
MTO3++	3	6	7	7	+133%	57%	43%
MTO3+++	3	2	1	0	-100%	0%	0%
Sub-total MTO3	***107***	***110***	***112***	***121***	***+13%***	***47%***	***53%***
MTO4	47	49	51	56	+19%	59%	41%
MTO4+	2	1	1	2	0%	100%	0%
MTO4++	4	4	4	4	0%	25%	75%
MTO4+++	4	6	5	4	0%	50%	50%
Sub-total MTO4	***57***	***60***	***61***	***66***	***+16%***	***59%***	***41%***
MTO5	16	17	17	22	+38%	59%	41%
MTO5++	1	1	1	1	0%	0%	100%
MTO5+++	1	2	3	3	+200%	67%	33%
Sub-total MTO5	***18***	***20***	***21***	***26***	***+44%***	***42%***	***58%***
Total	**277**	**277**	**276**	**306**	**+10%**	**58%**	**42%**

Source: HRMS

Note: RMPA staffing data was not fully included in HRMS until 1999. 1998 data supplied by RMPA

4.4 MTOs by Trust

Table 4.4
MTOs by Trust

	1998	1999	2000	2001	% Change 1998-2001
Royal Group Hospitals Trust	81	78	82	89	+10%
Belfast City Hosp Trust	30	31	29	37	+23%
Regional Med Physics Agency	35	34	38	37	+6%
Ulster Hospitals & Community Trusts	26	22	23	23	-12%
United Hosp Group	26	24	22	23	-12%
Altnagelvin HSS Trust (Hospital)	18	18	16	23	+28%
C-avon/B-bridge Hosp	16	18	19	22	+38%
Sperrin/Lakeland HSS Trust	10	11	11	13	+30%
Green Park Trust	11	13	9	11	0%
Mater Infirmorum Hospital Trust	4	6	6	7	+75%
Causeway	6	7	6	7	+17%
Newry & Mourne	5	5	5	6	+20%
Down & Lisburn Trust	1	2	2	3	+200%
N & W Belfast Community Trust	1	1	1	2	+100%
Provider Support	1	1	1	1	0%
Armagh and Dungannon	5	5	5	1	-80%
Westcare Business Services	1	1	1	1	0%
Total	**277**	**277**	**276**	**306**	**+10%**

Source: HRMS

Note: RMPA staffing data was not fully included in HRMS until 1999. 1998 data supplied by RMPA

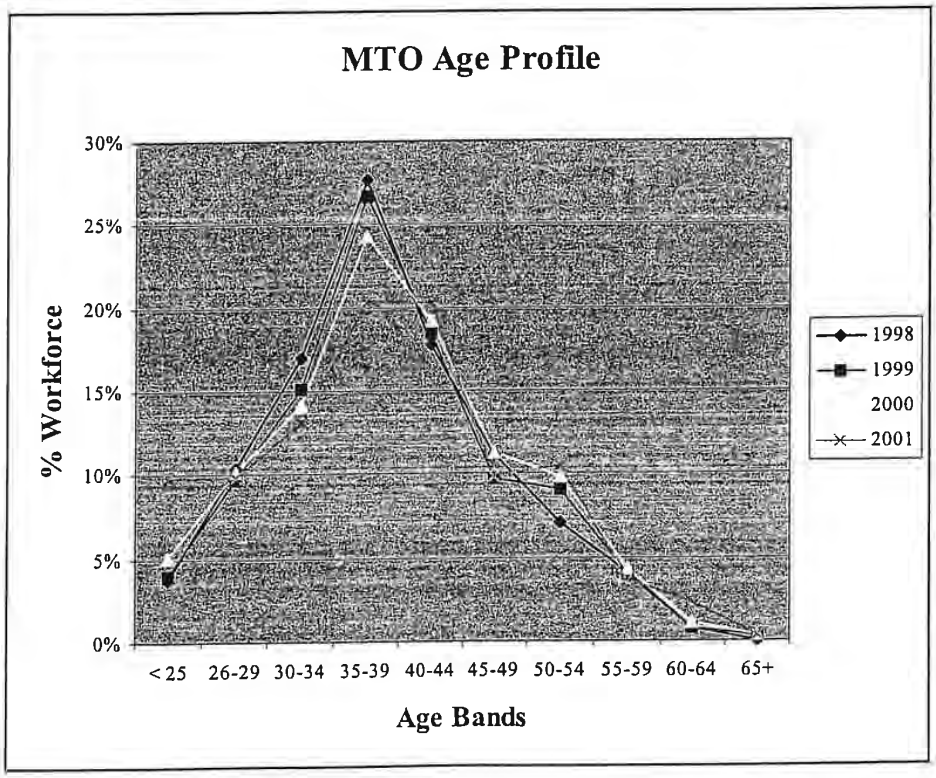
4.5 MTOs by Age

Table 4.5
MTOs by Age (2001)

Age Bands	Number	Per cent
< 25	30	10%
26 - 29	30	10%
30 - 34	40	13%
35 - 39	62	20%
40 - 44	62	20%
45 - 49	30	10%
50 - 54	32	10%
55 - 59	11	4%
60 - 64	7	2%
65+	1	0%
Unknown	1	0%
Total	**306**	**100%**

Source: HRMS

Figure 4.1
MTO Age Profile 1998-2001



Source: HRMS

4.6 MTOs by Gender

Figure 4.6
MTOs by Gender

Year	Female	% Female	Male	% Male	Total
1998	161	58%	116	42%	277
1999	157	57%	120	43%	277
2000	158	57%	118	43%	276
2001	177	58%	129	42%	306

Source: HRMS

4.7 Part-Time Working Among MTOs

Figure 4.7
Part-time Working Among MTOs

	1998	1999	2000	2001
Number working part-time	48	50	48	53
% Total workforce	20%	18%	17%	17%
% Part-time workers female	92%	98%	98%	98%
% Women in workforce working part-time	30%	31%	30%	29%

Source: HRMS (1998 data excludes RMPA)

4.8 Trainee MTOs

The number of Trainee MTOs has increased slightly between 1998-2001 from 9 to 12. The largest proportion of these trainee staff are in Cardiology (5 in 2001), either at the Belfast City Hospital Trust or the Royal Group of Hospitals Trust. Departmental data indicates that other areas employing Trainee MTOs in 2001 were Medical Physics (1), Audiology (2), Cytopathology (1), Respiratory Investigation (1), EEG (1) and General (1).

4.9 ATOs

Figure 4.9
ATOs by Specialty

	2001
Cardiology	22
Renal	7
Cardiology/Echocard	6
General	5
Audiology	5
Theatre	2
Haematology	2
Orthodontics	1
Medicalphysics	1
Total	**51**

Source: HRMS

5. CLINICAL SCIENTISTS

5.1 Clinical Scientists by Department

Table 5.1
Clinical Scientists by Department

	1998	1999	2000	2001	% Change 1998-2001
Medical Physics	21	20	22	28	+33%
Medical Genetics	16	16	16	15	-6%
Biochemistry	9	9	8	10	+11%
Haematology	5	5	5	6	+20%
General	7	8	7	6	-14%
Bacteriology	7	7	7	6	-14%
Tissue Typing	6	5	5	5	-17%
Microbiology	4	4	4	4	0%
Pathology	2	2	4	4	+100%
Clinical Chemistry	4	4	4	4	0%
Blood Transfusion Service	2	2	2	2	0%
Immunology	1	1	1	1	0%
Audiology	1	1	2	1	0%
Respiratory Investigation	1	1	1	1	0%
Mental Health	1	1	0	0	-100%
Total	**87**	**86**	**88**	**93**	**+7%**

Source: HRMS

Note: RMPA staffing data was not fully included in HRMS until 1999. 1998 data supplied by RMPA

5.2 Clinical Scientists by Trust and Department

Table 5.2
Trust by Department

Trust	Department	Group Total Count
Belfast City Hospital Trust	Haematology	5
	Bacteriology	4
	Medical Genetics	15
	Clinical Chemistry	3
	Tissue Typing	5
	Respiratory Investigation	1
	Group Total	**33**
Regional Med Physics Agency	Medical Physics	28
	Group Total	**28**
Ulster Hospitals & Community Trusts	Biochemistry	1
	Group Total	**1**
RG Hospital Group Trust	Haematology	1
	Microbiology	4
	Immunology	1
	General	6
	Pathology	4
	Audiology	1
	Biochemistry	8
	Bacteriology	2
	Group Total	**27**
Blood Transfusion Service	Blood Transfusion Service	2
	Group Total	**2**
United Hospital Group	Clinical Chemistry	1
	Group Total	**1**
Altnagelvin HSS Trust	Biochemistry	1
	Group Total	**1**

5.3 Clinical Scientists by Grade

Table 5.3
Clinical Scientists by Grade and Gender

	1998	1999	2000	2001	% Change 1998-2001	2001 Female	2001 Male
Clinical Scientist A	13	13	11	8	-38%	63%	37%
Clinical Scientist B	56	56	59	67	+20%	42%	58%
Clinical Scientist C	17	16	17	16	-6%%	25%	75%
Clinical Scientist C ++	0	0	0	1	+100%	0%	100%
Clinical Scientist C+++++	1	1	1	1	0%	0%	100%
Total	**87**	**86**	**88**	**93**	**+7%**	**40%**	**60%**

Source: HRMS

5.4 Clinical Scientists by Trust

Table 5.4
Clinical Scientists by Trust

	1998	1999	2000	2001	% Change 1998-2001
Belfast City Hosp Trust	35	36	35	33	-6%
Regional Med Physics Agency	21	20	22	28	+33%
RG Hosp Group Trust	26	25	26	27	+4%
Blood Transfusion Service	2	2	2	2	0%
United Hosp Group	0	0	0	1	+100%
Ulster Hospitals & Community Trusts	1	1	1	1	0%
Altnagelvin HSS Trust (Hospital)	0	0	1	1	+100%
Mater Infirmorum Hospital Trust	1	1	0	0	-100%
Green Park Trust	1	1	1	0	-100%
Group Total	**87**	**86**	**88**	**93**	**+7%%**

Source: HRMS

Note: RMPA staffing data was not fully included in HRMS until 1999. 1998 data supplied by RMPA

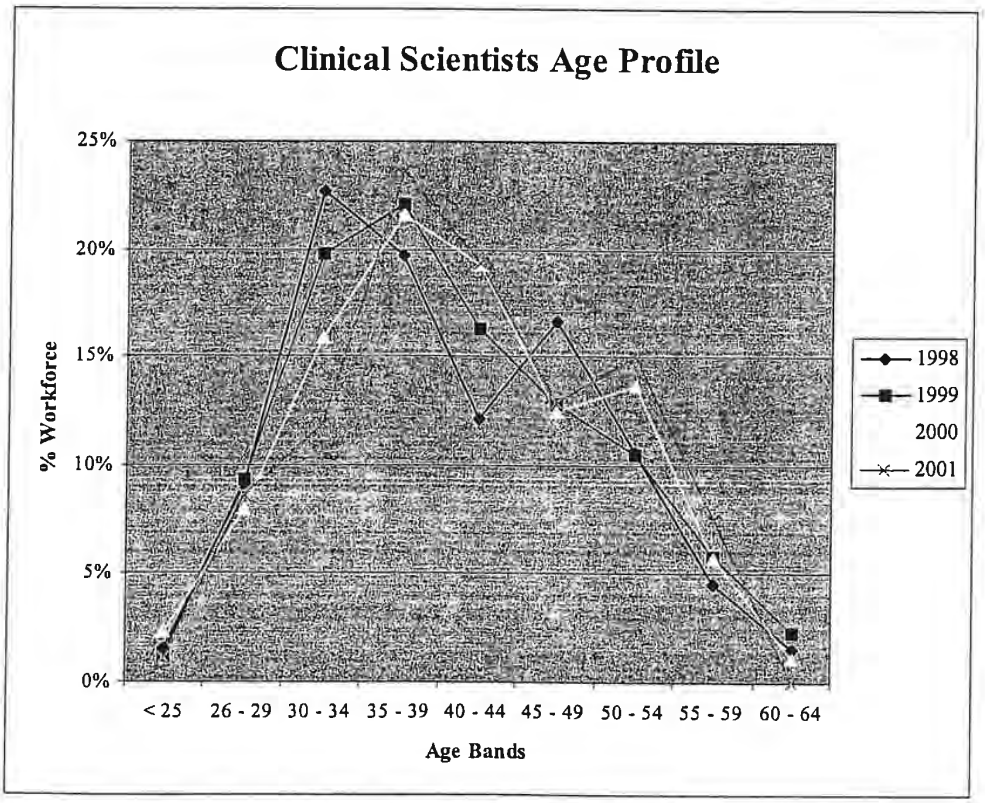
5.5 Clinical Scientists by Age

Table 5.5
Clinical Scientists by Age (2001)

Age Bands	Number	Per cent
< 25	1	1%
26 - 29	8	9%
30 - 34	11	12%
35 - 39	22	24%
40 - 44	18	19%
45 - 49	12	13%
50 - 54	14	15%
55 - 59	7	8%
60 - 64	0	0%
Total	**93**	**100%**

Source: HRMS

Figure 5.1
Clinical Scientists Age Profile 1998-2001



Source: HRMS

5.6 Clinical Scientists by Gender

Table 5.6
Clinical Scientists by Gender

Year	Female	% Female	Male	% Male	Total
1998	34	39%	53	61%	87
1999	33	38%	53	62%	86
2000	31	35%	57	65%	88
2001	37	40%	56	60%	93

Source: HRMS

5.7 Part-Time Working Among Clinical Scientists

Table 5.7
Part-time Working Among Clinical Scientists

	1998	1999	2000	2001
Number working part-time	6	6	8	9
% Total workforce	9%	7%	9%	10%
% Part-time workers who are women	83%	100%	100%	100%
% Women in workforce working part-time	17%	18%	26%	24%

Source: HRMS (1998 figures exclude RMPA)

Department of Health, Social Services and Public Safety

An Roinn Sláinte, Seirbhísí Sóisialta agus Sábháilteachta Poiblí

Review of the Social Services Workforce

Final Report

November 2002

1. INTRODUCTION

1.1 Background

Social Services should deliver social care to clients in a way that is sensitive to their needs and expectations, empowering, offers advice and support, and ensures seamless provision across care organisations. To deliver social services such as these requires a workforce which has the skills and flexibility to deliver the right care at the right time to those who need it – a workforce which has the right number of staff deployed in the right places and working to the maximum of their ability.

In order to address this issue the Department of Health, Social Services and Public Safety has commissioned a review of the current provision of social services staff across Northern Ireland. The aim of the review is to inform the Department's planning in the provision of training for these staff groups to facilitate service continuity and development over the next five to 10 years. This report is the result of that review.

There are an estimated 30,000 social services staff in Northern Ireland providing a wide range of personal and therapeutic support services. The group includes professionally qualified social workers, vocationally qualified care workers and unqualified staff working in domiciliary, daycare, residential and fieldwork settings. It is spread across the statutory, voluntary and private sectors and may focus on families, children, adults with learning difficulties, disabilities or mental health issues or the elderly.

This initial workforce planning review considers a number of developments and trends within the health and personal social services that are impacting on the roles and responsibilities of staff and which will have a bearing on planning the social services workforce required in the future. These include:

- The plans for state registration of the social services workforce under the new Northern Ireland Social Care Council;
- Changing arrangements for social work education and training;
- Changing employment patterns and policies relating to work-life balance;
- The impact of recent and forthcoming legislation such as the European Working Time Directive;
- Forthcoming service developments such as the provision of additional residential childcare places; and
- Increased competition from other sectors in recruiting and retaining social services staff.

1.2 Terms of Reference

Against this background the aim of the review was to investigate, within the context of workforce planning and deployment, current and future supply and demand factors that will impact on the delivery and development of social services.

The terms of reference for this review stipulated that the main outcome will be a report containing comprehensive qualitative information, setting out the following key elements:

- a prediction of the number of social services professionals that will be required over the next five to 10 years;
- a model that can be applied to predict trends in the supply and demand of social services professionals;
- the model should identify the parameters that will impact on the supply and demand of these professionals within the context of developments both within the professions and in the wider operating environment including economic context and society's requirements;
- identification of current and indicative future trends in the development of these services.

Within the scope of the above the detailed terms of reference include:

- an analysis of the current social services workforce in Northern Ireland, including:
  - size, composition, sectoral distribution, age and gender;
  - working conditions and patterns;
  - continuing development commitments;
  - specialist service commitments;
- an analysis of current and future recruitment and retention issues, including:
  - pay;
  - career development and specialisation;
  - career breaks/leaving the profession;
  - returners;
  - working arrangements;
- a prediction of future demand, including;
  - number of social services professionals required to meet service demands;
  - sectoral distribution including specialisation;
  - services demanding the skills of these professionals and the context within which these services are delivered.

The scope of the review for the social services was defined as:

- focusing on a province wide analysis and subsequent reporting content;
- taking into account professional issues including changing arrangements for professional Social Work training, developing access to NVQs, etc., developments in policy/legislation and in service provision along with the needs of society in relation to provision of service;
- utilisation of qualitative information gathered throughout the consultation process to formulate likely assumptions around future supply and demand trends from which scenario planning can be carried out;
- the review is not required to carry out any detailed feasibility analysis;
- the review is not required to carry out any detailed economic analysis;
- the review is required to build on currently available workforce data and not to carry out primary research;
- supply and demand projections will be produced for qualified Social Workers in the statutory sector based on HRMS data and output from consultation programme;
- data showing the composition of the 'unqualified' (i.e. not qualified Social Workers) section of the statutory social services workforce will be included in the report and indicative, high-level supply and demand assumptions will be developed for this group;
- where possible data will be presented according to standard categories – Domiciliary, Daycare, Residential and Fieldwork;
- private and voluntary sector provision will be considered within the exercise.

1.3 Review Methodology

1.3.1 Steering Group

The approach taken within this project has been similar to that taken in other workforce reviews recently commissioned by the Department. The project has been overseen by a Steering Group (see Appendix A) established by the Department and chaired by the Director of Human Resources, DHSSPS. The Steering Group approved the project approach and scope, made recommendations as to involvement from the sector and reviewed the initial findings and draft report prior to approval in its final form. This Steering Group also acted as a forum for discussion and debate around the assumptions to be used for the modelling to ensure they reflected the experiences of those in the service.

1.3.2 Work Format

The format for the work carried out was the same for each group and consisted of the following;

i. Key informant interviews with relevant personnel (see Appendix B for a complete list of personnel interviewed) and a series of focus groups (see Appendix C) with a range of social services practitioners. These were held to identify the key issues affecting recruitment and retention within the disciplines, to gather information to inform predictions of future demand and to identify useful sources of relevant literature and data;

ii. Review of relevant literature and work carried out to date; and

iii. Data modelling based on centrally available workforce data and key assumptions, derived from the above review work, for projecting factors affecting supply and demand.

1.4 Structure of this Report

This report sets out the findings of the review of the social services workforce as follows:

- Section 2 – An overview of the context within which the review is taking place, including key policy drivers;
- Section 3 – A breakdown of the current workforce, including current career structures and roles;
- Section 4 – Analysis of the current supply issues being faced with subgroup analysis where appropriate;
- Section 5 – Analysis of the current major demand issues affecting social services and impacting on staff workloads;
- Section 6 – Modelling of the current workforce data to provide a prediction of future need against the projected supply within the workforce;
- Section 7 – Conclusions and recommendations arising from the report.

2. CONTEXT

2.1 Overview

When considering workforce planning for the future a framework needs to be established which can be regularly and easily updated in line with evolving policies and strategies. Therefore, this report represents a starting point from which further work can be taken forward as policies are further developed and new arrangements established.

This section provides an overview of the key policy changes and developments impacting on the provision of social services in Northern Ireland over the next 5-10 year period.

2.2 Priorities for Action 2002/03

'Priorities for Action' sets out the Minister's expectations for the Health and Personal Social Services (HPSS) in the forthcoming year and the overall planning goals and key actions required to secure their achievement. Detailed priorities and actions are given for areas such as health development, primary care, workforce, winter planning and community care, acute hospital services, maternity and child health, the ambulance service, family and child care, care of older people, mental health and learning, physical and sensory disability as well as areas such as estate and IT. These priorities will guide the detailed planning and direction that the service in Northern Ireland will take in the short-term. (The priorities most relevant to this review are listed in Section 5.6)

The longer-term strategies to which these priorities relate are described in the following sections.

2.3 The Review of Acute Hospital Services

The Department commissioned an independent review of the provision of acute hospital services in 2000 and the results were published in June 2001. The Acute Hospitals Review Group report (led by Dr Maurice Hayes) set out proposals for changes to acute service provision which were subject to consultation and review. In June 2002, the Minister for Health, Social Services and Public Safety published 'Developing Better Services. Modernising Hospitals and Reforming Structures' which reflects the findings of the Acute Hospitals Review Group and the consultation process, and sets out proposed structures.

The new proposals highlight the significant changes there have been in healthcare needs, changing expectations about how those needs should be met and improvements in the diagnostic and therapeutic techniques available. The key pressures for change are:

- An ageing population requiring increased treatment and care;
- The availability of new medicines and new treatments;

- Advances in medical technology;
- New ways of working;
- More stringent training requirements; and
- Improving standards.

In response to these pressures, the Minister has set out a proposal for healthcare provision in Northern Ireland which aims to balance concentration of specialist acute services, the need for accessibility and the opportunities for decentralisation of services. The proposals are underpinned by closer integration of primary, community and secondary care.

Under the new proposals there would be:

- 9 Acute Hospitals;
- 7 Local Hospitals, 2 of which will be Enhanced Local Hospitals;
- 2 protected elective facilities;
- 9 consultant-led maternity units; and
- 2 pilot stand-alone midwife-led maternity units.

'Developing Better Services' recognises that the proposals will result in a significantly increased requirement for staff including, 30% more consultant medical staff, 20% more qualified nurses, 25% more therapeutic staff, 25% more GPs and investment in other staff required to support these increases. It is suggested that while these shortfalls will eventually be met through increased training places, there will be a time-lag while new professionals complete their training. Actions proposed to attract and retain already qualified staff in this period are:

- extending the return to practice initiative from nursing into other professions;
- increasing the proportion of graduates who choose to enter HPSS employment on completion of training rather than other employment sectors;
- developing unqualified staff roles and enhancing their skills by providing additional training;
- using qualified staff from other countries; and
- increasing retention through provision of enhanced professional development and flexible working practices.

These proposals are likely to have a considerable impact on the number of social services staff required to provide the community care underpinning new arrangements as well as continuing to provide social work services in hospitals. This impact has not yet been determined.

2.4 Building the Way Forward in Primary Care

The Programme for Government 2001-2004 made a commitment to replacing the GP Fundholding Scheme with structures which would be more equitable and which

would encourage greater co-operation between primary care providers and other statutory, community and voluntary organisations that can contribute to improving health and wellbeing.

'Building the Way Forward in Primary Care' (DHSSPS, 2000) set out proposals for the future of Primary Care beyond the cessation of GP Fundholding. The consultation paper emphasised the vital role of primary care services delivered through GP surgeries, pharmacies, dentists and opticians, and by a wide range of health and social services professionals working within community Health and Social Services Trusts. These professionals are generally the first and most frequent point of contact for the population.

Under the proposals set out in 'Building the Way Forward in Primary Care', all primary and community care will be co-ordinated through Local Health and Social Care Groups (LHSCGs), which are due to be established during 2002. It is hoped that the LHSCGs will form the bridge between hospital and community-based health and social care. LHSCGs will be organised around natural geographic boundaries serving populations of between 50,000 and 150,000. Every GP will be a member of a LHSCG and all patients registered with a GP will become the responsibility of the group to which their GP is aligned. LHSCGs will have Management Boards comprising local GPs, nurses, social workers, pharmacists, professions allied to medicine and community and service user representatives. Members' employment and contractual status would not be altered.

2.5 Review of Community Care

The Review of Community Care was initiated in October 2000 to identify barriers to high quality community care services, identify examples of good practice and make recommendations for improvements towards realising the vision of choice and independence for service users.

The First Report fed back the results of a consultation exercise with community care staff and service users. Staff consultation groups commented on the current and expected resource pressures faced by the community care sector which they attributed to:

- Lower turnover of service users due to greater life expectancy that previously anticipated and increased demand for community care services;
- A reduction in acute sector beds; and
- The impact of changes in pay and conditions such as the minimum wage, the Working Time Directive and increased public sector pay awards.
- Pending costs associated with the forthcoming regulation of the social services workforce would further increase resource pressures.

They also reported on the widespread difficulty in recruitment and retention of skilled staff, which was blamed on poor pay and conditions and growing competition from other sectors of the economy. Those from the independent sector predicted a reduction in the provision of residential and nursing home places as the business of providing these forms of care is perceived as less profitable. They reported that the relationship between the independent and statutory sectors had become strained as a

result of contract pricing arrangements and limited scope for participation of independent providers in service development.

The first phase also reviewed schemes implemented by individual organisations which provided evidence of good practice in preventing admission to hospital or institutional care, providing safer and faster discharge for those who do receive hospital care or improving the level of care provided to people in their own homes.

The second phase of the Review of Community Care will involve a range of projects exploring the issues raised in the First Report:

- Revisiting 'People First' with the aim of developing a revised strategic policy for community care;
- Exploring ways in which collaborative and multi-disciplinary working can be improved;
- The development of infrastructure and services that will support the transfer of traditionally hospital based services into the community care setting;
- A long-term strategy to prevent the use of beds by patients who have been declared medically fit for discharge;
- An improved focus on rehabilitation within community care;
- Service users and their carers will be involved in the above projects;
- Proposals for a carers strategy will be considered;
- The partnerships between statutory, voluntary and private sector providers will be reviewed and plans made to improve them;
- The review team will liaise with the Departmental working group on Workforce Planning to ensure all the issues raised are reflected in the Departmental Health and Social Services Workforce Plan; and
- All policies will take cognisance of the issues of equality, inclusion and anti-discrimination.

2.6 Best Practice - Best Care

The April 2001 consultation paper Best Practice - Best Care set out a range of options for ensuring the quality of HPSS services and focused on:

- **Setting Standards** around new procedures, drugs and technologies to improve services and for continuous professional development to improve professional practice;
- The introduction of **clinical and social care governance** to ensuring local accountability for delivery of services;
- Improving **monitoring and regulation** of health and social care services in both the statutory and independent sectors. The regulation of services would be extended to include:
  - statutory homes;

- homes covered by Charters and Acts of Parliament;
- small residential homes for adults;
- supported accommodation;
- nursing agencies;
- schools with boarding departments;
- the private and voluntary healthcare sector; and,
- agencies providing domiciliary care, fostering, adoption, services for under 12s and nursing home care.

A range of new structures and organisations for the implementation, monitoring and regulation of new quality arrangements is currently under consultation.

2.7 Agenda for Change

"Agenda for Change", is the UK plan to modernise the NHS pay system, to reward staff for what they do and for their skills and ability, rather than for the job title. The core aim of the modernisation programme is to link pay progression to development of skills and knowledge. The aim is to define career pathways, which will be assisted by the development of detailed job descriptions that reflect ability and achievement as well as local needs and circumstances and to allow for the development of staff into advanced roles without this necessarily requiring a move into management. In Northern Ireland the introduction of Agenda for Change for Social Services will be subject to negotiation with staff side organisations.

2.8 European Working Time Directive

The European Working Time Directive requires that staff should not be working more than 48 hours per week. It also sets out recommendations for compensatory rest after working anti-social hours, and determines what (with regards to on-call) constitutes "work" versus "duty". It is a current legal requirement for employers to implement the directive in all areas, and with all staff groups. Whilst it is recognised that this has not yet been achievable it is a necessary requirement for all HPSS organisations and their service providers to meet the Directive as soon as possible.

2.9 Northern Ireland Social Care Council

The Northern Ireland Social Care Council (NISCC) was established in October 2001 to take forward the work of the former Central Council for Education and Training in Social Work (NI) or CCETSW and the Training Organisation for the Personal Social Services (NI) or TOPSS. Similar Councils have been established in Scotland, Wales and England.

The NISCC functions are to:

- Set standards of practice for social care workers and their employers to promote a safe, reliable and competent service;

- Establish and maintain a register of social care workers. Those on the register will be viewed as safe and competent to practice;
- Promote education and training for all social care staff; and,
- Regulate social work training to ensure it prepares staff appropriately for the job.

Public consultation on the draft codes of practice developed for social care workers and employers of social care workers was recently completed by NISCC and following consideration of consultee views, the Council will submit the codes of practice to the Department for final approval.

All social care workers will have to be registered to practice and appropriate criteria in terms of qualifications and experience will be set for each staff group. Workers will have to re-register annually and provide evidence that they have maintained and developed their practice in the previous year. Employers will be required to support staff in meeting eligibility criteria for registration and its requirements for continuing professional development. NISCC will have the power to suspend or remove any social care worker deemed unfit to practice and therefore prevent them from being employed in a social care setting.

While the Social work professional qualification will be the requirement to register as a social worker, it is not yet clear what requirements will exist for other social care staff. Work is ongoing to match qualifications to functions and positions. In the early 1990's, the Department estimated that around 80% of social services staff did not have an appropriate qualification and set targets for the achievement of vocational qualifications. Progress has been made towards meeting these targets and statutory sector qualification profiles indicated that up to 40% of social care staff now have vocational qualifications in some Board areas. However, there is still a significant number of staff working in the sector without any appropriate qualification. Therefore, if registration required a qualification from the outset, many staff would be unable to register and continue to practice. Therefore, it is likely that a 'transitional' register will be opened for an introductory period, to enable unqualified staff to obtain a qualification and full registration.

Registration of social care workers will be implemented in phases, with the first phase being the registration of professionally qualified social workers, team leaders, residential childcare staff and heads of residential homes and day centres. This phase will begin in 2002/2003. The rollout timetable for remaining staff groups has not been confirmed.

2.10 New Arrangements for Social Work Training

Social work training arrangements are currently going through a change process and new arrangements are due to come into effect from the student intake in autumn 2004.

There are currently four routes through which professional social work training may be completed in Northern Ireland. These programmes will continue until the new qualification is introduced in 2004. The four routes to obtaining the Diploma in Social Work (DipSW) are as follows:

- **Post-graduate** Diploma in Social Work at Queens University Belfast or University of Ulster (Magee) – a 2-year full time course. Support is provided by the Department in form of a bursary which includes tuition and fees (paid direct to the University), a means tested maintenance grant and expenses associated with placements and childcare;

- **Undergraduate** training at University of Ulster (Magee) – a 4-year full time degree course. The qualification obtained is a BSc Hons Social Work including the Diploma in Social Work. Grant support and fees payment are means tested as with other undergraduate courses;

- **Non-graduate** training at University of Ulster (Jordanstown) – a 2-year full time course. The qualification obtained is a Diploma of Higher Education Social Work including the Diploma in Social Work. Grant support and fees payment are means tested as with other undergraduate courses;

- **Employment Route** – secondment from employer to part-time training over two and a half years. The Department supports the cost to the employer of secondment and the trainee maintains his/her salary for the duration of training.

In addition to the four standard training routes there are 2 pilot trainee social worker schemes running. The first of these was developed to inform the reform of social work student funding arrangements and to address the fall in recruitment to training through the traditional systems and thereby recruitment problems of the Trusts. The second pilot was developed to address the staff shortages associated with the development of children's services as a result of Children Matter. The first pilot started in 2000 and involved 30 trainees and the second began in 2001 and involves 36 trainees. The pilots involve both employment and college based training.

The major change as a result of the review of social work training will be the introduction of a minimum qualification threshold at honours degree level and a mandatory year in employment during which their competence to practice will be assessed. Postgraduate, distance learning and employment-based routes are still under consideration.

Under the new arrangements the Department will assume responsibility for all social work student funding following a re-examination of the current student funding.

3. THE SOCIAL SERVICES WORKFORCE

3.1 Workforce Structure

The social services workforce is made up of a diverse range of staff grades with different roles, entry requirements and career structures. Further differentiation relates to the sector and setting in which these groups work and the client group upon which they focus. Figure 3.1 summarises the settings and sectors within which the broad staff groups can be found and the sections below provide a brief overview of the main grades covered by this report.

Figure 3.1
Social Care Workforce – Settings and Sectors

Staff Group	Professionally Qualified Social Workers			Vocationally Qualified and Unqualified Social Care Staff		
Sector	Statutory	Voluntary	Private	Statutory	Voluntary	Private
Fieldwork	✓	✓	✗	✗	✗	✗
Residential	✓	✓	✓	✓	✓	✓
Daycare	✓	✓	✓	✓	✓	✓
Domiciliary	✗	✗	✗	✓	✓	✓
Probation	✓	✗	✗	✗	✗	✗
NI Guardian Ad Litem Agency	✓	✗	✗	✗	✗	✗
Education Welfare Officers	✓	✗	✗	✗	✗	✗

3.1.1 Professionally Qualified Social Workers

Social workers provide and co-ordinate support for individuals and families. They provide services in the community (fieldwork), residential homes, daycare units and hospitals and generally work with particular client groups including:

- Families and children;
- The elderly;
- People with physical, sensory or learning disabilities;
- People with mental ill-health.

Most social workers are employed in the statutory and voluntary sectors and a small number work in the private sector. The entry qualification for Social

Work is also required to become a Probation Officer, an Educational Welfare Officer and a Guardian Ad Litem.

The Diploma in Social Work (and its predecessor equivalent qualifications) is the qualification requirement for all Social Workers. The four routes through which this qualification can be obtained in Northern Ireland were described in Section 2.10.

On satisfactory completion of qualifying training Social Workers are eligible to apply for practitioner posts and to register for the first stage of post-qualifying (PQ) training. The PQ framework includes Post Qualifying Awards in Social Work (PQSW) and Advanced Awards in Social Work (AASW). Both these awards are based on credit accumulation and can be achieved through completing an accredited training programme (for example the Practice Teaching Award), through work-based learning and the construction of a portfolio or through a combination of both.

PQSW is divided into two parts, Part I being the consolidation of learning during the DipSW and Part II being the development of more advanced expertise and skills. Social Workers can register for the ASQW on completion of the PQSW. The advanced award recognises the achievements of Social Workers who have demonstrated leadership and expertise in their practice.

Accredited training programmes enable specialisation in particular fields of practice. The accredited programmes at the PQSW level are:

- Consolidation Programme;
- Community Care Programme;
- Approved Social Worker Programme;
- Child Care Award Programme;
- Criminal Justice Complex Work Programme;
- Practice Teacher Training Programme

The accredited programmes at the AASW level are:

- MSc in Advanced Social Work;
- PG Dip/MSc in Professional Development within the Community;
- PG Dip in Health and Social Services Management;
- Diploma in Applied Social Learning Theory in Childcare;
- Introduction to Research Methods and Quality Assurance; and
- Advanced Counselling.

With the exception of the Consolidation Programme, Social Workers require two-years practice to register for the PQSW accredited programmes and five-years practice to register for the AASW programmes. While completion of

the PQ and advanced awards provides a basis for career progression, there is no system of pay increases or bonuses linked to the PQ framework.

The career progression route for social workers is typically:

- Social Worker – entry level;
- Senior Social Worker (also known as Team Leader/Residential Unit Manager) – 3 years post-qualifying experience;
- Senior Practitioner – 3 years post-qualifying experience;
- Assistance Principal Social Worker (APSW) – 5 years post-qualifying experience; and
- Principal Social Worker (PSW) – 5-7 years post-qualifying experience.

Practitioner rates of pay range from £16,734 at the entry level Social Worker grade to £31,971 at Principal Social Worker grade.

3.1.2 Vocationally Qualified Social Care Staff

This wide-ranging group comprises all of those working in social care who are not professionally qualified social workers. Social care staff work with a wide range of clients, providing support in residential units, daycare establishments and in clients' own homes (domiciliary care). A large proportion of the social care workforce is employed by voluntary and private sector organisations, many of which deliver services under contract to the four Health and Social Services Boards.

The main qualifications available for social care are NVQs in:

- Care (Level 2, 3 and 4);
- Caring for Children and Young People (Level 3);
- Diagnostic and Therapeutic Support (Level 3); and
- Promoting Independence (Level 4).

Employers are increasingly stipulating NVQ Level 2 in Care or equivalent as a minimum entry criterion for social care posts, but for many such jobs, there are no qualification requirements. Rather, employers will seek previous social care work experience, evidence of the required competencies and a caring attitude.

Rates of pay are variable depending on the setting in which care is being delivered and the sector in which the social care worker is employed. While those in senior and management positions are typically salaried, most care assistants, project workers, residential workers, domiciliary care workers and daycare workers are paid on an hourly basis. Hourly rates range from minimum wage (£4.20 per hour) up to around £6 per hour.

There is no defined career structure for social care roles and opportunities for progression are dependent on the employer. Some will encourage staff to

undertake training and development with a view to progressing on to, for example, a co-ordinating or managerial post or into professional social work.

3.2 Workforce Composition

No single data source exists for the entire social services workforce and even among the individual sectors, data sources are unreliable and incomplete. The registration of the social care workforce by NISCC will in time provide a more realistic picture of the number of people in the sector, but for the purposes of this review a range of data has had to be employed. The data sources available to the review and their respective reliability and completeness are set out in the following sections.

3.3 Statutory Sector

3.3.1 DHSSPS Human Resources Management System

All HSS Trusts provide a download of their combined payroll and personnel systems to the Department on an annual basis for addition to the Human Resource Management System (HRMS). This download provides a snapshot of all the people employed by the Trust at that point in time including information on:

- Department/speciality;
- Grade;
- Trust;
- Age;
- Gender; and
- Part-time/Full-time working.

Departmental statisticians with the assistance of the Social Services Inspectorate (SSI) generated a dataset for this review, which included staff in the following groups:

- Senior management and management positions;
- Practising social workers (Senior Social Workers, Senior Practitioners and Social Workers);
- Unqualified Social Workers and Social Work Assistants;
- Care Staff in Daycare Settings;
- Care Staff in Residential Settings; and
- Rehabilitation Workers for the Blind.

There is inconsistency in terms of the grade names given to social services jobs across Trusts such that there may be several names used on the system for the same post. Therefore, generation of these summary groups required a manual process of grouping around 70 grade titles into these broader

categories. While it provides useful information on these groups, there are important omissions in this dataset, most significantly the absence of domiciliary care workers of whom there are large numbers in many HSS Trusts. Most social services staff are recorded on HRMS under Social Services Terms and Conditions (TC6) however, some Trusts record hourly paid staff such as domiciliary care workers under the Ancillary and General Terms and Conditions (TC4). This latter category also includes grades such as domestic workers, maintenance staff and transport staff and many Trusts do not maintain full personnel details for these workers. Therefore, the Department's Statistics Branch excluded domiciliary care from its analysis on the grounds of data qualify.

The dataset compiled from HRMS for this exercise produced the workforce figures in Table 3.1.

Table 3.1
HRMS Workforce Figures (Headcount)

Senior Management	64
Management	207
Total Management	***271***
Senior Social Worker	471
Senior Practitioner	12
Social Worker Qualified	1,617
Total Social Work Practitioner	***2,100***
Social Worker Unqualified	173
Social Work Assistants	338
Care Staff (Day)	712
Care Staff (Residential)	452
Total Social Care	***1,675***
Rehab Workers for Blind	26
Workforce Total	**4,072**

Source HRMS September 2001

The HRMS dataset provides information on the age and gender breakdown of each staff group. This is summarised in Table 3.2.

Table 3.2
Age, Gender and Part-Time/Full-Time Breakdown of Social Services Staff

Age Groups	Management	Qualified Social Workers	Social Care Workers	Rehab Workers
25 and Under	0%	2%	4%	0%
26 - 29	0%	9%	11%	8%
30 - 34	4%	16%	16%	19%
35 - 39	13%	21%	17%	12%
40 - 44	24%	21%	15%	23%
45 - 49	26%	16%	13%	12%
50 - 54	18%	9%	12%	4%
55 - 59	10%	5%	8%	19%
60 - 64	5%	2%	3%	4%
65+	0%	0%	0%	0%
Total	100%	100%	100%	100%
Female PT	31%	62%	55%	54%
Female FT	62%	19%	16%	27%
Male PT	6%	19%	26%	19%
Male FT	1%	1%	2%	0%

Source: HRMS (September 2001)

This data indicates that the workforce is predominantly female and, with the exception of Rehabilitation Workers for the Blind, generally quite young.

3.3.2 Training Support Programme Applications

Data has been provided from the Applications made by each Board for the Department's Training Support Programme which provides funding for education and training of social services staff. The applications require Boards to detail the social services workforce employed by each respective Trust and their qualification profile. The forms provide a snapshot of staff in post (headcount rather than whole time equivalent) as at 1st February 2002.

The definition of Social Services Workforce used in the applications comprises:

- Care Assistants;
- Day Care Workers
- Family Aids;
- Family Support Workers;
- Community Workers;
- Rehabilitation Workers for the Blind;

- Deputy Officers in Charge;
- Officers in Charge;
- Heads of Homes;
- Social Workers;
- Project Workers;
- Care Managers;
- Senior Practitioners;
- Senior Social Workers;
- Assistant Principal Social Workers;
- Principal Social Workers;
- Programme Heads;
- Directors;
- Chief Executives;
- General Managers;
- Training Staff.

It does not comprise Domiciliary Care Workers who are counted separately or fostercarers, childminders, volunteers, administrative, clerical and general ancillary staff, or early years workers who are not qualified Social Workers.

Table 3.2 sets out the number of social services staff in the statutory sector according to this data source.

Table 3.2
Training Support Application Workforce Figures (Headcount)

	EHSSB	NHSSB	WHSSB	SHSSB	Total
Practising Social Workers	713	389	306	268	1,676
Social Work Management	272	162	89	125	648
Domiciliary Care	1,659	1,468	1,628	2,109	6,864
Other Social Care	1,408	648	614	429	3,099
Other Social Care Management	231	145	65	65	506
Total Social Services Workforce	4,283	2,812	2,702	2,996	12,793

Source: NISCC February 2002

This is the most complete data set available in terms of coverage of the range of social services jobs, but it does not provide the information on age, gender, and working patterns necessary for workforce projections.

3.3.3 NISCC Workforce Plan for Social Workers

NISCC published a Workforce Plan for Qualified Social Workers in March 2002. The plan was based on a survey of the statutory bodies employing qualified social workers (Community HSS Trusts, PBNI and other Criminal Justice Establishment, Educational Welfare and the Northern Ireland Guardian Ad Litem Agency, NIGALA) and a sample of voluntary sector employers. Workforce data returned reflected headcount of practitioner grade social workers at March 2001 and provided the following figures.

Table 3.3
NISCC Workforce Plan - Practitioner Grade Social Workers (Headcount)

HSS Trusts	1459
Criminal Justice	176
Education Welfare	65
NIGALA	39
Total	**1739**

Source: NISCC 2002 (Figures as at March 2001).

3.4 Voluntary and Private Sectors

There is little information about the social services workforce in the voluntary and private sectors.

NISCC in partnership with the Voluntary Organisations Forum (VOF) and the Northern Ireland Council for Voluntary Action (NICVA) undertook a scoping study in 2002. 'Scoping the Voluntary Social Care Sector' provides some indicative figures for the voluntary sector but is based on a survey and therefore does not provide a full workforce headcount. The scoping study estimated that there are between 2,500 to 3,000 voluntary sector social care employers. However, some of these focus on community development activity rather than social care as defined by this review.

A total of 972 organisations responded to the survey and indicated that they employed an average of 13 members of staff.

There is no reliable data that would enable the above noted 2,500-3,000 voluntary sector employers to be disaggregated into social care as opposed to community development.

If a conservative estimate of fifty per cent is taken and the average number of employees found in the survey is applied, there are an estimated 19,500 social care staff employed in the voluntary sector (50% of 3,000 times average of 13 staff per organisation).

As regards the private sector, information is available on elements of provision but not on the social services provision within the sector as a whole. For example, the DHSSPS Registration and Inspection Unit maintains data on the number of private

sector residential and children's homes but since private sector domiciliary and daycare providers are not required to register with the R&I Unit no information is collated on this provision.

A very high level estimate of the number of people working in voluntary and private sector social services can be obtained by subtracting statutory sector employees from the number of employees in this industry group as a whole. The Northern Ireland Census of Employment (DETI, 1999) records the number of employee jobs by Standard Industrial Classification (SIC). The number of employee jobs in the category Health and Social Work in 1999 (the date of the last Census of Employment) was 94,006. Of these, 35,216 fell into the sub-category Social Work Activities. The Training Support Application figures in Section 3.2 above which provide the most complete estimate at this point of social services staff in the statutory sector, suggest that around a third of these are accounted for by statutory sector employees. Therefore, it is estimated that there are some 23,000 in the voluntary and private sector workforce. No information is available on the age breakdown within this sub-category, but a gender and part-time/full-time split is provided in the Census of Employment. The breakdown is as follows:

- Male – 14%;
- Female – 86%;
- Part-time – 61%;
- Full-time – 39%.

3.5 Data Used for the Review

Elements of the various data sources described above have been used for this review with appropriate caution regarding data quality and coverage. The Training Support Programme Application figures have been used as the base population for the statutory social services workforce complemented by trend data from HRMS. The estimated total number working in the private and voluntary sectors is the figure quoted above of 23,000.

4. KEY ISSUES - SUPPLY

Set out below are the key supply issues raised during stakeholder interviews and focus groups in relation to recruitment and retention within the Social Work and Social Care areas of the workforce. Both groups within the workforce raised many similar issues. Comments represent the perceptions and experiences of those consulted during the review.

4.1 Social Work

4.1.1 Professional Social Work Training

The number of people applying for professional social work training courses has declined nationally in recent years. Between 1996/97 and 2001/02, an average of 172 trainees per year or 1,031 in total completed professional social work training in Northern Ireland. These figures are shown in the table below.

Table 4.1
Number Completing DipSW 1996-2002

Intake Year	Outturn Year	Number Qualifying
94/95	96/97	187
95/96	97/98	183
96/97	98/99	187
97/98	99/00	177
98/99	00/01	188
99/00	01/02	109

Source: NISCC (Includes all training routes)

NOTE: 2001/02 OUTTURN FIGURE TO BE CONFIRMED BY NISCC

There was a significant decrease in the number of students enrolling for the full-time non-graduate course in 2000. Only 24 trainees enrolled that year compared to an average of 40 in previous years. The decrease has been attributed to the level of financial support available to students undertaking the course. Those seeking to enter the profession via the non-graduate route tend to be mature students seeking a career change. Many have families and existing financial responsibilities. University of Ulster reports that the current support arrangements for this entry route can be off-putting to prospective students.

A high proportion of students on all of the college-based training courses (even those on the DipSW course which attracts a bursary) are required to work part-time on top of their studies and practice placements. University of

Ulster reports that financial difficulties have led to a small number of students dropping out of its non-graduate course altogether.

NISCC figures show that between 1996/97 and 1999/00, there was an attrition rate of between 4 and 8.8 per cent or 6.75 per cent on average.

The new arrangements for social work training will involve completion of a three-year, full-time degree followed by a pre-registration year in practice during which trainees' competence to practice will be assessed. Key informants expressed concern about how the pre-registration year will be supported in the service. Many Trusts already find it difficult to meet the number of placements required of them as social workers are reluctant to take on the role of Practice Teacher. There was a perception that new arrangements will require many more practice teachers.

Current arrangements for financial support for the Practice Teacher system are not perceived to be effective. The Department provides some financial support to the provider to cover the amount of time spent by the Practice Teacher in supporting students. It is felt that the sum is too little to enable someone to be employed part-time as backfill for the Practice Teacher so some Trusts are giving the payment directly to them as a bonus. While this solution may encourage social workers to take on the Practice Teacher role it does not address the issue of reallocation of a component of his/her caseload.

4.1.2 Recruitment & Retention

Consultation suggests that recruiting social workers has been particularly difficult in certain areas and for certain types of posts. These include temporary posts and senior posts, voluntary sector childcare and youth justice and residential childcare. One statutory children's home recruited unqualified staff and trained them as it could not get qualified staff for its vacancies. Most of the key informants indicated that they had current vacancies and recent experience of a very poor response to advertisement. Some social workers also complained that there are delays between posts becoming vacant and being advertised resulting in increased workload for remaining members of a team.

Northern Ireland employers are competing with Republic of Ireland (ROI) employers for social work staff at all grades, but in particular for newly qualified social workers. Advertisements regularly appear in Northern Ireland newspapers for qualified social workers in ROI. These posts offer a higher salary than in Northern Ireland and are a particular threat in the border regions.

For most employers however, low retention rates have had a more serious impact than recruitment problems. This is particularly true of residential childcare and family and childcare teams. For example, in one voluntary sector focus group, one participant reported that around 10 social workers had come and gone from the organisation in which she works in the last two years and another had advertised four times for social workers in the last year. Retention rates are reportedly higher in other programmes of care.

Variation was evident between rural and urban settings, in that it tends to be easier to recruit for posts in urban than in rural areas but turnover rates are higher.

Anecdotal evidence suggests that social workers move between client groups and work settings, and between the statutory and voluntary sector but tend not to leave the profession altogether. Unfortunately data on the flows between sectors is not maintained.

Typically, newly qualified social workers start their careers in family and childcare or residential childcare which has the greatest number of job opportunities, then leave for a position which is perceived to be less stressful, for example, hospital social work or one of the adult programmes. Therefore, the least experienced tend to be in the most acute, stressful environments.

Many residential social workers moved from the statutory to voluntary sector when Boards contracted these services out during the 80s and 90s. However, this trend has slowed recently and there has been some movement back into the statutory sector again following the closure of some voluntary residential units.

Employers in both the statutory and voluntary sectors have made attempts to enhance their offering to social workers to try to fill vacancies and improve retention. Steps taken have included:

- an aggressive approach to recruitment, using a range of newspapers and journals, and targeting students on the social work training programmes;
- advertising in national press to target professionals from Northern Ireland working in GB who might want to return to practice here;
- encouraging students already on placement with them to consider taking up positions on completion by offering enhanced supervision and support and by offering more placements overall;
- providing an enhanced induction programme involving a welcome from senior staff within the Trust and more opportunities for the new staff to familiarise themselves with the team before taking on a full caseload;
- generating positive local public relations by issuing a press release and inviting local newspapers to a welcome event for new recruits; and
- offering enhanced starting salaries or 'golden hellos' (a starting bonus).

4.1.3 Salary, Terms and Conditions

There is a view that social worker salaries have fallen behind similar professions and that they are not commensurate with the level of responsibility they have and the risks associated with the job. Entry salaries are broadly in line with those for similar professions, but reward for

experienced Social Workers is limited in comparison with other health and social services professions.

The basic starting salary for a newly qualified social worker is £16,734 (DHSSPS, 2001 Pay Circular) compared to:

- A newly qualified nurse (Grade D) who starts at £16,005 (DHSSPS 2002);
- A Clinical Psychologist (Grade A) who starts at £17,078 (NHS 2002);
- Teachers who start at £17,001 (unless they hold a 2.2 at honours degree level in which case they start at £16,038) (DE 2002); and
- Police constables who stand to earn £19,842 after initial training (PSNI 2002).

Post qualification, salary levels for practising Social Workers are as follows (2001 figures):

- Social Worker - £16,734 to £24,072;
- Senior Social Worker - £24,072 to £26,310 (requires around 3 years post-qualifying experience);
- Senior Practitioner – as Senior Social Worker but with additional points to £27,003 for those working on average 10% of their hours at weekends (requires around 3 years post-qualifying experience);
- Assistant Principal Social Worker - £26,310 to £29,133 (requires around 5 years post-qualifying experience); and
- Principal Social Worker - £29,133 to £31,971 (requires around 7 years post-qualifying experience).

The maximum salary within 'practitioner' grades (Social Worker and Senior Practitioner) is therefore between £26,310 and £27,003. Nursing pay scales are similar up to the first management grade (Grade G Sister/Charge Nurse), which attracts a salary of between £22,385 and £26,340. However, there is greater scope for career progression within practice in nursing than in Social Work, with the availability of Nurse Specialist (Grade H and I) and Nurse Consultant positions. The latter are involved in direct patient care for at least 50 per cent of their time and carry out research, education and development activity for the remaining time. Salaries for these posts are well in excess of the practitioner grades within Social Work:

- Nurse Specialist Grade H - £25,005 to £29,065;
- Nurse Specialist Grade I - £27,695 to £31,830; and
- Nurse Consultant - £33,940 to £46,675.

Similarly, while remuneration for Clinical Psychologists in the lowest Grade A position is only slightly higher than for newly qualified Social Workers, it extends to a considerably higher level. The top of the Grade A scale is £38,919 and the Grade B scale goes from £37,421 to £62,312.

There is no differentiation between rates of pay for different areas of social work. While some consider that work that is perceived to carry higher risk and greater personal responsibility should be rewarded at a higher rate, many are of the opinion that salary differentiation would be divisive and would have a negative impact on the profession as a whole. Rather they suggest that a higher level practitioner grade should be used for more complex, higher risk cases.

Salaries offered by voluntary sector organisations are generally equivalent to those in the statutory sector to enable them to compete for staff. However, terms and conditions may vary, for example holiday entitlement may be lower and contracts may be fixed-term rather than permanent. Voluntary sector organisations reported difficulties in recruiting more experienced staff because they are unable to offer equivalent pension arrangements to those in the statutory sector.

As noted above, some employers have offered higher rates of pay for entrants into the profession taking up posts or 'golden hellos' to new recruits. This is evident in residential childcare and youth justice.

As regards terms and conditions, variation was reported between Trusts and even between teams in the same Trusts in terms of the way in which social workers are recompensed for overtime hours they are required to work. Some are paid at normal or enhanced rates while others are offered time in lieu.

4.1.4 Career Progression and Post Qualifying Development

Consultees reported difficulties in moving between programmes of care once qualified and limited opportunities for career progression within professional practice.

Social workers can feel tied to a particular area of work at an early stage of their career. There was support for the provision of more opportunities for secondment to other teams or sabbatical leave to pursue further training or research. However, these periods of absence would have to be backfilled appropriately to ensure other staff do not suffer as a result of increased workload.

The social work career structure provides very limited opportunities for senior roles that still allow client contact. Most Social Workers progress to the Team Leader (Senior Social Worker) position. However, this role is seen as unattractive because of the loss of client contact and the relatively small pay increase it carries compared to the increased level of responsibility. There is only £621 difference between the bottom of the Team Leader scale and the top of the Social Work scale and Team Leaders tend to do less mileage than Social Workers so accrue fewer expenses. The Team Leader post does however provide general management experience, which enables holders to qualify for positions outside of their current area of work.

In addition, there is low turnover among the senior management grades so there tend to be few vacancies for positions above Team Leader. In residential settings opportunities for progression are perceived to be even poorer as turnover at Head of Home level tends to be very low.

A new Senior Practitioner post was introduced to enable Social Workers with considerable experience to maintain a client facing role and provide specialist support to less experienced practitioners. The post is positioned at the same point of the scale as the Senior Social Worker post. However, there has been some variation in the way in which the Senior Practitioner grade has been used by Trusts and not all Trusts have introduced Senior Practitioner Posts. There is therefore potential to improve the use of this role and to develop more advanced level practitioner posts in the same way that senior nursing practice posts have been developed. Development of senior and advanced practitioner grades could contribute to retention of experienced Social Workers in practice.

A national post-qualifying (PQ) awards framework exists for social work, but completion of PQ training is not directly associated with career structure and there is currently no requirement for Social Workers to undertake training and development following qualification. However, it is likely that a minimum amount of continuous professional development (CPD) will be required in order to maintain registration with the NISCC.

Newly qualified social workers are expected to complete the PQ1 award within two years of qualifying but, while many start the award only some actually complete it within that timescale. It is felt that there is little incentive to undertake post-qualifying training and courses as they are not linked in any systematic way to career progression or reward. For example, there are no arrangements for additional salary points on completion of training as in other professions, for example the 'responsibility points' used for teachers and the increments now available to nursing auxiliaries on completion of NVQ Level II and III in Care.

Uptake of post-qualifying awards and in-house training has been low in recent years and those that do enrol often defer or cancel due to workload pressures. Working in small teams exacerbates the problem because it makes it more difficult to release people for training, particularly if another team member is absent due to illness. There is a sense that dropping out of a planned training event is almost inevitable.

One of the awards in the PQ framework is the Practice Teacher award. Reluctance to undertake this qualification reduces the capacity to provide student placements.

The residential social workers consulted feel that there is limited training provision relevant to their work and that training tends to be practically difficult for them due to the mismatch between the hours in which courses are delivered and the shift patterns in which they work.

4.1.5 Professional Status

Almost all of those consulted during this review perceive a lack of esteem for the social work profession, both from an internal (other health and social services professionals) and external perspective (public perception).

Social workers increasingly practice in multi-disciplinary teams and with the proposed development of primary care services this trend is likely to

continue. They are concerned that the healthcare professionals in these groups are afforded greater respect, with the social work contribution being undervalued. There is also concern around social workers being managed by other professionals within a multi-disciplinary team. In these situations a third party social worker from outside the team is required to provide supervision. This situation is perceived as potentially damaging to the status of the profession.

Focus group participants were concerned with the negative public view of social work, which they attributed to high profile instances of, for example, child abuse, where the role of the social workers involved has been put under intense public scrutiny. With the exception of the recent advertisement campaign that sought to attract people into a social work career, focus group participants were unable to name any other positive public relations associated with the profession. It was felt that the public does not understand the range of services that social workers provide.

It is hoped that the NISCC can have a positive contribution in terms of raising the professional and public status of social work above current levels.

4.1.6 Volume and Nature of Work

Discussion in this area focused on:

- The challenges faced by social workers in terms of the volume and complexity of cases each social worker has to deal with and the associated levels of risk;
- Changes to social work practice as a result of recent legislation; and,
- The impact of both these factors on practitioners' stress levels and absenteeism.

There is currently no generally accepted systematic means by which to measure or manage the number and type of cases each social worker has, so it is not possible to assess any change in caseload objectively as part of this review. However, social workers reported that the number and complexity of cases they deal with has increased along with the level of personal responsibility and risk they carry. This was particularly evident in Family and Childcare where social workers have a statutory child protection responsibility and in residential settings where social workers have 24-hour responsibility for children in their care. Both these groups also raised the issue of verbal and physical violence inflicted on social workers by clients or clients' families.

As noted previously, many of those working in these settings are the most inexperienced social workers, some of whom may not even have had a practice placement in the area in which they have secured a post. There is limited capacity within these teams to support progressive introduction of new staff and they tend to feel they have been "thrown in at the deep-end".

Recent legislative changes, most notably the Children Order, have resulted in greater regulation, control, record-making and administration. The time

family and childcare social workers spend preparing for or attending court hearings has increased substantially and is the subject of a current review by the Children Order Advisory Committee. IT equipment (for example laptop computers) is not always available to support administration activity.

Consultees complained that as a result of these additional administrative requirements, they have no time to "do social work", that is, the sort of therapeutic and client support that went into the profession to provide. They feel they simply respond to case crises rather than being a position to manage their caseload more proactively. Many social workers take paperwork home so they can spend as much of their working day as possible on client contact.

Resource provision for Family and Childcare teams in Northern Ireland Trusts has been the subject of industrial action within the last twelve months. Both North and West and Foyle Trusts have increased staffing resources following the completion of independent reviews of childcare provision.

The voluntary sector seems to be perceived as being less bureaucratic, offering more opportunities for client contact and therapeutic intervention. Social workers in voluntary sector organisations reported having more autonomy, more flexibility to try new approaches, less regulation and less public scrutiny. Also, focus group participants felt that voluntary sector positions evoke a much higher level of respect from the public than statutory social work positions.

Absenteeism among social workers was not reported to be a significant problem in the voluntary sector agencies with whom we consulted, but was considered to be a growing difficulty in the statutory sector.

While motivation levels are reportedly high among newly qualified social workers, they quickly become de-motivated and cynical as a result of the heavy workload and high levels of personal responsibility they continuously face. This can have an impact on health and lead to absenteeism or loss of staff. NIPSA reports that people tend not to go on sick leave at an early stage of illness as they have concerns that their workload will simply increase in their absence. Rather they wait until their illness no longer allows them to continue working and often require more time off as a result. This view was echoed by focus group participants. Absence of one or more staff members due to illness puts further pressure on remaining staff who may have to cover their caseload.

Social workers participating in focus groups felt that the workload and stress in Family and Childcare results in staff losses and the reputation of this area of work means that only the newly qualified social workers keen to begin practice will consider filling vacancies. The view was expressed that Trusts need to pay attention to health of workforce to ensure that absenteeism and related staff turnover does not increase further.

While counselling services are available to many working in the statutory sector through Occupational Health, focus group participants reported being reluctant to use the service in case they are perceived as less than competent by peers and managers. In addition, they considered there are insufficient

opportunities for peer support and development, for example through regular discussion groups.

Some employers are considering introducing more formal workload management systems that will restrict the number of cases each social worker has. Consultees were ambivalent with regard to this issue. While some cannot countenance the idea of waiting lists for social work clients, others consider that each social work team can only provide a service to a finite number of clients without incurring increased risk and personal stress.

4.1.7 Working Hours and Work-life Balance

The requirement to provide 24-hour cover in residential settings results in shift working patterns, which are not attractive to everyone. Many find the pattern of night working and on-call shifts disruptive to their lives outside work and will seek positions where '9 to 5' working is the norm after a relatively short period. Working hours is considered to be one of the key factors relating to staff turnover in residential care.

Employers have not yet fully addressed the impact of the European Working Time Directive on residential and other social services where out of hours or on call services are provided but will be required to do so as soon as possible.

Employers reported some increase in requests for different working arrangements and this trend is expected to continue as a result of the predominantly female workforce in social work and European trends towards greater work-life balance. It was felt that while the number of formal applications was still quite low, a demand for alternative working patterns does exist. Most Trusts react to formal applications on a case by case basis and try to come to an arrangement that meets the needs of the service and the individual concerned. There was some perception among social workers though that employers did not always replace the hours lost due to, for example, term-time working or extended maternity leave.

Flexible working patterns and other work-life balance polices are recognised as a key element of an attractive package employers could establish to encourage people into the profession and increase retention.

4.2 Social Care

4.2.1 Recruitment and Retention

While many organisations employing social care staff have a highly stable core group of staff they suffer from quick turnover of the remainder who tend to be younger, less experienced staff, perhaps on the first rung of the career ladder. In some organisations the stable group consists of older staff so succession planning is an issue.

There are difficulties in filling vacancies across the social care sector in domiciliary, residential and daycare provision, and in the statutory, private and voluntary sector. Many providers have constant advertisements placed with jobcentres and regularly use agency staff to meet staffing requirements.

Recruitment difficulties seem to be most significant in domiciliary care in the statutory sector, and recruitment of care staff is also a growing problem care for residential units (in all sectors) and early years childcare. There are fewer difficulties recruiting into daycare.

It can be even more difficult to recruit social care staff in rural settings where there is a smaller pool from which to attract candidates. Employers in urban areas (Belfast in particular) tend to attract social or health care students and graduates seeking work experience. However a high turnover rate is associated with these recruits.

There is concern that the quality of provision may suffer because of staff shortages and the poor calibre of applicants.

The key issue with regard to attracting people into the sector is competition with work perceived to be cleaner, less challenging, at least as well and generally better paid and usually requiring limited experience or qualifications. Social care employers are often competing with retailers, commercial firms and call centres for staff.

Recruitment and retention difficulties have prompted reviews and changes in terms and conditions. Employers have tried to encourage people into the sector and create loyalty by introducing:

- Loyalty bonuses – increase in hourly rate and holiday entitlement for long serving employees;
- Higher rates of pay; and
- Improved provision of training and development opportunities.

4.2.2 Nature of Work

Social care work encompasses a broad spectrum of activity in residential, daycare and domiciliary settings. Care workers could be providing:

- domestic services – for example, preparing light meals or cleaning in a clients home;
- personal care services – for example, washing and changing adults in their home, a residential home or in a daycare centre, or caring for young children in a crèche;
- healthcare services – for example, changing dressings and providing stoma care; and
- social, emotional, educational or vocational support – for example, delivering a programme of activities in a daycare centre or residential home, supporting disabled young people to attend college or providing vocational training for adults with mental ill health.

Activities therefore range from general tasks requiring little training to tasks where specialist skills and knowledge are required, which may previously have been undertaken by professionally qualified social workers, nurses or health visitors.

The demand for community and residential care has increased substantially due to demographic, medical and political factors. People live longer and can live out of hospital with more severe medical conditions than was the case previously. Government policy has favoured increased community care and decreased hospital-based provision for non-acute cases.

Social care has become more complex and physically challenging than before because of the nature of clients' physical conditions. Other factors also make many social care roles difficult. For instance, staff providing home care are unsupervised and operating in a relatively high risk situation in terms both of risk to clients and themselves. Care workers in residential children's homes face many of the same stresses as residential social workers in that setting, with respect to 24-hour working patterns, risk from physical harm and verbal abuse.

Despite the challenging nature of social care work, staff perceive that there is little respect for their role both from the public, and from social and healthcare professionals. There is a perception that they assume all social care workers simply provide domestic services.

Although team working has been introduced for some domiciliary care workers, others still work alone, with little contact with colleagues. These workers suggested that more time should be allowed for staff development and support through team meetings.

4.2.3 Pay and Conditions

The hourly rate of pay for social care workers is usually close to minimum wage. Consultees considered that this rate does not always reflect the complex and difficult nature of much of the work undertaken.

Rates of pay are reasonably consistent within sectors but there can be large differences in the hourly rate paid by statutory and private sector providers (as much as £1/hour). Community based employers can also pay poor rates (for example, community based crèche provision). Voluntary sector pay rates are generally equivalent to statutory rates.

Terms and conditions also vary between the statutory, voluntary and private sectors. Statutory sector conditions are generally perceived to be most favourable whereas, private sector conditions are seen to be poorest; with staff often receiving little or no enhancements for overtime, weekend, nightshift or holiday cover. Private sector agencies providing care staff to other providers may not provide any holiday or sick pay for their workers. While voluntary sector care staff perceive that terms and conditions in the statutory sector are better some consider the higher level of morale in the voluntary sector offsets any financial disadvantage.

There is no clear differentiation in pay and conditions based on the type of care provided. Residential childcare staff feel that their work deserves a higher rate of pay commensurate with the level of responsibility they have for clients. Also domiciliary care staff feel there should be differentiation between those providing personal care and those providing domestic care services. Focus group participants were keen to emphasise that while it

important to ensure remuneration is consistent with the work undertaken and equitable across similar jobs, salary is not the most important factor with regard to retention. Social care workers who stay in the sector are motivated to care for others and develop a commitment to their client group.

Many social care staff work on part-time contracts. Domiciliary carers are often contracted for a guaranteed minimum number of hours, and some work on zero hour contracts. While these staff often work many more hours than their minimum guarantee, such contracts present considerable financial instability.

Social care workers in the voluntary sector may be employed on short-term contracts consistent with the pattern of funding in this sector. This has an impact on staff retention as many will seek permanent employment contracts in favour of fixed-term. It also effects morale within the organisations.

Car ownership is an essential requirement for domiciliary care workers. Focus group participants complained that the travel expenses paid were insufficient and that there was no allowance for the higher cost business insurance required.

4.2.4 Working Hours and Working Time Directive

The social care staff in residential settings provide 24 hour / shift working patterns which are unattractive to many and are linked to staff turnover.

Domiciliary care workers work a variety of patterns, including the traditional 7 day patterns where the worker provides a small number of hours every day and therefore does not regularly have days off. Many domiciliary care workers now work over a five-day period and therefore have two days off every week. This is considered preferable by the workers.

Working hours are less problematic in the day care setting where social care staff generally work a set number of hours per day on a Monday to Friday basis.

There are issues with regard to the impact of the Working Time Directive on social care staff, particularly those working in shift patterns and providing 24-hour cover. Some staff in private and voluntary sector organisations are being asked to opt out of the Working Time Directive, but consultees expressed concern about this, wondering how informed their decision is and whether they are in a position to refuse given their dependence on managers' goodwill regarding allocation of hours.

4.2.5 Training and Career Progression

While many employers now seek an NVQ Level 2 in Care from new recruits to social care jobs, this is often a desirable rather than essential criterion and work experience is generally accepted as an alternative.

NISCC will set the qualification standards for social care workers but the process of matching qualifications to the diverse range of social care posts has not been completed as yet. It is anticipated that NVQ Level 2 in Care will be the registration requirement set for social care workers.

The social care workforce is provided with variable levels of training. Some staff may only receive basic induction training whereas some employers have comprehensive staff appraisal and development systems that allow staff to undertake further training and qualifications. A number of focus group participants reported having undertaken NVQ training at their own expense. Employers providing training opportunities perceive benefits in terms of workforce motivation and staff retention and hope to pre-empt the anticipated requirement for qualifications when registration is introduced.

The Department estimated in the early 1990's that 80% of social services staff did not have a relevant social care qualification and therefore set training targets for employers. While good progress has been made towards meeting these targets, there is still a large number of staff within the Social Care element of social services without an appropriate qualification. In view of the levels of unsupervised contact these staff have with clients and the responsibility they have for their wellbeing there is great concern over this situation.

Consultation suggested that students and assessors had concerns regarding NVQs, including:

- The amount of time required to undertake them and to assess trainees in the workplace and therefore the reluctance of some staff to undertake them;
- They are perceived as inflexible with regard to applying them to individual work settings and required competencies;
- Candidates presenting for vacancies who have appropriate NVQs cannot always demonstrate the competencies required for the job;
- There is no allowance for the years of experience staff may already have;
- They require a certain level of literacy skills which not all employees will have; and
- They involve costs in terms of assessor time, time out for trainees and registration.

Service providers are working under contracts or with programme budgets which generally do not include training costs. There are concerns about the capacity to support the costs associated with training a very large number of staff in the event that NISCC registration makes vocational qualifications a requirement. These costs could not be supported within programme budgets.

There is no established career structure for social care workers as a whole. Opportunities for progression vary from employer to employer and within different settings. There are generally better career progression opportunities in residential care and daycare than in domiciliary care. Staff in residential and daycare setting can progress to senior care assistant/daycare worker posts and deputy manager posts but turnover is low in these positions so opportunities can be rare. Some social care staff in residential care and daycare settings also have opportunities for secondment to complete

professional social work training through the employment route. In 2000/01, 78 social care staff registered for the employment based training course (NISCC). This enables them to progress to Head of Unit positions or to move to other areas of practice. However, focus group participants from voluntary sector providers reported their perception that it is very difficult to get a place on a social work training course due to high levels of competition.

Consultees were of the opinion that a formal career structure should be developed which spans the continuum of social care work from entry level care positions, through senior care positions reflecting experience and qualifications, to management positions and professional social work. They considered that a better career structure would have positive impact in terms of recruitment, retention and service quality.

5. KEY ISSUES – DEMAND

Those participating in the interview and focus group programme identified the following key demand issues.

5.1 Meeting Current Needs

Priorities for Action 2002/2003 reports a "substantive increase" in the number of people waiting for community care services and 433 care-managed patients delayed in hospital at the end of November 2001 due to the pressure on limited follow-up care resources in the community. This is only one area in which there is unmet demand - consultation during this review reported pressures on social services across the spectrum.

5.2 Demographic Change

The number of people needing care is set to increase as medical techniques and improved living standards lead to greater life expectancy. A growing number of elderly people could increase demand for health and social services in general and the demand for specialist services associated with medically complex cases could increase. In addition the trends towards smaller family units and greater mobility may also reduce the number of people available to assume the role of carer.

5.3 Skill Mix and New roles

Consultation suggested that in some areas there are opportunities to develop new roles and to differentiate roles to meet some of the current demands on social services staff time. Examples of newly developed positions include Contact Officers who supervise contact between parents and children subject to court orders and Court Officers who provide support services for court appearances relating to social work cases. Generation of positions in these and other areas could assist in meeting the demands placed on Social Workers.

5.4 CPD Requirements Following State Registration

While no requirement has been stipulated by NISCC for CPD as yet, consultees predict that in order to maintain registration, social care staff will be required to undertake a certain amount of training and development every year. For social care staff without appropriate qualifications, there will be a requirement to actually obtain them. It is expected that employers will have to bear much of the cost in terms of staff time (of both the trainee and the supervisor or assessor) associated with an increased focus on qualifications and CPD.

5.5 New Social Work Training Arrangements

The new arrangements for Social Work training will require all those who have completed the degree course to complete an assessed pre-registration year. The number of places available for Social Work trainees is also set to increase. Both of

these developments will increase demand for student placements, supervision and assessment.

5.6 Priorities for Strategic Service Development

The range of strategic policy reviews to which the Health and Personal Social Services in Northern Ireland currently underway were described in Section 2. Priorities for Action acts as an action plan for these strategic developments by stipulating the agreed actions for each year. The priorities set out in the 2002/3 paper which are most relevant to this workforce planning review are listed below.

5.6.1 Family and Childcare Developments

- An additional 52 residential childcare places between August 2001 and March 2003;
- Development of Phase II of the Children Matter Taskforce plan by October 2002;
- An additional intake of 36 trainee social workers by March 2003;
- An additional 15% practice placements to meet the needs of additional Social Workers;
- Consolidation and improvement of fostering services and implementation of SSI recommendations following the review of adoption services;
- Development of links between residential homes and schools and provision of educational support services for looked after children by September 2002;
- Provision of leaving care services by March 2003;
- Development of solutions to meet the needs of severely disabled children who could be cared for at home.

5.6.2 Care of Older People

- Community support for an additional 1,000 people to facilitate their return to independence and reduce the need for residential and long-term nursing home care;
- Reduce inappropriate admissions to hospital and reduce the number of people remaining in hospital after they have been assessed as medically fit to leave;
- Development of flexible respite services for carers by March 2003.

5.6.3 Mental Health

- Development of Assertive Outreach services for people with severe mental ill health in the community, with an overall goal of supporting 1,000 people in community settings by March 2003;

- Resolution of workforce issues to enable the provision of the 10 adolescent psychiatric beds from June 2002.

5.6.4 Learning Disability

- Development of community based services for people with disabilities in the community, with an overall goal of supporting 1,000 people in community settings by March 2003;
- Continued implementation of the programme of re-settling long-stay hospital patients with a learning disability.

5.6.5 Physical and Sensory Disability

- Development of a range of services for people with a physical or sensory disability or brain injury, with an overall goal of supporting 1,000 people in community settings by March 2003;
- Development of the Regional Acquired Brain Injury Centre according to the agreed implementation plan;
- Development of the range of therapy provision to reduce waiting times (children and adult services).

Implementation of these priority areas has the potential to significantly increase the demand for human resources in social care.

6. DATA MODELLING

6.1 Quality and Sources of Data

As discussed in Section 3, the availability and quality of data on the social services workforce is highly variable. In general, better quality data is available for the statutory social services than the voluntary and private sectors. However, even in the statutory sector, full information was not available for some groups. For example, age breakdown figures are not available for the domiciliary care workforce. In developing workforce projections for this review, it has therefore been necessary to use data from a variety of sources and projections are not as robust as would be possible if an authoritative central data source for the workforce were available.

Projections have been developed for statutory sector social services staff in the following groups:

- Practising Social Workers;
- Social Work Management;
- Domiciliary Care;
- Other Social Care;
- Social Care Management.

It has been possible to provide greater detail in the model for professionally qualified Social Workers than in the other models.

The impact of high level demand factors has been modelled for voluntary and private sector social care workers as one group as insufficient information was available to develop models for each staff group in these sectors.

In developing the models for the various groups, a series of assumptions was developed based on HRMS data, feedback from key informants, the NISCC Workforce Review and national workforce figures. The assumptions were agreed by the Steering Group are set out below for each group.

6.2 Modelling Assumptions - Statutory Sector Models

6.2.1 Workforce Population

The base population used for the statutory sector social services workforce modelling is the data collated by NISCC for the Training Support Programme Applications as this data source provides the most complete and up-to-date estimates of the workforce for the purposes of this review. The population is summarised in Table 6.1.

Table 6.1
Statutory Sector Population Used in Workforce Models

	Total
Practising Social Workers	1,676
Social Work Management	648
Domiciliary Care	6,864
Other Social Care (excl. Domiciliary Care)	3,099
Social Care Management	506
Total Social Services Workforce	12,793

Source: NISCC February 2002

6.2.2 Retirements

The following average retirement ages are based on information gathered by the Department (HRMS snapshot for September 2001) on current retirement trends:

Management	57 years
Qualified Social Workers	55 years
Social Care Workers	55 years

The Management average of 57 years has been applied to the Social Work Management and Other Social Care Management models. The Social Care Workers average of 55 years has been applied to the Domiciliary Care and Other Social Care Models.

Age information for each staff group was only available from HRMS in five year age bands. These age trends (as set out in Table 3.2) have been applied to the models assuming a linear spread to give the following results:

Practising Social Workers	7% aged 55 and over
Social Work Management	11% aged 57 and over
Domiciliary Care	11% aged 55 and over
Other Social Care	11% aged 55 and over
Social Care Management	11% aged 57 and over

These percentage figures have been applied to the base population in each case (spread across five years) to provide an estimate of the number of people retiring each year.

6.2.3 Other Leavers

The Department has completed an analysis of staff leaving HPSS employment during 2001 (i.e. coming off the HPSS payroll) and the following percentage estimates were calculated for each staff group (excluding retirements):

Management	4%
Qualified Social Workers	8%
Social Care Workers	8%

However on discussion with Steering Group it was felt that the percentage turnover for Domiciliary Care and Other Social Care would be much higher. Data provided by North and West Belfast, Homefirst, South and East Belfast and Craigavon and Banbridge HSS Trusts suggests considerable variation in average turnover rates between Trusts and within the staff groups used for the models. On the basis of this information, higher rates have been applied for the Domiciliary Care and Other Social Care groups. Turnover rates for each model may not reflect the higher turnover among certain sub-groups or in certain areas but it has been necessary to use averages for this high-level review. The rates applied are as follows:

Practising Social Workers	8%
Social Work Management	4%
Domiciliary Care	20%
Other Social Care	16%
Social Care Management	4%

In the models, these figures represent the turnover of staff. It should not be assumed that all of the posts vacated by these leavers cannot be filled. However they represent the quantum of recruitment activity required as a result of the high rates of turnover associated with some of the social services staff groups.

6.2.4 Newly Qualified Social Workers & Supply into Other Groups

The projected number of newly qualified Social Workers for the next five years was provided by NISCC. The numbers include those qualifying through each of the training routes and assume full uptake of the training places on offer. The numbers are as follows:

2002/03	223
2003/04	283
2004/05	283
2005/06	295
2006/07	325

It is assumed that a proportion of Social Workers will take up positions in the voluntary sector, PBNI, Educational Welfare or other areas rather than HPSS employment over the next five years. Those transferring from HPSS employment to other areas will have been included in the turnover figures above, but it is likely that some newly qualified Social Workers will take up employment outside HPSS.

PBNI estimate that they will require six Social Workers per year over the next three years to replace those lost due to turnover. We have assumed that 2 of these positions per year could be filled by newly qualified Social Workers.

The NIGALA only recruits Social Workers with five years experience in Family and Childcare so it is assumed that none of the newly qualified Social Workers will be recruited by the Agency.

The NISCC Workforce Plan indicated that Education Welfare Service would require 24 newly qualified Social Workers between 2001/02 and 2003/04 (an average of 8 per year). We have assumed that this requirement will continue until 2006/07.

It is more difficult to predict how many newly qualified Social Workers will take up positions in the voluntary sector. Some trainees may have been seconded from voluntary sector employment to professional training and will return on completion. Others may go directly into voluntary sector employment on completion. On the basis of survey responses from 11 major voluntary sector employers of Social Workers, the NISCC Workforce Plan estimated that an average of 26 newly qualified Social Workers would be required per annum between 2001/02 and 2003/04. Consultation suggests that this is a conservative estimate and therefore, we have assumed that 35 newly qualified Social Workers will go into voluntary rather than HPSS employment per annum.

Some newly qualified Social Workers may choose not to take up a professional social work position at all, but this number is estimated to be very low and has not been accounted for in the projections below.

There is a degree of attrition associated with every training programme and in Social Work this ranged from 4 to 8.8 per cent of registrations per year between 1994/95 and 1997/98 or 6.75 per year on average. An average attrition rate of 6.75 per cent of registrations has been assumed for this model (this converts into a completion rate of 93.25 per cent).

Taking these factors into account, the following estimates of newly qualified Social Workers available to enter HPSS employment have been applied:

2002/03	163 (223 * 0.9325) – 45)
2003/04	219 (283 * 0.9325) – (45)
2004/05	219 (283 * 0.9325) – (45)
2005/06	230 (295 * 0.9325) – (45)
2006/07	258 (325 * 0.9325) – (45)

There is no defined entry/training route for the other staff groups so it is not possible to project the likely number of available recruits for these posts. While management positions will be filled by those already in the Social Work, Domiciliary and Social Care workforces, the pool of potential recruits for any additional Domiciliary and Other Social Care positions will depend on general economic conditions. In addition, new entrants into each staff group may also come from outside Northern Ireland and it has not been possible to take account of this group.

6.2.5 Unfilled Vacancies

No central information on vacancies within the statutory social services sector was available. However, Unison estimates that there is a 15% vacancy rate for Social Workers nationally and this figure was matched by the NISCC Workforce Plan for Social Workers completed in 2001. A 15% vacancy rate has thus been assumed for Social Workers.

Steering Group members considered that the vacancy rate for Management would be lower than 15% and that for Social Care and Domiciliary Workers would be higher. Data was not available to confirm this view but in order to take account of consultee's experience the following vacancy rates have been applied:

Practising Social Workers	15%
Social Work Management	5%
Domiciliary Care	20%
Other Social Care	20%
Social Care Management	5%

It is assumed that these unfilled vacancies will be filled in the first two years.

6.2.6 Working Time Directive

All of the Trusts are currently considering the impact of WTD on their staffing and rotas but very little definitive work has been undertaken on which to base an estimate of the impact of WTD on the social services workforce group. Therefore assumptions have been developed on the basis of qualitative feedback from key informants and agreed with the Steering Group.

Only Social Care staff and Social Workers working in residential settings will be affected by the Working Time Directive as they are required to provide 24 hour cover and the Steering Group agreed that a 10% increase in staff numbers would be reasonable to accommodate WTD for these groups. However, residential Social Care staff only make up a proportion of the Other Social Care group for which a model has been produced and similarly, only some of the Social Workers included in the model below are Residential Social Workers. Therefore, a conservative increase of 5% has been assumed for both these groups. On the assumption that this loss is met in the first two years, no further increase for WTD is projected.

6.2.7 Loss to Workforce Due to Work / Life Balance

Consultation suggests that there is a growing demand for alternative working patterns including term-time working and reduced weekly hours. The Social Care workforce is predominantly female and experience of consultees is that demand for work-life balance measures tends to be greater among female staff. We have assumed that employers will increasingly be expected to meet demands for revised working patterns and have therefore assumed that an additional 2% of all staff groups will wish to work part time per year in Year 1-3 and an additional 3% in Year 4-5. This is considered conservative given the increasing introduction of family friendly policies.

6.2.8 Continuing Professional Development

It is expected that policies for mandatory CPD will be introduced as registration of the Social Care Workforce with NISCC is rolled out but these requirements have not been quantified as yet and courses may change following the revisions to qualifying training. Therefore, we have assumed a loss of 5 days per person per year in Years 1-3 for Qualified Social Workers, Social Work Management and Social Care Management who will be included in the first phase of NISCC registration. In Years 4-5 this increases to 7 days per person per year. For Social Care and Domiciliary staff, it is assumed that 5 days per person per year will be required, but this loss has been phased in so that there is a loss of 1 day per person in Year 1, 2 in Year 2 and so on. A 225-day working year is assumed. It is assumed that staff in these groups are already undertaking some training so this loss is to reflect additional training requirements.

6.2.9 Other Demand Factors

This assumption relates to demand factors not already covered above including:

- current unmet demand (for example, waiting lists for domiciliary care, unallocated social work cases);
- the impact of revised acute and primary health and social services structures;
- requirements for support of newly qualified social workers in their pre-registration year;
- increased demand as a result of demographic change; and
- service developments such as the development of new children's homes, implementation of the Learning Disability Strategy, and new services in mental health, learning disability and physical disability.

While many of the demand factors discussed are likely to have a real impact on service provision and staffing requirements, it is difficult at this stage to translate proposed developments into actual workforce requirements. Therefore, a range of increases due to demand factors has been applied, namely 5%, 10% and 15% (see Section 6.6 Sensitivity Analysis).

6.3 Statutory Sector Models

Applying the above supply and demand assumptions for each statutory sector staff group results in the following estimates of staff losses and requirements for additional staff in the 5 year period from 2002 to 2007. Each table includes an estimate of the number of additional posts to be filled and comments about the potential sources of recruits for these posts and their likely availability are included below.

When reading the tables the following points should be noted:

- **All calculations are based on headcount, as opposed to whole time equivalents and population data sources are noted in each case;**
- **Supply and demand estimates in the tables are based on 2002 workforce figures;**
- **Supply and demand estimates and the resulting number of posts to be filled are presented on a year by year basis rather than a cumulative basis for clarity. It is assumed for the purpose of the models that supply and demand will be met each year but in the event that this did not occur, any shortfall would rollover into the next year. For example, if all vacancies in Year 1 are not filled the remainder can be added to those created in Year 2 and so on;**
- **The Department is committed to revisiting the models on an annual basis to verify ongoing validity of the assumptions used and to build in any additional posts created in the previous year but not met;**
- **Other Leaver figures are an indication of turnover and recruitment activity within this staff group and it should not be assumed that these positions will not be filled; and**
- **All of the models assume Other Demand Factors at 5% (see Section 6.3 for Sensitivity Analysis).**

6.3.1 Practising Social Workers

Table 6.2
Supply and Demand Estimates – Practising Social Workers

Current Workforce (2002)	**1676**				
	02/03	**03/04**	**04/05**	**05/06**	**06/07**
Supply					
Retirements	-23	-23	-23	-23	-23
Other Leavers	-134	-134	-134	-134	-134
Worklife Balance Loss	-34	-34	-34	-50	-50
Newly Qualified Social Workers	163	219	219	230	258
Total Supply	**-28**	**28**	**28**	**22**	**50**
Demand					
Unfilled Vacancies	126	126	0	0	0
Working Time Directive	42	42	0	0	0
CPD	37	37	37	52	52
Other Demand Factors (5%)	84	84	84	84	84
Total Demand	**289**	**289**	**121**	**136**	**136**
Posts to be Filled	**317**	**261**	**93**	**114**	**86**

NB - Other Leaver figures are an indication of turnover and recruitment activity within this staff group and it should not be assumed that these positions cannot be filled.

The model suggests that, if filled, increases in the number of places for training can comfortably meet the losses as a result of retirements and work-life balance measures. However, the high turnover represented by the Other Leavers figures in the table indicates the instability of the workforce and the quantum of recruitment activity required. Research into turnover patterns would help to define which staff are leaving, where they are going, whether they have left statutory social work permanently or if they might be encouraged back into the staff group.

The potential demands in terms of vacancies that cannot be filled, CPD and other service developments (modelled at 5%) exceed the flow of Social Workers into the system.

Measures to improve staff retention could decrease turnover rates, reduce vacancy levels and therefore free up newly qualified staff to meet additional service demands. However, even if such measures were successful at least 300 newly qualified Social Workers would be required to allow for retirements, worklife balance, CPD, and Working Time Directive loss and other demand factors.

6.3.2 Social Work Management

Table 6.3
Supply and Demand Estimates – Social Work Management

Current Workforce (2002)	**648**				
	02/03	**03/04**	**04/05**	**05/06**	**06/07**
Supply					
Retirements	-14	-14	-14	-14	-14
Other Leavers	-26	-26	-26	-26	-26
Worklife Balance Loss	-13	-13	-13	-19	-19
Total Supply	**-53**	**-53**	**-53**	**-60**	**-60**
Demand					
Unfilled Vacancies	16	16	0	0	0
CPD	14	14	14	20	20
Other Demand Factors (5%)	32	32	32	32	32
Total Demand	**63**	**63**	**47**	**53**	**53**
Posts to be Filled	**116**	**116**	**100**	**112**	**112**

NB - Other Leaver figures are an indication of turnover and recruitment activity within this staff group and it should not be assumed that these positions cannot be filled.

This model also suggests a considerable number of additional posts will need to be filled over the next five years, largely due to the impact of service developments (Other Demand Factors). As previously noted, it has not been possible to estimate the likely supply from which the losses due to retirements, turnover and work-life balance can be met.

6.3.3 Domiciliary Care

Table 6.4
Supply and Demand Estimates – Domiciliary Care

Current Workforce (2002)	**6864**				
	02/03	**03/04**	**04/05**	**05/06**	**06/07**
Supply					
Retirements	-137	-137	-137	-137	-137
Other Leavers	-1373	-1373	-1373	-1373	-1373
Worklife Balance Loss	-137	-137	-137	-206	-206
Total Supply	**-1647**	**-1647**	**-1647**	**-1716**	**-1716**
Demand					
Unfilled Vacancies	686	686	0	0	0
CPD	31	61	92	122	153
Other Demand Factors (5%)	343	343	343	343	343
Total Demand	**1060**	**1091**	**435**	**465**	**496**
Posts to be Filled	**2707**	**2738**	**2082**	**2181**	**2212**

NB - Other Leaver figures are an indication of turnover and recruitment activity within this staff group and it should not be assumed that these positions cannot be filled.

The very high turnover rate associated with this group means that the number of posts to be filled on a rolling basis is extremely high and losses due to retirements and work-life balance will also need to be filled. The ability to fill these posts will continue to depend on local economic conditions unless enhanced career structures for this part of the workforce can be developed to increase retention and reduce turnover. In addition the potential impact of the new demand modelled above could be significant, even assuming a 5% impact.

6.3.4 Other Social Care

Table 6.5
Supply and Demand Estimates – Other Social Care

Current Workforce (2002)	**3099**				
	02/03	**03/04**	**04/05**	**05/06**	**06/07**
Supply					
Retirements	-68	-68	-68	-68	-68
Other Leavers	-496	-496	-496	-496	-496
Worklife Balance Loss	-62	-62	-62	-93	-93
Total Supply	**-626**	**-626**	**-626**	**-657**	**-657**
Demand					
Unfilled Vacancies	310	310	0	0	0
Working Time Directive	46	46	0	0	0
CPD	14	28	41	55	69
Other Demand Factors (5%)	155	155	155	155	155
Total Demand	**525**	**539**	**196**	**210**	**224**
Posts to be Filled	**1151**	**1165**	**822**	**867**	**881**

NB - Other Leaver figures are an indication of turnover and recruitment activity within this staff group and it should not be assumed that these positions cannot be filled.

This group shows a similar pattern to the Domiciliary Care group, with high turnover and a large number of unfilled vacancies. Again, steps to improve retention will be vital to maintain this workforce, meet current demand more effectively and develop the workforce to meet future demands.

6.3.5 Social Care Management

Table 6.6
Supply and Demand Estimates – Social Care Management

Current Workforce (2002)	**506**				
	02/03	**03/04**	**04/05**	**05/06**	**06/07**
Supply					
Retirements	-11	-11	-11	-11	-11
Other Leavers	-20	-20	-20	-20	-20
Worklife Balance Loss	-10	-10	-10	-15	-15
Total Supply	**-41**	**-41**	**-41**	**-47**	**-47**
Demand					
Current Vacancies	13	13	0	0	0
CPD	11	11	11	16	16
Other Demand Factors (5%)	25	25	25	25	25
Total Demand	**49**	**49**	**37**	**41**	**41**
Posts to be Filled	**91**	**91**	**78**	**88**	**88**

NB - Other Leaver figures are an indication of turnover and recruitment activity within this staff group and it should not be assumed that these positions cannot be filled.

While the level of turnover and vacancy rates at this level are relatively low, the impact of service developments and other demands could create a substantial number of additional posts to be filled in Social Care Management.

6.4 Assumptions – Private and Voluntary Sector Model

Unfortunately sufficient data is not available to produce individual models for the various social services staff groups within the voluntary and private sector which range from practising Social Workers to casually employed Domiciliary Care Workers. The population figure for the workforce in these sectors has been estimated on a very high level basis and does not include a breakdown into different staff groups (the total population is estimated at 23,000). Therefore a single model has been developed to reflect the global impact of:

- Increased demand for social services at a rate of 5%, 10% and 15%;
- Working Time Directive – only some of this workforce will be affected by the Working Time Directive therefore a conservative estimate of a 1% increase in staff required has been assumed spread over Year 1 and Year 2;
- Loss due to Work-Life Balance – a conservative estimate of 1% has been assumed since many staff in these sectors already work on a part-time basis;

- Continuing Professional Development – the same increase is assumed for the private and voluntary sector as for statutory sector Social Care staff; that is an loss of 1% in the Year 1 rising to 5% by Year 5.

It has not been possible to factor in the following:

- Retirements – an age breakdown is not available for these sectors so losses due to retirement cannot be projected;
- Other leavers – turnover rates will be highly variable within this group;
- Entry – the number of newly qualified Social Workers entering voluntary sector employment was included in the Statutory Sector Models and it is assumed that local economic conditions will determine the availability of recruits for other posts; and
- Unfilled Vacancies - there is no data available to provide a reliable estimate of the number of unfilled vacancies in these sectors.

Clearly, more work is required in defining and quantifying this major element of the social services workforce, and in projecting future requirements more accurately. Registration of Social Care workers will significantly improve the quality and availability of information from these sectors but most of the workers here will not be registered until the later phases.

6.5 Private and Voluntary Sector Model

Applying the above assumptions to the estimated total number working in the private and voluntary sector results in the following estimate of staff losses and requirements for additional staff in the 5-year period from 2002 to 2007.

The following points should be noted:

- **All calculations are based on headcount, as opposed to whole time equivalents and population data sources are noted in each case;**
- **Supply and demand estimates in the tables are based on 2002 workforce figures;**
- **Supply and demand estimates and the resulting number of posts to be filled are presented on a year by year basis rather than a cumulative basis for clarity. It is assumed for the purpose of the models that supply and demand will be met each year but in the event that this did not occur, any shortfall would rollover into the next year. For example, if all vacancies in Year 1 are not filled the remainder can be added to those created in Year 2 and so on;**
- **The Department is committed to revisiting the models on an annual basis to verify ongoing validity of the assumptions used and to build in any additional posts created in the previous year but not met; and**
- **All of the models assume Other Demand Factors at 5% (see Section 6.2.9 for Sensitivity Analysis).**

Table 6.6
Private and Voluntary Sector Demand Estimates

Current Workforce (2002)	**23,000**				
	02/03	**03/04**	**04/05**	**05/06**	**06/07**
Demand					
Working Time Directive	115	115	0	0	0
Worklife Balance Loss	230	230	230	230	230
CPD	102	204	307	409	511
Other Demand Factors (5%)	1150	1150	1150	1150	1150
Total Demand	**1482**	**1584**	**1687**	**1789**	**1891**

The demand estimates above are global rather than providing detailed projections for particular staff groups. However, they suggest that in common with the statutory social services groups, the potential number of additional posts to be filled in the voluntary and private social services is very high if the demand factors considered come into effect.

6.6 Sensitivity Analysis

Tables 6.2 to 6.6 above assume that 'Other Demand Factors' result in a 5 per cent increase in staff requirements. If this factor is increased to 10 or 15 per cent the impact on workforce requirements is potentially huge. The total number of posts to be filled for each staff group in the statutory sector and the total demand for the Private and Voluntary sector staff group under each of these scenarios is shown below.

Table 6.7
Impact of Increased Demand on Number of Posts to be Filled

Year	02/03	03/04	04/05	05/06	06/07
10% Impact	**Number of Posts to be Filled**				
Practising Social Workers	401	345	177	198	170
Social Work Management	149	149	132	145	145
Domiciliary Care	2776	2807	2151	2113	2143
Other Social Care (excl. Domiciliary Care)	1306	1320	977	1022	1036
Social Care Management	116	116	103	113	113
15% Impact					
Practising Social Workers	484	428	261	281	253
Social Work Management	181	181	165	177	177
Domiciliary Care	3119	3150	2494	2456	2486
Other Social Care (excl. Domiciliary Care)	1461	1475	1132	1177	1191
Social Care Management	141	141	129	138	138

As noted above, the Department will re-visit the models annually to assess the validity of assumptions and make any necessary changes.

7. CONCLUSIONS AND RECOMMENDATIONS

The qualitative analysis and detailed data modelling undertaken for this review leads to the conclusion that there are difficulties in recruiting and retaining social services workers across the statutory, private and voluntary sectors in Northern Ireland to meet current service demands. In some areas, such as Domiciliary Care, Family and Childcare Social Work and Residential Care, these difficulties are particularly acute. The key issues associated with recruitment and retention difficulties are:

- Social Work:
  - workload and demands flowing from legislative and procedural change;
  - levels of personal responsibility and associated stress and absenteeism;
  - perceived low professional esteem;
  - career structures, salaries and opportunities for development and progression within practice; and
  - salary levels in comparison with similar professions, particularly with regard to more experienced professionals.
- Social Care:
  - low rates of pay and poor or inconsistent terms and conditions of employment;
  - instability of employment in voluntary sector and for those on minimum or zero hours contracts;
  - perceived poor esteem for social care work;
  - complex and difficult workload with high levels of personal responsibility;
  - limited opportunities for training and development;
  - limited and variable opportunities for career progression; and
  - in the face of the above, competition from employers in service and retail sectors.

The implementation of current policies on how health and social care should be delivered will further increase the demand for community-based services and social services resources. Without action to improve the recruitment and retention pattern in the sector, it will be difficult to meet service demands for the future. Some key steps have been taken at a regional level - the review of Social Work training, the establishment of the NISCC, the forthcoming programme of registration and discussions around Agenda for Change – and at an individual employer level – aggressive recruitment policies and improved training and development opportunities. On the basis of this review further recommendations relating to Social Work and Social Care have been made. Recommendations relate to increasing the

number of Social Work trainee places and introducing measures to improve retention across the social services staff groups. Recommendations are set out below.

7.1 Social Work Trainees

It is vital that the projected number of Social Work trainee places is filled, and if possible increased to ensure that the number of people entering Social Work training is sufficient to meet future demands on the service. The projections above suggest that at least 300 Social Work training places is required to meet additional demands placed on the service as a result of service developments, Working Time Directive, CPD and increased demand for worklife balance policies. The aim should be to increase the profile of Social Work and increase public awareness, particularly amongst school leavers, in order to attract a greater proportion into the relevant higher education courses.

The recent advertising campaign for Social Work reportedly had a significant impact on expressions of interest in Social Work and Social Care careers. However, such interest must be converted into actual trainees by providing a range of attractive training and career options across the Social Work and Social Care continuum. The current review of Social Work student finance should consider the financial hardship faced by many students (in every area not just Social Work) and the range of financial incentives that other professions have offered students to encourage uptake of the new degree and make the career more attractive.

Following the review and approval of qualifications for other Social Care groups by NISCC, similar plans should be developed to encourage people to choose a career in Social Care and provide a range of attractive training and qualification options.

7.2 Positive Publicity for Social Care

As well as helping to attract new trainees into the social care sector, positive publicity can also help to improve the public's perception of social care careers and help retain existing staff. Employers should consider raising the profile of services and successes at a community level through local publicity.

7.3 Career Structures

The work of the NISCC in reviewing the career structure and roles:qualifications mapping for the entire social services sector is to be continued and, on the basis of its findings, Social Work and social care career structures should be revised to ensure that a clear continuum exists through which workers can progress on the basis of experience, expertise, personal/professional development and level of responsibility. This will be key to reducing the very high turnover rates among many of the social services staff groups.

The Department should provide guidance to employers on the use of the Senior and Advanced Practitioner posts and their place in the Social Work career structure. Increased use of alternative posts to support Social Work activity and grade mix should also be considered.

7.4 Supporting CPD

Employers already find it difficult to meet the demand for Social Work practice placements and demand for trainee supervision and assessment is set to increase with the proposed increased intake of students and the pre-registration year. In addition, consultation shows that opportunities for CPD are limited, either because employers do not offer training opportunities or because workload pressures are such that employees cannot be released to take them up.

With registration, it is likely that the requirement for CPD will be more strictly controlled and the many Social Care staff without appropriate qualifications will be required to obtain them for full registration.

It is recommended that employers be supported to ensure that CPD can be accessed and targets for qualification and ongoing development of the social services workforce can be realised.

7.5 Professional Esteem

The development by NISCC of state registration and recognised career paths for this workforce will in time contribute to greater professional esteem for social services careers. Other opportunities to help build professional identity at a regional level should be explored. These may include the promotion of existing professional groups such as the British Association of Social Workers or creation of new forums for discussion and debate.

7.6 Workload Monitoring

Staff side organisations and individual employers are currently exploring the development of workload benchmarking for social services. The Department should consider the advantages and disadvantages of setting workload boundaries in the context of service quality and staff welfare objectives.

7.7 Work-life Balance

Consultation suggests that while the number of formal requests for alternative working patterns has not increased substantially, there is a latent demand for such opportunities. Provision of work-life balance measures is now generally accepted as an essential feature of attractive careers and therefore, where possible, Social Services employers should be supported to facilitate reasonable work-life balance measures.

7.8 Workforce Data

No central data source for this workforce is available to assist in workforce planning. Further work needs to be done to enable quantification and definition of the social services workforce. This should include reviewing and providing guidance to Trusts on the categorisation of social services staff on Trust payroll and personnel systems. In addition, consideration should be given to developing some form of central return for voluntary and private sector employers in advance of registration with the NISCC.

7.9 Further Workforce Planning

This workforce planning review took a sector wide approach and due to data limitations could not provide detail on individual social services staff groups or service areas. Further workforce planning should be undertaken at a service area, sector and professional group basis to refine the supply and demand projections developed for this review.

APPENDIX A
COMPOSITION OF STEERING GROUP

APPENDIX A – Steering Group Members

David Bingham, Director of Human Resources, DHSSPS
Joyce Cairns, Deputy Director Human Resources, DHSSPS
Eleanor Simpson, Inspector, Social Services Inspectorate
Brendan Johnson, Chief Executive NI Social Care Council
Brian Dornan, Director of Social Services, SHSSB
Craig Emerson, Representative Private residential sector
Eamonn Molloy, Director of Human Resources, North & West Belfast HSS Trust
Eileen Thompson, Deputy Director Cedar Foundation
Hugh Connor, Executive Director of Social Work (S&E Belfast)
Jan Maconachie, Assistant Director Training, Homefirst HSS Trust
Cecil Worthington, Ulster Community and Hospitals HSS Trust
Joan Ross, Principal Social Worker Training, WHSSB
Kieran Donaghy, Director of HR Craigavon & Banbridge HSS Trust
Miss Caroline Ferguson, Independent Sector (voluntary) day care provider, Fermanagh New Horizons
Mrs. Mary Jones, Proprietor, Dunmary House
Rosemary Simpson, Acting Director Community Services, Homefirst
Una Magee, Learning and Development Manager, Barnardos
Vivienne Walker, Director of Human Resources, South & East Belfast Trust
Gerry Largey, NIPSA
Terry Thomas, NIPSA

APPENDIX B
KEY INFORMANT INTERVIEWS

KEY INFORMANT INTERVIEWS

Name	Organisation
Eleanor Simpson	SSI
Jan Maconachie	Homefirst HSS Trust
David Vance	EHSSB
Joan Ross	Westcare
Ian Montgomery	SHSSB
Moore McGaghey	Northern Ireland Association for Mental Health
Eileen Thompson	Cedar Foundation
Finbar Fitzpatrick	Cedar Foundation
Jim Loughrey	Causeway HSS Trust
Brian Dornan	SHSSB
Caroline Ferguson	Fermanagh New Horizons
Una Magee	Barnardos
Rosemary Simpson	Homefirst HSS Trust
Mary Jones	Dunmary House
Brendan Johnston	NISCC
Eamonn Molloy	N&W Belfast HSS Trust
Hugh Connor	S&E Belfast HSS Trust
Paul Brown	NISCC
Christine Smyth	NISCC
Graham Kelly	PBNI
Mary McColgan	University of Ulster
Mary Anderson	University of Ulster
Maxine Devenny	Belfast Education and Library Board
Declan McAlester	NIGALA

APPENDIX C
FOCUS GROUPS

FOCUS GROUPS

Sector	Client Group	Staff Group	Board Area	Venue
Statutory	Childcare, fieldwork, child protection	Social workers - non-managers	South	Gilford
Statutory	Childcare, residential	Social Workers and Deputy Heads of Home	North	Antrim
Voluntary	Childcare, fieldwork, specialist (family support etc.)	Social Workers, Care Workers, HR/Training Managers	East	Belfast
Private & Voluntary	Adult, residential, daycare	Domiciliary and Daycare Workers - non-managers	East	Belfast
Statutory	Adult, domiciliary care	Domiciliary Care Workers - non-managers	North	Antrim
Private & Voluntary	Adult, residential/daycare, MH & LD	Domiciliary and Daycare Workers - non-managers	West	Enniskillen
Statutory	Adult, fieldwork	Social Workers, Senior Social Workers & APSWs	West	Derry

Department of Health, Social Services and Public Safety

An Roinn Sláinte, Seirbhísí Sóisialta agus Sábháilteachta Poiblí

Review of the Physiotherapy Workforce

Final Report

November 2002

CONTENTS

EXECUTIVE SUMMARY

In September 2001, the Department of Health, Social Services and Public Safety (DHSSPS) commenced a series of uni-professional workforce reviews, which, over the period of one year, would cover the 15 main clinical professions within the Health and Personal Social Services (HPSS). There were a number of drivers behind the initiative and these included the publication of the Hayes Report on the future of Acute Hospital Services, and the DHSSPS Consultation document 'The Employer of Choice'. Both documents highlighted the urgent need to put structures in place that will support workforce planning within, and across, all of the HPSS Professions. While it was determined that the reviews would, at this stage, be taken forward on a uni-professional basis, the information and recommendations from this work would provide an important baseline in terms of developing workforce planning within HPSS across service sectors and professions.

Section 1: Introduction

This report sets out a comprehensive review of the HPSS physiotherapy profession. The review was undertaken during the period December 2001 – April 2002 and was co-ordinated by a Project Group, which comprised of representatives from the DHSSPS, service providers, education, commissioners, private sector and staff side. The content of the report includes background details (including terms of reference), the project methodology, a detailed profile of the current qualified physiotherapy workforce, a projection of the supply and demand for Physiotherapists within the HPSS workforce over the 5-year period 2002 – 2006, and recommendations to address issues arising from the review.

Section 2: Background

The principal focus of the review was to provide the DHSSPS, service providers and commissioners, with information concerning recruitment and retention issues within the Physiotherapy workforce, and a projection of supply and demand within the profession. This information is vital to assist the Department in developing strategies that will ensure that the correct numbers of therapists are trained, in place, and working effectively to offer the maximum benefit to patients and clients.

In considering the above, it is also important to reflect on the current health policy context for the delivery of health and social care services in the future. A number of strategic documents have been reviewed and highlight the focus now being given to the delivery of high quality accessible care, with the development of the HPSS workforce being key to achieving this.

Specifically, in relation to physiotherapy, it is evident that there have been difficulties, both across the UK, and within ROI, in relation to the recruitment and retention of staff. Vacancy rates reported in England are around 10% and statistics from the Council for the Professions Supplementary to Medicine (CPSM) also indicate that one in three therapists joining the register have trained abroad. Frustrations voiced by the workforce include increasing workloads, lack of time for patient care, lack of protected time for continuing professional development, and disillusionment at limited opportunities for career progression. There is increasing demand for therapists as a total group, evidenced by the specific reference to the profession in the NHS document 'Investment and Reform for the NHS staff'. The paper

outlines that Physiotherapists are very much in demand for the implementation of the NHS plan, and suggests that an increase of 59% is required in the workforce by 2009 (England and Wales).

The shortage of Physiotherapists has also been highlighted in the ROI through the publication of the 'Bacon Report'. Vacancy rates of around 14% are quoted in the report, and it concluded that a major expansion is required in staffing over the next fifteen years to meet projected service demands.

Increases in demand for services are due to a wide range of factors such as, ageing population, government reforms including care in the community, the development of multi-disciplinary services and the drive to improve cancer and other services.

These increases in demand, coupled with the current difficulties in recruitment and retention within the profession, emphasise the urgent to need develop effective workforce planning arrangements.

Section 3: Terms of Reference and Methodology

The terms of reference for the review were as follows:

- To provide a profile of the current qualified Physiotherapy workforce.
- To provide an analysis of current and future recruitment and retention issues, including pay, career structure, working arrangements
- To provide a prediction of the supply of, and demand for, qualified Physiotherapists over the next 5 years.

The methodology applied to achieve the above comprised of a number of elements, including, literature review, analysis of current workforce data, questionnaire to service managers, interviews with key informants and focus groups.

One of the main outcomes of the review is to assist the Department in reviewing the number of student places that need to be commissioned from education locally to meet future service demands.

Section 4: Findings

Section 4 outlines the main findings and trends in relation to the current HPSS Physiotherapist workforce profile. The analysis of data indicates that there are 687 Physiotherapists in the HPSS, with 92% of the workforce being female. The workforce is relatively young, with 65% under the age of 40 years. There has only been a slight increase in part-time working within the profession during the last three years, with 39% of staff working part-time in 2001, compared to 37% in 1998. A review of the skill mix within the profession indicates that the majority of posts (49%) are graded at the highest clinical grade, Senior 1 (over half of posts at this grade are part-time and are community based). Only 15% of posts are at the new graduate / entry grade (Basic Grade) and 14% of posts are at the management grades. All of the Physiotherapy

providers within the HPSS in NI employ support staff (i.e. physiotherapy helpers). A total of 127 helper staff were recorded in post in December 2001.

A review of vacancies at December 2001 indicated a 6% vacancy rate across the service in NI. This equates to 42 posts which managers are having difficulty filling or are unfilled.

A questionnaire forwarded to managers provided details on the recruitment of staff that have graduated outside NI, or had been working outside NI at the time of recruitment. The data indicated that an estimated 17 Physiotherapists join the NI HPSS workforce each year through these routes. A review of information on leavers (other than for reason of retirement) also indicated that an estimated 4% of the workforce is lost due, for example, to family reasons, individuals taking up posts in the private sector, or moving to work outside NI. This information informed the supply assumptions detailed in the workforce projections contained in the report.

Sections 5 & 6: Key Findings In Interviews and Focus Groups – Supply Issues and Demand Issues

Nineteen key informant interviews and eight focus groups were carried out to gather qualitative data on issues impacting on the recruitment and retention of Physiotherapists within the HPSS workforce. The detailed findings are contained within sections 5 and 6 of the report.

In relation to the supply of therapists, the following issues were highlighted:

- Students: The University of Ulster provided details on student numbers and first destination survey results of graduates over the past three years. On average, only 58% of students are taking up a position within the HPSS in NI after graduation. Issues identified that are attracting new graduates to posts outside NI include: students being offered incentives to take up posts elsewhere, better choice of posts elsewhere, opportunity for travel on graduation. In addition to the under graduate course, a 2 year Masters Degree programme is available at the University of Ulster from June 2002. The course will eventually provide up to 24 places per annum (in addition to the 65 undergraduate places), however, local students (with appropriate primary degrees) are at present unable to access funding for the course. This means that, if the local funding arrangements remain unchanged, the majority of participants are likely to come from outside NI and are therefore less likely to be available for the HPSS after their training is complete. Out of 15 students commencing the course in June 2002, only 4 are from NI. The majority (8) are from the ROI, with the remaining from overseas countries.
- Recruitment: A significant number of Trusts are finding some difficulty in recruiting to posts, particularly in the specialist higher clinical grade (Senior I Grade). The geographical position of some Trusts is a problem, (e.g. within some rural areas), as is attracting staff with the right skills for some specialist areas (such as learning disability and paediatrics). In addition, some Trusts appear to be more attractive than others to staff at particular points in their career (e.g. junior grade staff are more attracted to posts in the Greater Belfast area, particularly those within the larger specialist centres).
- Temporary Posts / Bank / Agency: Many Trusts are finding it extremely difficult to recruit to temporary posts. A number have, however, been able to establish a bank with a small number of staff registered.

- Retention: A significant number of Trusts reported retention of basic grades as an issue, with the majority of staff leaving to obtain promotion. Some Trusts have particular difficulties in retaining junior staff where there are limited Senior II posts within their workforce structure.
- Family friendly policies: With a female dominated workforce, all Trusts are experiencing increasing requests for flexible working and career breaks. This will have to be taken into account for future service models, such as extended 7 day working arrangements.
- Private / Voluntary Sector: There are around 80 NI Physiotherapists registered with the Organisation of Chartered Physiotherapists in Private Practice. Almost half of all Trusts interviewed through the review have experienced staff leaving to work in the private sector. While the review was not able to quantify the number of Physiotherapists who work within the voluntary sector, many Trusts reported that they work closely with a range of organisations, such as the MS Society and NI Chest Heart and Stroke Association.
- Working Hours, Terms and Conditions: The most common area of concern quoted within the review related to the payments for the on-call payment system. Many respondents expressed the opinion that payment for on-call working was extremely poor. This is particularly in view of the level of responsibility that staff carry when on call, which usually entails covering a wide range of specialty areas. Another area of dissatisfaction was the use of discretionary points as a means of extending the pay scale.
- Working Time Directive: Respondents indicated that this will have an impact on physiotherapy staff working in a number of areas, however, it has yet to be fully quantified.
- Career Progression: Many respondents indicated that lack of opportunities for career progression was a key area of concern amongst staff. Many expressed concern at the limited number of Senior II posts (resulting in staff having to remain at basic grade level for longer than desired), and most indicated that the introduction of competency based progression from basic grade to Senior II would be highly desirable. The other main concern was the lack of opportunity for clinical career progression beyond Senior I, with the only promotional route into management. For many this latter option is not attractive. The introduction of discretionary points has made no impact on this issue.
- Continuing Professional Development and Research: Lack of support in terms of time and funding for CPD was highlighted as a major issue of concern. Staff also indicated that local provision of relevant specialist courses could be improved, with Physiotherapists on occasion having to travel to England to access some areas of training required. Many respondents were strongly of the view that physiotherapy staff are frequently having to give up free time during weekends and evenings in order to access CPD opportunities. While these arrangements are sometimes necessary to enable equipment to be available for patient treatments during the week, a major area of discontent is that staff attending weekends and evening training are not getting any time off in lieu. It was widely agreed by respondents that there is an urgent need for a regional approach to assessing, prioritising and resourcing CPD for Physiotherapists and for providing staff with the protected time to participate in CPD and research activities.

The following areas of demand were highlighted through the interviews and focus groups.

- Current services: Increasing demands are being experienced from across the full range of acute and community services.

- Administration: All respondents indicated that paperwork and general administration was taking up a considerable amount of therapists' time, to the detriment of time spent with patients and clients. Few feel that they have access to adequate administrative support or IT, which would enable them to carry out their clinical work more efficiently.
- Skillmix: All Trusts commented positively on the contribution that support staff make to service delivery. The majority indicated that there was scope for developing the role of support staff, but this would require adequate resourcing, both for training, and for enhancing the current pay structure.
- Clinical Placements: While Trusts commented positively on the benefits of providing clinical placements, many indicated that they are finding it increasingly difficult to respond to student requirements. Reasons cited for this included: lack of sufficient senior staff to supervise students (this is compounded by the fact that over half of Senior 1 posts are part-time), lack of dedicated clinical tutor posts, poor accommodation arrangements (which make it difficult to find space for students) and poor training allowances that do not attract qualified staff to supervise.
- Increasing patient expectations: Respondents commented that patients are now more 'vocal' about their 'right' to a service. As a consequence staff have to spend increasing amounts of time dealing with enquiries or complaints.
- Role extension: The development of the physiotherapy role has been welcomed as a positive move for the profession. The drivers for development include changes to the hours of junior doctors, and greater discretion for non-medical staff to expand their scope of practice. Areas where this has occurred include orthopaedics, Rheumatology, and A & E. Respondents did however indicate a level of frustration at the slow progress with the establishment of specialist posts (i.e. Clinical Specialist, Extended Scope Practitioner, physiotherapy Consultant posts.
- Other areas of service development which will require the development of the physiotherapy role include brain injury and cancer services.

Section 7: Supply and Demand Projections

Section 7 of the report provides details on the estimated supply and demand projections of Physiotherapists within the HPSS over the period 2002 – 2006. The supply figures have been developed from the data gathered and from discussions with the project group members. The figures include: projected numbers of new graduates joining the HPSS (at current levels), individuals being recruited from outside NI, staff leaving the HPSS due to retirement and other reasons, and the impact of family friendly policies. Based on the assumptions utilised, the data indicates that there will be less than 1% increase in the supply of therapists to the HPSS over the next five years.

The demand for additional Physiotherapists has been considered under three headings;

1. ***Agreed policy context and resource approved / identified:*** This refers to service developments that have been agreed within the current HPSS policy framework with resources identified, or are likely to be approved over the course of the 5 year workforce plan. This includes additional posts within the Cancer Centres, Regional Brain Injury Unit, Local Health and Social Care Groups, and as a result of funding under Priorities for Action.

2. ***Future policy context that may potentially attract investment:*** This refers to service developments that have been identified via key informant interviews and the project group that may potentially be supported over the next five years, although resources have yet to be identified. Areas included are additional investment in multidisciplinary support services in the community as a result of the community care review. Also, further support for posts in the areas of brain injury (community infrastructure), palliative care, meeting demands within paediatrics, addressing resources for continuing professional development and the development of the clinical specialist, and advanced practitioner and consultant roles. Meeting the requirements for the working time directive would also be included under this heading.

3. ***Unmet need:*** This refers to additional areas of unmet need, identified via the key informant interviews and project group. It is acknowledged that there is currently no policy context or resource identified to meet the demand areas identified. Some of the areas included in this category are additional support for orthopaedics, cardiac / stroke rehabilitation, intensive care, women's health, disability services, (in particular services for young adults with learning disabilities or physical disabilities), and mental health.

To provide an indicator of the supply of Physiotherapists against demand over the next five years, projections have been made based on the impact of different demand scenarios (i.e. 4%, 13% or 25% increase in staffing). The requirement to fill all current vacancies (estimated at 42) has also been included in the projections

The impact of these levels of demand, provided the current assumptions in relation to the supply of staff remain unchanged over the period 2002 – 2006 would be as follows:

- At 4% growth (from Heading 1, i.e. agreed resource): There will be an estimated shortfall of 66 staff after 5 years.
- At 13% growth: There will be an estimated shortfall of 129 staff after 5 years.
- At 25% growth: There will be an estimated shortfall of 209 staff after 5 years.

In terms of areas that might impact on this shortfall:

- If more graduates are recruited to the HPSS workforce (e.g. 80% compared with the current 58%), an additional 67 therapists would be available.
- If funding for the Masters Degree programme was made available to NI graduates, a higher percentage of local students would be recruited and likely available for the HPSS workforce on graduation.
- If a reduction in leavers (for reasons other than retirement) was achieved (e.g. by 30%) a further 45 staff would remain in the workforce.
- If the number of graduate places at the University of Ulster was increased by 5, a further 3 therapists per annum would be available to the HPSS workforce from 2006.

The figures confirm however that there is projected to be a significant shortfall in the HPSS physiotherapy workforce over the next five years.

Section 8:

A number of recommendations are outlined below that are aimed at addressing the shortage in the workforce identified.

Increase the number of students taking up posts in NI after graduation – Target 80% of graduates:

- It is recommended that Trusts should project their workforce requirements for the year ahead and recruit from final year University of Ulster students, commencing the process early (prior to graduations) in November / December. This will mean Trusts may also have to review their skill mix and consider recruiting to additional junior grade posts in order to secure more qualified Physiotherapists within the workforce. (It is acknowledged that a number of Trusts have already put in place early recruitment procedures in an attempt to recruit graduates). The funding implications of this will require further discussion.
- Trusts should review their skill mix to explore how Senior II posts may be developed, to provide career progression opportunities for basic grade staff and to ensure staff obtain the skills required for Senior I level posts. The funding for additional Senior II posts is acknowledged as an issue in achieving the above.
- A follow up to the focus group work with 4th-year University of Ulster students should be undertaken to provide further information about how to attract more graduates into the HPSS.

Clinical Placements:

- A profile of clinical placements within all Trusts should be collated to review current levels of provision. Support and funding required within Trusts to facilitate clinical placements should also be reviewed (i.e. reviewing the need for additional clinical tutor posts).
- Accommodation planning within Trusts should take account of the need to provide adequate space to facilitate students on placement.

Additional Student Places:

- The Department should review if discussions should be taken forward with the University of Ulster to increase the number of undergraduate places.
- The Department should review if funding should be made available for appropriate NI graduates to gain access to the fast track Masters Degree Course at the University of Ulster.

Attracting other qualified Physiotherapists into the workforce:

- The Department should explore the potential for a return to practice initiative by assessing levels of interest through local advertisement.
- The Department should seek to provide information on opportunities within NI for local students who are currently studying in GB. This should be co-ordinated regionally.

Retention of current workforce:

- Further work is required to identify initiatives that will lead to the retention of therapists within the workforce. This will include incentives to encourage staff , who may be

considering retirement, to continue to contribute at some level to HPSS physiotherapy services. There was also a strong view from the project group that the introduction of initiatives such as link grade progression would have a positive impact on retention of staff.

- The Department should take forward the development of the physiotherapy clinical specialist and consultant roles to acknowledge high levels of clinical expertise within the profession and remunerate accordingly.
- The Department should review how Trusts are using mechanisms, such as the Enabling Agreement, in addressing recruitment and retention issues amongst the physiotherapy workforce.

Continuing Professional Development Opportunities

- The Department should take forward initiatives to enhance the continuing professional development opportunities for Physiotherapists. This will include developing a regional strategy to identify training and development needs, identifying protected time for CPD, and investment in specialist courses to be provided locally. The development of a regional centre for CPD for PAMS should be taken forward, which meets the needs of the physiotherapy profession.

Unqualified / support staff

- Work needs to be taken forward to support the development of the role of physiotherapy assistants. This includes regional support to make provision for opportunities to develop the skills of assistants to NVQ level 3 and local providers considering how the role of unqualified staff can be developed to assist in addressing demands within the current service.
- The provision of administrative and IT support to therapists needs to be reviewed further by employers, given the poor levels reported by participants in the workforce review.

Further Review of the Workforce

- The project group should be convened on an annual basis to review the supply and demand assumptions and to update the workforce plan for Physiotherapists.
- Further work needs to be commissioned by the Department to review in more detail the impact of family friendly policies / career breaks on the workforce.

Section 9: Conclusion

The physiotherapy workforce review presented can only be viewed as the starting point, or a baseline for further work to be taken forward. This includes the development of an action plan to take forward the recommendations outlined above and further discussion to consider the implications of the workforce trends presented. The models presented in the report will need updated and refined on a regular basis to continue to inform decision-making and priorities concerning the investment in the HPSS physiotherapy workforce over the next years.

1. INTRODUCTION

Chartered Physiotherapists are involved in the diagnosis and management of people with a broad range of physical problems. Primarily they use manipulation, therapeutic handling, exercise and electro-therapeutic modalities. Their assessment and evaluation of need, or potential need, takes into account variations in health status in order to promote, maximise, and restore the individuals physical, psychological and social well being (13). Physiotherapists also have a key role in preventing admission, promoting early discharge and maintaining people in the community. They provide services across the acute, community and education sectors within HPSS.

This report outlines a comprehensive review of the Physiotherapy workforce within Health and Personal Social Services in N. Ireland. The review was undertaken during the period December 2001- April 2002 and was co-ordinated by a Project Group, which comprised of representatives of the DHSSPS, HPSS commissioners and providers, education and staff side (Appendix II– Membership). The report is presented by the Project Group and outlines:

- The background to the project;
- The project methodology and terms of reference;
- A detailed profile of the HPSS physiotherapy workforce, recruitment and retention issues identified in relation to the workforce, and a projection of the supply and demand for therapists over the five year period 2002 – 2006.

The report concludes with a list of recommendations from the Project Group which seek to contribute to addressing the current and future workforce issues within the N.I. physiotherapy workforce.

2. BACKGROUND

The principal focus of the review has been to provide a profile of the current physiotherapy workforce in N.I. and to investigate, through a range of survey tools, key issues and factors relating the supply of, and demand for, therapists over the period 2002 – 2006. The report culminates in highlighting key recommendations, which will assist the Department in developing strategies that will ensure the correct number of Physiotherapists are in place, working in the most effective way, to offer maximum benefit to patients and clients. The development of such strategies must also consider physiotherapy services within the context of national, regional and local strategies and priorities for healthcare services as a whole. A brief review of some of the relevant policy issues are outlined below.

2.1 Health Policy Context

The overall aim of the Department of Health, Social Services and Public Safety is to improve the health and well-being of the people of Northern Ireland. It seeks to achieve this in ways which:

- are fair and equitable, targeting resources towards those in greatest need;
- listen to the views of users, carers and the public;
- continuously improve the quality and clinical excellence of services;
- stimulate and support the formation of partnerships across all sectors to promote and improve health and well-being (1).

It must also seek to ensure the effectiveness of service provision, i.e. to secure the greatest possible health gain from available resources. All HPSS employees have a central role in achieving this overall clinical effectiveness and it is essential to develop strategies that can ensure the correct numbers of these skilled employees are in place, working on an integrated basis and in the most effective way, offering maximum benefit to the health care team and patients and clients. This has been further reinforced by the Report produced by the Acute Hospitals Review Group (May 2001) (2) which highlights the urgent need for improved workforce planning arrangements within the HPSS including a robust assessment of service needs and the skills and staff required to deliver these services efficiently and effectively. The report also highlighted that there is the need to build up adequate contingency or even over supply of adequately prepared professionals so as to ensure that there is no repeat of the difficulties of the past.

2.2 Great Britain and Northern Ireland Context

The current strategic focus for health and social services was first detailed in 'The New NHS - Modern and Dependable' (3) which sets out the Government's vision for the National Health Service (NHS) in England. The Government plans for NHS modernisation are intended to ensure a high quality national service that is clinically sound, cost-effective and equitable. The NHS white paper and subsequent quality consultation document (4) identified requirements for consistent, high quality care throughout the health service and all health organisations, including primary care. This will mean that all areas of health services deliver care to the patient in the most timely and cost effective ways possible.

The Northern Ireland Executive, in its Programme for Government 2001-2004 (5), identified "Working for a Healthier people" as one of its five priorities, and has stated that "we will work to reduce waiting lists, implementing new management arrangements, and recruiting additional front line staff".

The Programme focuses specifically on the following:

- reducing preventable diseases, ill health and health inequalities;
- ensuring that the environment supports healthy living and that recreational facilities are improved;
- modernising and improving hospital and primary care services to ensure more timely and effective care and treatment for patients;
- enabling those who suffer from disability, chronic, mental or terminal illness to live normal lives;
- promoting the health and social development of children.

The Programme recognises that everyone has a right to timely, quality care, based on clinical and social care need, and the system must be able to respond to assessed individual need. The Programme also commits the Executive to addressing current workforce shortages within the HPSS.

Priorities for Action (6) details the DHSSPS planning priorities for 2002/2003, in the context of the Programme for Government. These include:

- improving access to hospital and community services, particularly reducing waiting lists;
- tackling shortages of skilled staff, particularly in hard pressed specialised areas. This includes not only the increases in the supply of qualified staff but also measures to improve recruitment and retention of staff within HPSS;
- to develop linkages and co-ordination between the primary, secondary and community care sectors;
- to improve the community infrastructure to support the long-term care of vulnerable groups in the most appropriate community setting.

The development of local physiotherapy services is a key element in the achievement of a number of targets and objectives set out in the document, which outline how the Department expects the HPSS to deliver to the Minister's priorities.

2.3 Secondary Care

In the provision of secondary services, the Acute Hospital Review Group Report 2001(2) is the most recent document to address the structure of the HPSS as a whole in Northern Ireland. The Report's key recommendations include:

- Giving primary care a more prominent role in service delivery and expanding the research base in primary care;
- Re-organising hospital services and treating them as a series of systems, rather than stand alone institutions;
- Provide acute hospital services that are consultant delivered rather than consultant led;
- Primary care organisations given the responsibility for the commissioning of community services and non-regional hospital services in the context of the strategic plan.

While not providing specific comments concerning physiotherapy services, the report does suggest that, in line with trends announced for the NHS in England, NI will require an additional 1000 therapists and other health professionals by 2010. It also emphasises the urgent need to undertake a major workforce planning exercise that covers the whole of HPSS.

2.4 Primary Care & Quality

Building the Way Forward in Primary Care (8) outlines new ways for health professionals to be involved in the delivery of HPSS services. The recent summary of the consultation on the future of primary care (9), details that there is general agreement on the need for the development of primary care to provide a quality service to meet the growing demands on this sector. The arrangements, announced by the Minister on 16th October 2001, (10) outline proposals to set up local health and social care groups, with primary care professionals working in partnership with Health and Social Services Boards, Trusts and others, in the planning, commissioning and delivery of services for the communities they service. The new arrangements will undoubtedly facilitate service development for PAMS and other professions, in that 'they will help stimulate innovation in the delivery of service at a local level' (10).

The recent Consultation Paper, "Best Practice - Best Care" (11), published in April 2001, focuses on the three interlocking strands of setting standards (improving services and practice), delivering services (ensuring local accountability), and improving the monitoring and regulation of the services. The document sets out the Departments commitment to securing a more responsive, caring public service, raising the quality of the HPSS and tackling under-performance

The DHSSPS position paper 'Primary Care – Professions Allied to Medicine' (12), has been produced to help inform key stakeholders of the contribution that the Professions Allied to Medicine currently make, and their potentially greater role in ensuring high quality services in primary care. It endorses the priority given to breaking down traditional boundaries so that all care professionals use their skills in the most appropriate way to treat and care for people, the development of new and innovative models of service delivery, and the support of emerging new professional roles. However, in order for this to happen, it is argued that :

- it must be recognised that PAMS are key contributors across HPSS services, including health promotion and prevention;
- they must be given equal status at all levels to enable them to become full partners within primary care settings, including opportunities, support and resources;
- there must be sustained investment in continuing the development and training of PAMS to take on new roles, and to maintain and further develop skills;
- PAMS must be given equal access at all levels to opportunities and systems to facilitate their research and development.

The Regional Strategic Framework for PAMS in N.I. (13) also outlines that:

- there must be greater representation of the Professions Allied to Medicine to influence the decision making process in strategic planning, policy formulation, commissioning and in the general management of the HPSS.,

2.5 Public Health

In the UK, public health strategies have recently been produced for Scotland (Working Together for a Healthier Scotland 1998) (14), Wales (Better Health-Better Wales 1998) (15) and England (Saving Lives: Our Healthier Nation 1999) (16).

In Northern Ireland, these key public health issues are outlined in the strategic document "Well Into 2000: A positive agenda for Health and Social Well-being"(17) and the more recent public health strategy document "Investing for Health"(18). The proposals recognise that our health is determined by the social, economic and cultural environment, and encourage professions to work with the community to promote health and well-being, rather than focus on the treatment of ill health. It is clear that Physiotherapists will have a part to play in delivering the objectives and targets that will be outlined in final public health strategy.

2.6 The Importance of the Workforce

The underlying strategic theme of effective and co-ordinated workforce planning is documented in a number of NHS documents in England and Wales (19,20). In the consultation paper "A Health Service of all Talents: developing the NHS workforce" (2000) (21) the Department of Health acknowledge problems with the current workforce development and planning. The paper made a range of recommendations including improving training education and regulation, increasing staff numbers and changing career pathways whilst achieving better integration between workforce, service and financial planning. A National Workforce Development Unit, Care Group Workforce Teams and a Workforce Numbers Advisory Board will be established to implement the recommendations.

The consultation paper "Acute Hospital Services Review" (2), published in May 2001, reinforces the fact that over 70% of HPSS expenditure is on staffing, so it is obviously critical for employers to have in place a planning system to help managers set appropriate establishment levels. The report puts forward the idea that the main asset of the current system is a "skilled, dedicated, caring and motivated workforce". The key issue in achieving change is the need to consider the impact of changes on the existing workforce, their need for training

and support, and the development of new skills and work practices to meet the needs of the future. In developing the workforce to meet the new challenges, The Acute Hospital Services Review (2) notes that emphasis should be on:

- team working across professional and organisational boundaries;
- flexible working to make the best use of the range of skills and knowledge that staff have;
- patient focused workforce planning and development, stemming from the needs of patients, not professionals;
- maximising the contribution of all staff to patient care, doing away with barriers that say only doctors or nurses should provide particular types of care;
- modernising education and training;
- developing new, more flexible careers for staff from all professions;
- expanding the workforce to meet future demands.

The publication of the DHSSPS consultation document "the Employer of Choice" (21) outlines the commitment by the Department to improve services through attracting, retaining and developing the best staff. The paper outlines that the key areas that must be addressed are:

- workforce planning;
- recruitment, retention and return;
- improved working lives;
- equality and fairness;
- education and training;
- industrial relations.

It is in within this health policy context that we examine the physiotherapy profession in N.I.

2.7 The Physiotherapy Profession

There are currently around 33,835 Physiotherapists registered in the UK with the Health Professions Council (HPC). At present, only therapists working within the NHS are required by law to register with the HPC, however, a large number of Physiotherapists also work within the voluntary and private health sectors. From April 2003, all those wishing to call themselves Physiotherapists will have to register with the HPC, whether they are working within the private, public or voluntary sectors.

2.8 Supply Issues

It has been widely accepted that there are increasing difficulties with regard to the recruitment and retention of Physiotherapists over the past number of years. Particular issues associated with the supply of Physiotherapists are detailed in subsequent paragraphs:

Remuneration

The pay structure for Physiotherapists (as defined by the relevant HSS Circular, TC7 9/2001) provides three main clinical grades (Basic Grade, Senior II and Senior I) followed by Superintendent Grade (I-IV) and Area Grade (I-II). Management grades are identified at Superintendent and Area Grade Level (the Area grade is no longer widely used). The salary structure is the same as that applied to the other PAMs professions of Occupational Therapy, Chiropody, Orthoptics, Dietetics and Radiography with pay award determined by the National Review Body for Nursing Staff, Midwives, Health Visitors and Professions Allied to Medicine.

Towards the end of the 1990's, some flexibility for employers was developed in relation to PAMs remuneration, with the introduction of local pay supplements and local enabling agreements. The first allows employing authorities to pay supplements, not exceeding 20%, where management consider that proven problems in recruitment and retention could be redressed by pay enhancement. The enabling agreement arrangements also allow variations to existing grading criteria to assist in addressing recruitment and retention difficulties. The local process for determining proposals in both instances is subject to consultation with local staff side representatives. None of the above arrangements have been widely used, to date, by Trusts within NI.

In addition to the above, discretionary points have recently been introduced as a mechanism for staff to achieve recognition for having developed their role and skills. Staff are eligible for discretionary points after serving one year at the top of the scale.

Like other NHS professions, the remuneration of Physiotherapists will come within the new arrangements proposed under Agenda for Change, which will link individual pay progression to the development of skills and knowledge. It is anticipated that this will assist in defining career pathways and will allow staff to move into more advanced practitioner roles (with appropriate remuneration), without requiring a move into management. The timeframe for the introduction of these arrangements within NI HPSS has not yet been finalised, however it will be taken forward during the 5-year timeframe presented in the report.

Recruitment Issues

According to statistics from the Department of Health (England), physiotherapy vacancy rates (posts vacant for 3 months plus) in March 2000 stood at 4 per cent. This increased to 5 per cent in March 2001. 'On the day' vacancies have been reported to be significantly higher at over 10%. The Chartered Society of Physiotherapists Chief Executive suggested at that time "these figures reveal a bad situation getting worse." (Frontline, August 2001:7).

Evidence submitted by PT 'A' Staff Side representatives to the Pay Review Body in England during September 2001 highlighted that the low starting salaries of graduates was part of the recruitment problem. The evidence highlighted that there is a 19 to 20 per cent pay gap between the salaries of PAMs professionals and graduates throughout the industry.

The shortfall across all the PAMS groups was recognised in the NHS Plan (DoH, 2000) (22), which highlighted a commitment to increasing PAMs numbers, suggesting that by 2004 there would be:

- Over 6500 more therapists;
- 4,450 more therapists being trained; and
- new therapist Consultant posts.

The NHS document 'Investment and Reform for the NHS staff – Taking forward the NHS Plan' (February 2001) (23) sets out progress made in England and Wales towards delivering the commitments in the NHS Plan to increase the number of staff. The document specifically refers to Physiotherapists as being very much in demand for the implementation of the NHS Plan. An increase of physiotherapy staffing from around 16000 (2001/02) up to around 25,000 by 2009/10 is projected in the document. A number of initiatives are identified to meet the staffing projections outlined in 'Investment and Reform in NHS staff'. These include, investment in education and training places, active recruit of trained staff from abroad, return to practice initiatives, flexible working and flexible retirement.

Statistics from the Council for the Professions Supplementary to Medicine indicate that one in three Physiotherapists joining the register have trained abroad (Frontline, June 2001). A study commissioned by the CSP in 2000 also showed that, of new registrants on the state registration body each year, one third come from overseas. The study indicated that the vast majority of these overseas registrants were from Australia, South Africa and New Zealand, and they generally remained for 1 – 2 years before returning home. They therefore have a limited impact on the permanent workforce.

ROI

In the ROI, a report commissioned by the Minister and Health and Children (Current and Future Supply and Demand Conditions in the Labour Market for Certain Health Professional Therapists) (24) highlighted the shortage of qualified Physiotherapists, Occupational Therapists and Speech and Language Therapists. The report concluded that a major expansion is essential in the number of therapy professionals over the next fifteen years (an estimate of 1,328 additional Physiotherapists is suggested by 2015, providing a total of 2,628). The report indicates that there are an estimated 1,300 Physiotherapists in employment in the ROI, (with around 1,000 of this number working in the private sector). The vacancy rate for physiotherapy posts in the public sector is presented in the report at around 13.8%. The recommendations within the report include:

- an annual increase of 25 physiotherapy places at undergraduate level (being provided from September 2002);
- provision of sufficient clinical placements;
- concerted recruitment from overseas.

Bacon suggests that the scope for fast tracking qualifications should be examined, whereby graduates in relevant disciplines could enter a fast track process for gaining recognised qualification in any of the three therapy professions (the example quoted was the Masters Degree in Physiotherapy at the University of Ulster), and that appropriate courses should be made available to enable the assistant therapy staff numbers to be expanded significantly (freeing some time of newly qualified therapists for additional duties). The report also notes that the expert group of various health professions recommended that initiatives should be undertaken to facilitate the return to work of qualified personnel.

Retention Issues

The turnover rate amongst Physiotherapists in England and Wales (2001) was 20%, a level that has been maintained for 2-3 years (Frontline, February 2001). Evidence submitted by PT 'A' Staff Side representatives to the Pay Review Body in England during September 2001 stated that urgent action was needed to stem the flow of professionals from the service. In the staff side annual questionnaire to Physiotherapists, just over a quarter of respondents indicated that they would leave the service if they could. Eight per cent said they would leave as soon as the opportunity arose to do so. Some of the reasons for the discontent were highlighted as follows:

- staff have 'huge and overbearing workloads' and are 'burnt out at the pace and pressure of reform';
- Staff are frustrated at the lack of time for patient care, and disillusioned at the block on their career progression.

The qualifications and skills of Physiotherapists are transferable and at least some staff spend time working abroad. In 2001, there were 1,283 CSP members working abroad, with just under half of these working in the 'big five' Australia, Canada, USA, New Zealand and South Africa.

Education and Training

A number of strategic documents review education, training and development for health professionals in England and Wales (19,20). Educating and Training the Workforce for England (2001) concluded that achieving the planned expansion set out in the July 2000 NHS Plan depends on increased investment in teaching staff and accommodation at higher education institutions; achieving value for money in the provision of training courses; a reduction in student drop out rates and a larger number of good quality practice placements. The reports also note the availability of suitable practice placements as a critical limiting factor on the number of training places that can be commissioned, and that given current staffing levels, most hospital departments are close to or have already reached their capacity for supervising students.

The predominately female physiotherapy workforce, 92% in Northern Ireland (37) has implications for both part-time working and the need for family friendly working policies. The importance of having regard for the needs of a predominately female workforce is well documented in the Hayes Report (2).

In England and Wales, this is documented in the third Report of the House of Commons Select Committee on Health. In considering NHS workforce issues the report details the Government's commitment to introduce a range of family friendly policies including child care facilities, flexible hours, and job share opportunities, and the fact that the NHS operates a comprehensive 24-hour service, provides opportunities. There is, therefore, a need be an employer who allows staff to 'marry their work and out-of-work responsibilities'.

Lecturer Practitioners

An article in Frontline (March 2002) highlighted the need for more Lecture-Practitioner posts to bridge the theory-practice gap, and develop local links between Trusts and the Universities. Currently, there are 30 Lecturer-Practitioners employed at 15 UK Universities.

2.9 Demand Issues

Understanding the current and future demand issues within HPSS as they relate to Physiotherapists is essential in projecting future requirements for staff. Some of the relevant issues are highlighted below.

Societal Changes

The Department for Education and Employment, Employers Skills Survey Report (25), highlighted that there has been steady growth in demand, that is expected to continue in the medium term, for the services of Professions Allied to Medicine. Factors contributing to this demand include ageing population, rising expectations of patients and government reforms including a move towards care in the community, more integrated multi-disciplinary services and the introduction of clinical governance. The report identifies that the picture within HPSS is one of changes in technology and ways of working, requiring staff to have a greater range of skills and a higher level of skills.

Education / Children's services

The increased demand for therapy services within educational settings is evidenced by figures provided by the South Eastern Education and Library Board. During the period 1985 to 2001, there was a 114% increase in the number of children attending special schools in the area (604 to 1,291). Between 1997 and 2001, the number of children with a statement of special education needs increased by 14% (2,592 to 2,943). In addition, a significant number of children with special educational needs do not receive a statement, but are supported through specialist inputs within mainstream education. This increased demand in the educational setting through NI over the past number of years has not been matched by increased investment in therapy services to the schools.

The 5 Education and Library Boards are currently carrying out a review of the demand for services (including physiotherapy) in schools for children with special educational needs. The

review will report in Mid 2002 and is likely to highlight the need for significant investment in services to support the increasing number of special needs children attending schools.

Special Education Needs and Disability Bill (2003/4) - This new legislation which is likely to be passed by the Assembly in 2003/04, will provide more opportunity for parents to opt to place their children in mainstream schools with the recommended support required, rather than within a special school. (The Bill will remove 'economic grounds' as a reason for Boards not recommending placement of special needs children in mainstream schools). This will potentially have logistical and resource implications for paediatric Physiotherapists who may be required to provide therapy services to children placed in scattered mainstream schools.

CPD and Research

Evidence based practice through good quality audit and research is vital if physiotherapy is to develop as a profession. Evidence in Frontline (February 2001) indicates that, in recent years, there has been an increase in the amount of research being undertaken by Physiotherapists, with larger numbers pursuing higher education, and understanding the importance of using outcome measures and evidence-based practice. In 2001, there were 96 members only however, with Doctorates.

A report completed by the Research and Development Office in Northern Ireland (26) found that the ratio of physiotherapist staff involved in research was 1:14, and only 1% of Physiotherapists surveyed had a Masters Degree. The report concluded that much more needs to be done to support PAMS in this area, (R&D Office, 2001).

In relation to continuing professional development, the standards of physiotherapy practice make it clear that all therapists must continue to advance their knowledge and skills throughout their careers. It is expected that the new Health Professions Council (HPC), which was established in April 2002, will seek evidence of competence and continuing professional development before confirming registration of Physiotherapists.

Rehabilitation – specialist teams

The demand for physiotherapy in this area of service will continue to grow with an increasing elderly population and the need for the development of rehabilitation services within the community.

Cancer Services

The NHS Cancer Plan (27) and the Calman-Hine Report (28), in the United Kingdom, were published with the aim to create a network of cancer care within England and Wales so that every patient, wherever he or she lives, receive a uniformly high standard of care.

In the Government's strategic document 'Investing for Health' Northern Ireland, it states that, as the second most frequent cause of death, men have a 1 in 6, and women have a 1 in 8 chance of dying from it before the age of 75yrs. The Campbell Report (1996) (7) was a key document as it showed that treatment by specialist, multi-disciplinary teams leads to better outcomes for patients. To ensure that all people with the disease have rapid access to cancer services, the report also outlined the need for current services to be re-organised. The implementation of the

report will provide one regional cancer centre at the Belfast City Hospital, and four additional cancer units, one for each Board area. To progress the development of Cancer Units and the Cancer Centre in line with the Campbell Report, is one of the key objectives within both the 'Acute Services Review'(2) and 'Priorities for Action'(6). Physiotherapists will form part of the multidisciplinary services to be taken forward in this area and in the further development of specialist palliative care teams that will work in the community.

3. METHODOLOGY

The methodology for the review contained the following research components:

- Literature review, data research and analysis and questionnaire to service managers;
- Key informant interviews;
- Focus Groups.

3.1 Terms of Reference

The terms of reference were identified as follows:

- to provide a profile of the current Physiotherapy workforce in Northern Ireland, including:
  - numbers employed;
  - age and gender balance;
  - working patterns.
- to provide an analysis of the current and future recruitment and retention issues, including:
  - pay;
  - career development and specialisation;
  - career breaks/leaving the profession;
  - working arrangements.
- provide a prediction of anticipated future supply and demand for Physiotherapists over the next 5 year period.

One of the main outcomes of the review is to assist the Department in reviewing the number of student places that need to be commissioned from education locally to meet future service demands.

3.2 Literature Review and Research

A review of key strategic documents (both local and national) was carried out to set down the policy context influencing the delivery of physiotherapy services and consequently workforce planning, both for now and into the future. A limited range of papers on recruitment and retention issues relating to Physiotherapists was also reviewed. The content of these documents is largely considered in Section 2.

To gather accurate information that would help in the development of the current and future profile of the physiotherapy workforce a range of information sources was utilised. These included:

- A detailed workforce questionnaire completed by all physiotherapy managers working in HSS Trusts in N.I.;
- DHSSPS Project Support Analysis Branch HRMS database;
- Health Professions Council database;
- University of Ulster: Student Profile Report.

The data gathered through the above sources was vital in informing the future demand and supply predictions for the physiotherapy workforce.

3.3 Key Informant Interviews

The Project Group identified a number of key individuals who would contribute to qualitative data in relation to the following areas:

- current and future recruitment and retention issues;
- current and future demand issues;
- identification of parameters that will impact on the supply and demand of Physiotherapists over the next 5 years, within the context of the HPSS service and the wider environment.

The list of the 18 individuals who took part in the interviews is detailed in Appendix II.

3.4 Focus Groups

Eight focus groups were held in various locations throughout N.I. All of the groups were organised and facilitated by the Beeches Management Centre.

The purpose of the groups was to explore, with a mixture of physiotherapy staff (within different grades / specialisms) issues that they (staff working on the ground within HPSS) felt were key to the recruitment and retention of staff. The locations of the groups were as follows:

- EHSSB (2 groups)
- SHSSB (1 group)
- NHSSB (2 groups)
- WHSSB (2 groups)
- University of Ulster (1 group of undergraduate students)

A total of 56 Physiotherapists and 8 students participated in the events.

A wide range of qualitative information was gathered through the groups on the current and future recruitment, retention and demand indicators.

4. FINDINGS

This section details the key findings from the analysis of the workforce profile information.

4.1 Workforce Demographic Profile

The data from the DHSSPS Project Support Analysis Branch, and the questionnaire completed by service managers provided the majority of the workforce information presented.

Profile of the Physiotherapy Workforce

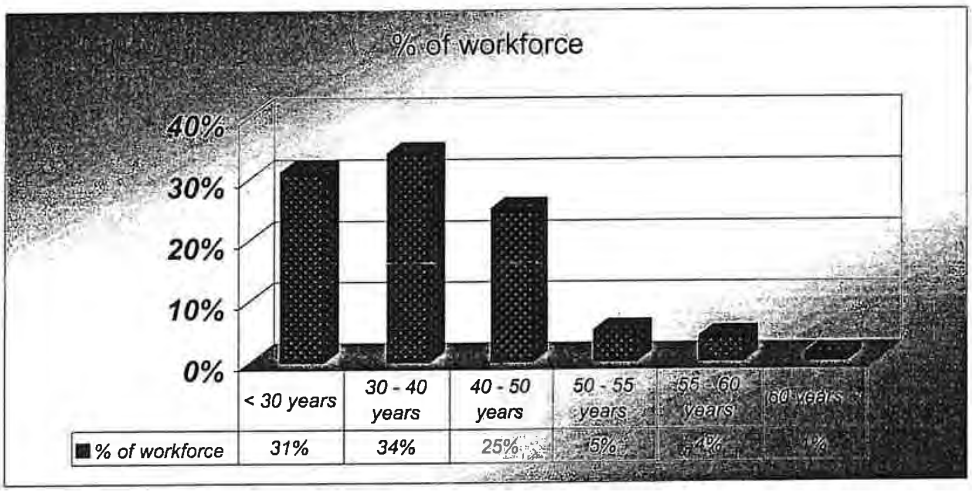
The DHSSPS Human Resources Management system records 687 Physiotherapists employed across the HPSS in NI. Of the 687 staff, 5% are recorded as being employed on a temporary basis. In addition, 38 Physiotherapists are recorded as bank staff, however, a number of these may also be employed permanently within other Trusts.

92% of the workforce is female with 8% male. There has been a slight increase in the number of males within the workforce (2%) over the past 4 years. (Source: DHSSPS)

4.2 Age Profile

The age profile of the workforce is detailed in the Figure below:

Figure : Age Profile –Physiotherapists –December 2001



Source : DHSSPS, December 2001

The data indicates that the majority (90%) of the current workforce is under 50 years of age.

4.3 Full Time / Part Time Profile

The number of Physiotherapists working part time has increase slightly over the past 4 years, from 228 in 1998 (37% of the total workforce) to 260 in 2001 (39% of the workforce) (Source DHSSPS). Overall the workforce has grown by 11% (619 to 687) over the period 1998 – 2001.

Headcount to Whole Time Equivalent Breakdown

Based on the available data, information can be presented on the ratio of current numbers of full-time to part-time physiotherapy staff, shown as actual headcount to whole time equivalent.

Table : Headcount to WTE ratio

Total Headcount (Dec 2001)	687
Total WTE (Dec 2001)	564.64
WTE / Headcount	Headcount = 1.2 WTE

Source: DHSSPS

The figure indicates that for every WTE physiotherapist post, the equivalent of 1.2 staff are employed within the service. This reflects the impact of part-time working within the profession.

4.4 Workforce Profile By Grade

An analysis across all HSS Trusts of grade profile of the physiotherapy workforce is detailed in the table below.

Table : Grade Profile –December 2001

Grade	F/T	P/T	Total	% of total
Basic	**100**	**3**	**103**	**15%**
Senior II	**99**	**51**	**150**	**22%**
Senior I	**134**	**204**	**338**	**49%**
Superintendent IV	**13**	**4**	**17**	**2.5%**
Superintendent III	**41**	**10**	**51**	**7.4%**
Superintendent II	**8**	**0**	**8**	**1.2%**
Superintendent I	**7**	**0**	**7**	**1%**
Area II	**2**	**0**	**2**	**0.3%**
Others	**8**	**3**	**11**	**1.6%**
TOTAL	**412**	**275**	**687**	**100%**

Source : Trust questionnaire – December 2001

The table indicates that there are a lower percentage of posts for new graduates (Basic Grade) and at Senior II level. With the vast majority of staff at the Senior Clinical Grade I, there is clearly an issue in ensuring that there are adequate numbers of appropriately skilled staff available to apply for the Senior I positions.

In addition to the professional staff group, all of the Trusts employing Physiotherapists also employ helper grade staff. A total of 127 assistants were recorded as working within the HPSS throughout N.I. (DHSSPS, December 2001). The majority of these staff are female (82%), with 50% in full-time posts and 50% part-time. The number of helpers employed has increased by 27% in the last 4 years (100 in 1998 to 127 in 2001).

4.5 Vacancy Analysis

The workforce questionnaire forwarded to service managers provided details of the vacancy profile at 30 December 2001. The analysis of the vacancies at that particular date is detailed below (includes all long term and short term vacancies identified by Trusts).

Table : Vacancies –December 2001

BOARD	FULL-TIME	PART-TIME	TOTAL
EHSSB	13	9	22
SHSSB	4	2	6
NHSSB	4	5	9
WHSSB	3	2	5
Total	24	18	42

Source : Trust questionnaire

Out of 42 identified vacancies at 30 December 2001, 26 related to permanent posts, 3 related to fixed term posts and 13 were within temporary posts. (N.B. Comment was made within the project group, that some vacancies are not filled due to financial pressures within Trusts).

Vacancy Analysis / Total Workforce

The information from the workforce questionnaire at 30 December 2001 indicates a current vacancy rate of 5% within the HPSS Physiotherapy workforce. This is calculated as follows:

- Staff in post (December 2001) 687
- Vacancies (December 2001) 42
- Total workforce 729
- Vacancy % rate 5.8%

4.6 Recruitment and Retention of Staff

Managers were asked within the questionnaire to identify the number of staff they had been able to recruit from universities or employers outside N.I. The figures provided indicated that on average (across the last 3 years) :

- 6 new graduates from universities outside N.I. returned each year to find their first job within N.I;
- 11 qualified staff returned each year to the N.I HPSS workforce after working as therapists elsewhere.

In relation to retention of staff, managers returned the following information :

- 50 staff per annum left the HPSS workforce during 1999 – 2001 (taken as an average over the last three years). (This equates to approximately 7% of the workforce)
- 11% of the above retired
- 11.5% left for family reasons
- 22% left to take up a post outside N.I.
- 12% left to take up a post in the private sector
- 43.5% left for other reasons

The figures provided have informed the development of the supply projections detailed in future sections of the report.

5. KEY FINDINGS IN INTERVIEWS AND FOCUS GROUPS: SUPPLY ISSUES

This section provides details of the various views expressed throughout the 19 key informant interviews and 8 focus groups. Many of the issues raised by different individuals were similar and provided valuable information, which has informed the development of the recommendations and conclusions contained in the report.

5.1 Supply Issues - University of Ulster Graduates

The University reported that recruitment to the BSc(Hons) Degree course at Jordanstown was not an issue, although the number of applicants has reduced from 902 (in 1996/7) to 490 (in 2001/02) for around 65 available places per annum. Over the last five years, all places available have been taken up, with usually between 90% and 95% of students being NI residents. An average of 3 students per year, over the last 3 years, have been from the ROI, although the numbers applying has decreased since the introduction of no fees being payable in the ROI. The academic entrance standard to the course is high, with usually 3 'A' grades (or 2 A's and 1 B, if two sciences are included) required at 'A' level or equivalent. Females continue to make up the majority of undergraduates (on average 79% over the last 3 years).

Figures available from the University indicate the first destination of graduates after graduating, over the period 1999 - 2001.

Table : First destination of qualifying UU Graduates, 1996 – 2000

First Destination	1999	2000	2001
N.I.- HPSS	30 (52%)	29 (50%)	44 (71%)
GB - NHS	11	8	2
ROI	6	7	9
Abroad	3	3	3
Private Sector	1	2	1
Education	0	2	0
Unknown	7	7	3
Total	58	58	62

Source : University of Ulster

The figures indicate an average of only 58% of students joining the N.I. HPSS workforce immediately after graduating from the University of Ulster.

Comments from the University of Ulster and focus group participants indicated the increasing employment options and incentives now available to new graduates outside Northern Ireland. These included:

- Bursaries on offer from service providers in the Republic of Ireland if students agreed to work there for a limited period after qualifying.
- Guarantee of better continuing professional development opportunities than would be available in Northern Ireland.

Participants in the focus group were divided as to the attraction of private practice vis-à-vis the HPSS. However, there was agreement that those graduates that wanted to go into private practice need postgraduate experience, for example, in musculo-skeletal medicine.

Masters Course

A Master of Science Degree course in Physiotherapy will be available at UU from June 2002. This will enable graduates with relevant primary degrees to qualify as Physiotherapists on completion of a two year, 3 months course. The course will be able to provide access (eventually) for up to 24 students per annum, however, at present, all NI applicants are required to be self-funding. (The full course fees are £12,000 for EU residents and £27,250 for overseas students). As a result, there are currently only 4 NI applicants on the course to commence in June. The remaining confirmed or potential course participants for June 2002 are from the ROI or overseas. (The University has noted that students from the ROI appear to be able to access funding from their health boards to participate on the course).

5.2 HPSS Recruitment

Nearly all Trust managers interviewed indicated that they had been experiencing increasing difficulties in recruiting staff over the last 1-3 years. A small minority of Trusts (2), indicated that recruitment was not a problem.

Difficulties outlined included: unattractive location of some posts and lack of experienced staff for certain specialist posts (due to limited junior grade posts in some speciality areas). There was a strong feeling that NI will also face increasing competition in attracting staff, due to the proposals set out both in mainland GB and in the ROI, to significantly increase the number of physiotherapy posts over the next few years.

There was a clear indication from both the interviews and focus groups that there are no 'spare' Physiotherapists within Northern Ireland who would be willing to work if posts become available.

5.3 Grade Issues

The majority of Trusts which have recruitment difficulties, are experiencing problems recruiting to specialist Senior I posts in a variety of specialties: e.g. paediatrics, neurological rehabilitation, pulmonary rehabilitation, Stroke Unit, Orthopaedics, Care Management, Outpatients, Manual Handling, community rehabilitation.

A significant number of Trusts are also experiencing problems recruiting to Basic Grade, Senior II and Superintendent posts.

5.4 Geographical Area

The geographical position of some Trusts has impacted on their ability to recruit and retain staff. Trusts attributing part of their recruitment difficulties to their location included, Causeway, United Hospitals, Down Lisburn, Armagh and Dungannon, Sperrin Lakeland (rural areas) and North and West Belfast. Proximity to the border with the ROI may also exacerbate recruitment difficulties for certain Trusts, such as Newry and Mourne, particularly with the anticipated increase in posts in the South as projected in the Bacon report.

5.5 Specialty Areas

Interview respondents indicated that in certain specialty areas, it was more difficult to fill posts than others. The specialty areas that were currently having most difficulty recruiting staff were highlighted by the key interview respondents as learning disability, paediatrics, care of the elderly, domiciliary care and community rehabilitation.

5.6 Temporary/Pilot Project Posts

The majority of Trusts had experienced difficulty recruiting to temporary or fixed term project posts. One Trust reported not being able to get temporary staff at all.

5.7 Bank And Agency

Half of all Trusts interviewed indicated that they had established a Bank. Bank numbers ranged from 1 in North and West Belfast Trust to 10 in Greenpark Healthcare Trust.

Only 3 Trusts had attempted to secure Agency staff to fill posts. Two of these Trusts had been successful in their attempts.

5.8 HPSS Retention

Half of all Trusts reported retention of Basic Grade staff as a specific issue, with the majority of staff leaving for promotion. Altnagelvin Hospital Trust indicated that they had specific difficulties retaining staff because of the absence of Senior II posts in their workforce structure.

Competition between Trusts was also highlighted as an increasing issue in the retention of staff.

5.9 Family Friendly Policies/Career Breaks/Return To Practice

With a female dominated workforce, many respondents in the key informant interviews reported increasing requests for flexible working. Many of the Managers reported feeling obliged to accommodate such requests given the emphasis within the HPSS on the implementation of family friendly policies. The requests for flexible working were reported as relating in the main to unpaid leave or reduced hours after a period of maternity leave.

Eleven out of fourteen Trusts interviewed indicated that they had experienced requests for career breaks. Six of the eleven Trusts had experienced 3-5 requests in the last 3 years. Evidence from the interviews did however indicate that in the main, staff return to the Trust following a career break.

5.10 Private/Voluntary Sector

During 2001/2 there were 83 Northern Ireland Physiotherapists registered with the Organisation of Chartered Physiotherapists in Private Practice (OCPPP). Although evidence would suggest that the majority of private practitioners do register with OCPPP, it is not a requirement of working in private practice. Some existing HPSS staff also offer private sessions outside their HPSS work, however, there is currently no means of collating evidence as to the numbers involved in private practice whose substantive employment is in the HPSS. Evidence from the key informant interviews indicated that almost half of all Trusts had experienced staff leaving for private practice, and 3 Trusts indicated that they are aware of staff who dual-work between the HPSS and private practice. It appears that the ability of the private sector to impact on the workforce market within the HPSS in Northern Ireland is constrained by the fact that the experience required for private practice is of a specialist outpatient nature, and this focus would appeal only to a limited number of people.

Recent direction from the private medical insurance industry will mean that there is likely to be a reduction in the number of newly qualified staff going into private practice. A main private medical insurer has recently developed a Service Specification for Physiotherapy Provision by Independent Practitioners, which tightens the criteria for practitioners providing private provision. It requires that Independent Practitioners have:

- 5 years qualification experience in full-time practice;
- A commitment to audit outcomes;
- Dedicated facilities for private practice;
- References.

The review was not able to quantify the number of Physiotherapists who work within other areas, such as the voluntary sector. Many Trusts reported, however, that they work closely with a range of organisations, such as the MS Society, NI Chest Heart and Stroke Association and Arthritis Care. Trusts also provide services (via GP referrals) within private residential and nursing homes on a regular basis.

5.11 Working Hours, Terms And Conditions

Many respondents in the interviews and focus groups indicated that working hours and terms and conditions impacted on the recruitment and retention of staff. Participants were particularly frustrated by the increment system, the on-call system, and the current use of Discretionary Points as a means of extending the pay scale.

The most common area of concern was the on-call payment system. Participants in the focus groups reported that on-call pay was poor, particularly when compared with other PAMs staff groups, such as radiographers. As one participant in the focus group suggested, "I pay a teenager to babysit for more than I get on-call per night."

Concerns were also raised by focus group participants about the limited opportunity for progression of pay once at Senior I level:
"Senior 1 is a big area of discontent. You get to a certain point and the pay doesn't increase."
"I got my last increment in 1988, which was 14 years ago."

The current use of Discretionary Points to extend the pay scale of Physiotherapists was seen by almost all participants in the focus groups as divisive, and a "gimic" to keep staff happy. Staff also reported distaste at having to prove on paper what they did, which was time-consuming in itself. As one participant in the focus group suggested:
"Discretionary points are worth £300 pro-rata. You have to sing your own praises for stuff that you do all the time. There is a lot of work to prove your own worth."

The implementation of the working time directive will have implications for some areas within physiotherapy services, although its impact has yet to be quantified by Trusts.

5.12 Career Progression

Many respondents in the interviews and focus groups indicated that career progression was a key area of concern, and impacted on the recruitment and retention of staff. Evidence from the focus groups indicated that a typical career path entailed the majority of graduates undertaking a Basic Grade rotational post in a Hospital. The common sequence after such time was to apply for a Senior II post, in line with Whitley guidelines. Much concern was expressed by both interview and focus group participants at the limited number of Senior II posts. Participants in the focus groups suggested:

"By three years you want to go for a Senior II post, but you won't get into it before 4 years."
"There is a lot of frustration in the system as nothing is coming up."

A small number of key interview informants suggested that what might need to be considered within strict guidelines, is the natural progression of staff to Senior II level, after a number of years in a basic grade post.

The most common concern was the limited opportunity for career progression once at Senior I level. It was reported that an active decision was made at Senior I level as to whether staff wanted to leave the clinical route and become a manager, as is reflected in the comment below:

"At Senior I level you have nowhere to go unless you go into management, but people want to be clinically based. The Enabling Agreement was not taken on board here."

It was highlighted that becoming a manager was becoming less appealing because of the additional responsibility and the limited pay differential between managerial and clinical grades. Key informants also indicated that the creation of clinical specialist / enhanced practitioner / consultant posts, although desirable, would only seek to increase the problems recruiting to Managerial posts.

5.13 Continuing Professional Development (CPD) And Research

Both interview informants and focus group participants highlighted lack of support for continuing professional development as a key concern. All staff acknowledged the importance of CPD in terms of ensuring their ability to perform and meet the demands of the service.

The main issue raised by both the key informants and the focus group participants was one of limited funding per person per Trust. Consequently, staff were funding themselves to ensure that their skills were maintained and developed, and as one member of staff highlighted, "If you can't afford to go you miss out." Staff in the focus group sessions also highlighted the lack of consistency both across Trusts and between grades for continuing professional development funding.

Interview respondents and focus group participants also reported significant concern with the fact that they frequently use annual leave and weekend time to participate on courses. This caused additional difficulties if staff were required to work on-call on one weekend and then go on a course the following weekend. Two Trusts were attempting to accommodate the weekend course issue by providing time off in lieu. However, for the majority of Trusts this was not possible because of the demands of the service.

Staff also reported some problems with accessibility to relevant courses. Staff highlighted the fact that they were sometimes required to go to England for specialist courses in areas such as respiratory, ICU, paediatrics and thoracic medicine.

Interview and focus group respondents highlighted therefore that an appropriate level of investment in terms of time and resources in CPD, as well as a regional approach to assessing, prioritising and funding of such training was urgently required.

5.14 Advertising

A small number of Trusts had attempted to advertise vacancies nationally, however the majority have not pursued this route, in part due to the cost.

A number commented that if therapists outside N.I. were looking for posts within the province, they would actively seek information from, for example, the Belfast Telegraph web site or the Manager direct.

6. KEY FINDINGS IN INTERVIEWS AND FOCUS GROUPS: DEMAND ISSUES

All respondents expressed concern about the inability of the HPSS to meet the demand for physiotherapy services both currently and in the future.

6.1 Current Services

The evidence from the interviews suggested that there are increasing demands for services across many services areas including:

- Outpatients
- Paediatrics / support for children with special education needs
- Adult Learning Disability
- Physical Disability
- Intensive Care Unit
- Women's Health
- Orthopaedics
- Acute and community rehabilitation for elderly, brain injury, oncology, pulmonary, cardiac and neurology.

6.2 Paperwork And Administration

The majority of interview and focus group respondents indicated that paperwork and administration were taking up more and more of qualified therapists time, which was reducing the amount of patient contact time. As one participant in a focus group session highlighted, "I worked in the Civil Service before I became a physiotherapist. There was less paperwork in that than what I do now, 35 per cent of my time is spent on paperwork."

The amount of time spent on clerical tasks had evolved out of the increasing need to document all aspects of a therapist's work because of increasing legislation, increasing litigation, increasing Parliamentary questions, and increasing audit and performance review. Few therapists felt that they had access to adequate clerical support, and half of all focus group participants felt that a significant proportion of the administrative work could be reallocated to administration staff if there were appropriate numbers.

Interview respondents also commented on the lack of IT infrastructure and associated training within their organisations.

6.3 Skill Mix

Trusts employing physiotherapy helpers commented positively on the contribution they made to service delivery. Most of the respondents in the key informant interviews recognise that there is a place for assistants within the current skill mix, particularly in areas such as working with patients, clients and carers on programmes that have been designed by qualified staff. Respondents within the focus groups indicated that better use of assistants would allow qualified staff to treat more patients effectively and efficiently.

The majority of interview informants and focus group participants indicated that there was potential for increasing the numbers of helper staff. Respondents did, however, emphasise that the assistant role could not replace that of the qualified therapist, and proper supervision arrangements are necessary to ensure effective and appropriate use of assistant time.

Respondents in both the interviews and focus groups also indicated that issues that needed to be addressed within the assistant role included the lack of opportunity for career development and poor pay structure.

6.4 Continuing Professional Development

As highlighted earlier in the report, CPD and a commitment to facilitating staff training is viewed as a key factor in the recruitment and retention of staff. This is also set against the background of Trusts having difficulty in recruiting suitable trained staff for some specialist positions and the likely introduction, by the new Health Professions Council, of a requirement for Physiotherapists to produce evidence of competence and continuing professional development before confirmation of registration.

6.5 Clinical Placements

Thirteen out of fourteen Trusts interviewed provided clinical placements, although three Trusts were not able to provide them routinely. The advantages of providing clinical placements were noted as "stimulating," "keeping staff on their toes" and "useful for attracting graduates" A number of Trusts indicated however that it was becoming increasingly difficult to facilitate placements. Reasons attributed to this include staffing levels, training allowances not attracting qualified staff to supervise, and let fact that only a small number of Trusts have a Clinical Tutor. In addition, it was noted that the lack of suitable accommodation to facilitate students in physiotherapy departments was a real issue.

The University of Ulster confirmed that all 3rd and 4th year students can be facilitated with placements in NI, although some do to spend time in other countries, by choice. There is, however, more difficulty in the local provision of 2nd year student placements.

6.6 Increasing Patient Expectations

All respondents reported that patient expectations had increased, and that there was a widening gap between what patients expected and what could actually be delivered. Respondents highlighted the fact that patients were more knowledgeable about their rights through increased availability and access to information, and that patients were more able to vocalise their rights due to the devolved Assembly structure.

6.7 Role Extension / Development (Extended Scope Practitioner / Clinical Specialist / Consultant)

Organisational changes around the delivery of health and social care over the past decade have provided an opportunity for Physiotherapists to develop their role beyond that traditionally recognised. The drivers for this development include:

- changes to the working hours of junior doctors;

- increasing pressure to control out-patient clinic waiting lists;
- skill mix and costing exercises;
- greater discretion for non-medically trained staff to expand their scope of practice;
- greater awareness of the "added value" of physiotherapy;
- new ideas in the organisation of patient care.

This extension of the traditional role has proved effective in other parts of the UK and is welcomed. Examples of specialist areas, which currently benefit include Orthopaedics, Rheumatology, Accident and Emergency, Continence, Respiratory Care, Brain Injury and Cancer. Respondents indicated that these roles should be facilitated in N.Ireland and developed further.

Both the interview informants and the focus group participants indicated a level of frustration at the slow progress with the establishment of specialist posts (i.e. Clinical Specialist, Extended Scope Practitioner, physiotherapy Consultant posts). Many respondents indicated that the development of such posts was important in acknowledging high levels of clinical expertise within the profession.

6.8 New Services

A number of new service areas will require investment in additional physiotherapy staff over the next few years. They include:

- Brain Injury: The development of the new regional brain injury unit and community support services;
- Cancer Services: The proposed arrangements for the development of cancer services (including palliative care) will present additional demands, both in the acute and community sectors.

6.9 Societal Factors

The majority of respondents highlighted the following societal factors as necessitating an increase in demand:

- Ageing Population - advances in medicine and technology have resulted in people living longer lives and this has resulted in an increase in demand for therapists;
- Increased Dependency - again in relation to the above, it is now recognised that those who receive the care are generally more dependant than before and this brings about a more resource intensive service;
- Medical Technology- advances in medicine and technology have resulted in people with certain conditions surviving, where previously they would not have done. For example, children are now leaving Hospital requiring ventilator support, and there are more people

with terminal illnesses or life-limiting illnesses surviving, where previously they would not have done.

7. WORKFORCE SUPPLY AND DEMAND PROJECTIONS

This section provides details on the modelling and assumptions used to estimated supply of and demand for Physiotherapists within the NI HPSS workforce over the next five years.

7.1 Supply of the Physiotherapists

The supply information presented below has mainly been gathered by reviewing trends over the past 3 / 4 year period, presented in the data supplied by the DHSSPS, University of Ulster and Trust Physiotherapy Managers.

The supply of Physiotherapists within the N.I. workforce is in the main determined by:

- the existing employees currently available in the workforce (including full-time and part-time staff);
- students graduating from the University of Ulster;
- students returning to work in N.I. after graduating from a university outside N.I;
- professionals joining the workforce who were working previously outside N.I;
- professionals leaving the workforce (through retirement, leaving for family reasons, career break etc.);

The table below outlines the current and predicted supply of Physiotherapists within the workforce over the 5 year period 2002 – 2006.

Table : Supply of Physiotherapists (Headcount) 2001 - 2006

Supply	2002	2003	2004	2005	2006
University of Ulster Graduates	35	35	39	35	35
Masters Degree Graduates	-	-	3	4	5
Entering the Workforce					
Graduates entering the workforce from outside N.I.	6	6	6	6	6
Physios returning to work in N.I. from elsewhere	10	10	10	11	11
TOTAL ENTERING THE WORKFORCE	***51***	***51***	***58***	***56***	***57***
Leaving the workforce					
Leavers (work life balance / other leavers)	43	43	43	43	43
Physios retiring (including incapacity)	11	11	11	11	11
TOTAL LEAVING THE WORKFORCE	***54***	***54***	***54***	***54***	***54***
Total currently in the workforce	687	684	681	685	687
Projected Number in workforce	684	681	685	687	690
Net increase / (decrease)	(0.4%)	(0.4%)	0.6%	0.3%	0.4%

The figures presented above have been projected as follows:

- UU Graduates joining the workforce via the BSc (Hons) route have been estimated at 58% of those graduating, with an attrition rate of 4 students per intake, (based on evidence from UU over the last 3 years). The figures presented are a 'worse case scenario' in that they have assumed no improvement in this average retention of newly qualified University of Ulster students within N.I. This figure could potentially be reviewed given the higher retention rate in 2001(71%).

- The number of master degree graduates joining the workforce is projected as only 20% of course participants, given the low uptake of places by NI residents (potentially 4 commencing) on the first course. If funding was made available for local postgraduate students many more NI applications would be made for the course.

- The projected number of Physiotherapists joining the N.I. workforce from outside N.I. is based on evidence gathered from the Trust questionnaires and comments from the project group. While this number is projected as constant over the 5-year projection, it is acknowledged that the inflow of qualified therapists could be reduced due to increased

opportunities in both GB and the ROI (with increased number of posts projected as being available). This figure will therefore require to be reviewed over the period of the workforce projection.

- Based on evidence gathered through the review, it has been assumed that there will continue to be an impact on the workforce of the uptake of family friendly policies, including requests for part-time working / career breaks etc. Evidence from the Trust questionnaires and DHSSPS data has also been used to project the number of therapists who will leave the HPSS for reasons other than retirement over the next 4 years. Due to the impact of both these factors it has been projected that around 6% of the workforce will be lost each year.

- Figures from DHSSPS Project Support Analysis Branch indicate that over the last 3 years, the average retirement age for therapists was 54 years. However, the age profile of the current workforce indicates that 5% of the current workforce (37 individuals) is over 54 years of age. (Physiotherapists can at present retire at 55 years). Given this information, and after discussion with the project group, the assumption has been made that the majority of the workforce (80%) will retire at 57 years of age. DHSSPS figures also indicated that 3 staff over the last 3 years have retired early due to in capacity and therefore an additional 1 Physiotherapist leaver per annum has been included to take account of this variable.

Based on the above analysis and assumptions it is predicted that the supply of Physiotherapists over the course of the next 5 years will increase by under 1%.

7.2 Demand for Physiotherapists

It is difficult to obtain accurate data concerning the exact future quantifiable demand for Physiotherapists within N.I. This is mainly due to the fact that there is little specific information available on projected resource investment within the service over the next five years. In addition, there are a number of service reviews currently ongoing that will influence the service development over the next years, i.e.

- DHSSPS Community Care Review
- SHSSB Elderly Review
- Education and Library Boards Review – Support for Children with special needs in Education
- WHSSB PAMS Review
- NHSSB Elderly, Physical Disability, Sensory Impairment Review

Likely demand areas for additional Physiotherapists required within the HPSS over the next 5 years have, however, been outlined under three headings;

1. Agreed policy context and resource approved

This refers to service developments that have been agreed within the current HPSS policy framework with resources identified, or are likely to be approved over the course of the 5-year workforce plan.

2. Future policy context that may potentially be resourced
This refers to service developments that have been identified via key informant interviews and the project group, which potentially may be supported over the next five years, although resources have yet to be identified.

3. Unmet demand
This refers to additional unmet demands within the current services, identified via the key informant interviews and project group. There is no specific policy context or resource identified at present to meet this demand.

*1. **Agreed policy context and resource approved** - Service areas included are:*

- Cancer Centres Development: 17 posts (2002/6)
- Regional Brain Injury Unit: 5 posts (2003)
- Local Health and Social Care Groups: 2 posts (2002/3)
- Priorities for Action Posts (SHSSB): 3 posts (2002/3)

*2. **Future policy context that may potentially be resourced** - Service areas and suggested additional posts included are:*

- Community care review: 22 posts (2 per community Trust)
- Brain Injury, community infrastructure: 8 posts (2 per Board)
- Special Education Review: 10 posts (2 per ELB area)
- Palliative Care: 8 posts (2 per Board)
- PAMS Consultant posts 4 posts (1 per Board)
- CPD time (10 sessions per annum) 11 posts
- Extended scope practitioner / Clinical specialist posts: Not quantified yet, but up to 5 additional posts per Trust has been suggested (project group)
- Impact of working time directive: Not quantified yet

*3. **Unmet demand – Other areas of unmet demand are identified below**:*

- Extended Hours Clinic Working (potential developments under Local Health and Social Care Groups)
- Orthopaedics
- Cardiac / Stroke Pulmonary Rehabilitation
- Intensive Care
- Women's Health / continence services
- Disability services / long term conditions
- Paediatrics
- Health Promotion
- Mental Health services

7.3 Supply Vs Demand

To provide an indicator of the supply of Physiotherapists against demand over the next 5 years a number of scenarios are presented below. The projections have included the impact on the workforce of different demand scenarios (i.e. workforce increases) of 4% (resources identified), 13% and 25% (potential additional resources) over the 5-year period.

The current vacancy level has been profiled in over the first 2 years of the projections.

Table : Projected workforce supply against projected demand 2002 – 2006 (Headcount)

	2002	2003	2004	2005	2006
Supply					
Entering total	51	51	58	56	57
Leavers total	54	54	54	54	54
Net Supply (Shortfall)	**(3)**	**(3)**	**4**	**2**	**3**
Scenario 1 - Agreed					
Cancer Centres	3	6	3	2	3
Brain Injury Unit		5			
LHSCG's	1	1			
PFA	3				
Current Vacancies	21	21			
Scenario 1	*28*	*33*	*3*	*2*	*3*
(4% increase in workforce)					
Total over (under)	***(31)***	***(36)***	***1***	***0***	***0***
Scenario 2	*18*	*18*	*18*	*18*	*18*
(13% increase in workforce)					
Current vacancies	*21*	*21*			
Total over (under)	***(42)***	***(42)***	***(14)***	***(16)***	***(15)***
Scenario 3					
(25% increase in workforce)	*34*	*34*	*34*	*34*	*34*
Current vacancies	*21*	*21*			
Total over (under)	***(58)***	***(58)***	***(30)***	***(32)***	***(31)***

From the above it can be clearly concluded that demand outweighs supply. In considering even only the areas of confirmed investment (Scenario 1) in physiotherapy services over the next five years, if the current trend remains unchanged, there is a projected shortfall of 66 within the workforce by year 5. This increases to 129 (after 5 years) if investment at 13% growth is achieved and is significantly greater (shortfall of 209) if resources become available to enable a 25% growth in staffing.

7.4 Sensitivity Analysis

A number of sensitivity scenarios are presented below to review their impact on the projected shortfall figures above :

- ***A Increased % of UU graduates entering the HPSS workforce (80%)***

  If the HPSS can continue to attract a greater percentage (e.g. 80%) of UU graduates into the HPSS on graduation, at the levels indicated in 2001, an additional 67 therapists would be available in the workforce over the 5 year period.

- ***B Increase level of uptake of Masters Fast Track Course by NI Graduates (70%)***

  If funding becomes available for the Master Degree course (from 2003) it is likely that a significantly higher % of students would be recruited from NI and would remain in the workforce on completion of their course. At 70% uptake by NI students (from 2003), an additional 19 therapists would be available in the workforce.

- ***C Reduction in number of leavers from the workforce (by 30%)***

  If the HPSS was to be able to reduce by 30% the number of therapists leaving the HPSS (for reasons other than retirement), an additional 45 therapists would be available in the workforce.

- ***D Increase number of graduate places at UU by 5 per annum UU***

  If the number of places at UU is increased by 5 per annum from September 2002, an additional 3 therapists per annum (based on current average graduate numbers entering HPSS on graduation) would be available from 2006.

The net impact of the total of the above would be to provide an additional 134 Physiotherapists within the workforce

8. RECOMMENDATIONS

A number of recommendations are now presented based on the key findings outlined in the report. The main focus of the recommendations is to address the projected shortfall in therapists over the next 5 year period.

Increase the number of students taking up posts in NI after graduation – Target 80% of graduates:

- It is recommended that Trusts should project their workforce requirements for the year ahead and recruit from final year UU students, commencing the process early (prior to graduations) in November / December. This will mean Trusts may also have to review their skill mix and consider recruiting to additional junior grade posts to secure more qualified Physiotherapists within the workforce. (It is acknowledged that a number of Trusts have already put in place early recruitment procedures in an attempt to recruit graduates). The funding implications of this will require further discussion.
- Trusts should review their skill mix to explore how Senior II posts may be developed, to provide career progression opportunities for basic grade staff and to ensure staff obtain the skills required for Senior I level posts. The funding for additional Senior II posts is acknowledged as an issue in achieving the above.
- A follow up to the focus group work with 4th year UU students should be undertaken to provide further information about how to attract more graduates into HPSS.

Clinical Placements:

- A profile of clinical placements within all Trusts should be collated to review current levels of provision. Support and funding required within Trusts to facilitate clinical placements should also be reviewed (i.e. reviewing the need for additional clinical tutor posts).
- Accommodation planning within Trusts should take account of the need to provide adequate space to facilitate students on placement.

Additional Student Places:

- The Department should review if discussions should be taken forward with UU to increase the number of undergraduate places at UU.
- The Department should review if funding should be made available for appropriate NI graduates to gain access to the fast Track Masters Degree Course at UU.

Attracting other qualified Physiotherapists into the workforce:

- The Department should explore the potential for a return to practice initiative by assessing levels of interest through local advertisement.
- The Department should seek to provide information on opportunities within NI for NI students who are currently studying in GB. This should be co-ordinated regionally.

Retention of current workforce:

- Further work is required to identify initiatives that will lead to the retention of therapists within the workforce. This will include incentives to encourage staff , who may be

considering retirement, to continue to contribute at some level to HPSS physiotherapy services. There was also a strong view from the project group that the introduction of initiatives such as link grade progression would have a positive impact on retention of staff.

- The Department should take forward the development of the physiotherapy clinical specialist and consultant roles to acknowledge high levels of clinical expertise within the profession and remunerate accordingly.
- The Department should review how Trusts are using mechanisms, such as the Enabling Agreement, in addressing recruitment and retention issues amongst the physiotherapy workforce.

Continuing Professional Development Opportunities

- The Department should take forward initiatives to enhance the continuing professional development opportunities for Physiotherapists. This will include developing a regional strategy to identify training and development needs, identifying protected time for CPD and investment in specialist courses to be provided locally. The development of a regional centre for CPD for PAMS should be taken forward, which meets the needs of the physiotherapy profession.

Unqualified / support staff

- Work needs to be taken forward to support the development of the role of physiotherapy assistants. This includes regional support to make provision for opportunities to develop the skills of assistants to NVQ level 3 and local providers considering how the role of unqualified staff can be developed to assist in addressing demands within the current service.
- The provision of administrative and IT support to therapists needs to be further reviewed by employers, given the poor levels reported by participants in the workforce review.

Further Review of the Workforce

- The project group should be convened on an annual basis to review the supply and demand assumptions and to update the workforce plan for Physiotherapists.
- Further work needs to be commissioned by the Department to review in more detail the impact of family friendly policies / career breaks on the workforce

9. CONCLUSION

This physiotherapy workforce review can only be viewed as the starting point, or a baseline for further work to be taken forward. This includes the development of an action plan to take forward the recommendations outlined above and further discussion to consider the implications of the workforce trends presented. The models presented in the report will need updated and refined on a regular basis to continue to inform decision-making and priorities concerning the investment in the HPSS physiotherapy workforce over the next years.

APPENDICES

I – REFERENCES

II – PROJECT GROUP MEMBERS

III – KEY INFORMANT INTERVIEWS

IV – PHYSIOTHERAPY STAFF PROFILE BY TRUST

APPENDIX I

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APPENDIX II

Project Group Members:

D Bingham, DHSSPS
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J Cairns, DHSSPS
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D Jeffrey, DHSSPS
C Kelly, DHSSPS
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L Cavan, Newry and Mourne HSS Trust
S Prenter, Sperrin Lakeland HSS Trust
S Magee, United Hospitals HSS Trust
P McAleese, Ulster Community and Hospitals HSS Trust
C Rosen, North and West Belfast HSS Trust
K McMaster, Causeway HSS Trust
J Johns, Belfast City Hospitals HSS Trust
P McCoy, University of Ulster
J Martin, Private sector
M Holmes, Staff side representative
M Barkley, Belfast City Hospital HSS Trust
J McCusker, Eastern Heath and Social Services Board
J Muston, Beeches Management Centre

APPENDIX III

Key Informant Interviews

V Quinn, Altnagelvin Hospitals HSS Trust
R Malcolm, Down Lisburn HSS Trust
B Beattie, Craigavon HSS Trust
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S Prenter, Sperrin Lakeland HSS Trust
S McGee, United Hospitals HSS Trust
S Moran, United Hospitals HSS Trust
P McAleese, Ulster Community and Hospitals HSS Trust
C Rosen, North and West Belfast HSS Trust
K McMaster, Causeway HSS Trust
J Johns, Belfast City Hospitals HSS Trust
P McCoy, University of Ulster
J Martin, Private sector
K Fullerton, Belfast City Hospital HSS Trust
H Mills, Sperrin Lakeland HSS Trust
C McIlroy, Armagh and Dungannon HSS Trust
A Glasgow, Greenpark HSS Trust
R Fox, Royal Group of Hospitals HSS Trust
J Davidson, Mater Hospital HSS Trust

APPENDIX IV

Physiotherapy workforce review

Dec-01

Number of Physiotherapists split by Trust

	Count	WTE
Belfast City Hospital Trust	46	38.76
Green Park Trust	61	53.66
S & E Belfast Community	37	24.75
Ulster Community & Hospitals Trust	76	58.56
Royal Group Hospital Trust	74	64.68
Mater Infirmorum Hospital	17	15
N & W Belfast Community	33	19.72
Lisburn & Down	58	48.35
Causeway	30	22.36
United Hosp Group	81	69.21
Armagh and Dungannon	28	23.05
Craigavon Area Hospital	56	45.88
Newry & Mourne	25	21.27
Altnagelvin HSS Trust (Hospital)	38	34.66
Foyle HSS Trust (Community)	2	2
Sperrin/Lakeland HSS Trust	25	22.73
Group Total	687	564.64

Number of physiotherapy support staff split by Trust

	Count	WTE
Belfast City Hospital Trust	11	7.22
Green Park Trust	14	12.34
S"& E Belfast Community	6	4.23
Ulster Community & Hospitals Trust	11	10.12
Royal Group Hospital Trust	10	8.63
Mater Infirmorum Hospital	1	1
N & W Belfast Community	7	5.33
Lisburn & Down	9	6.09
Causeway	8	6.58
United Hosp Group	19	14.29
Armagh and Dungannon	7	6.42
Craigavon Area Hospital	9	8.6
Newry & Mourne	3	1.04
Altnagelvin HSS Trust (Hospital)	7	7
Sperrin/Lakeland HSS Trust	5	2.66
Group Total	127	101.55

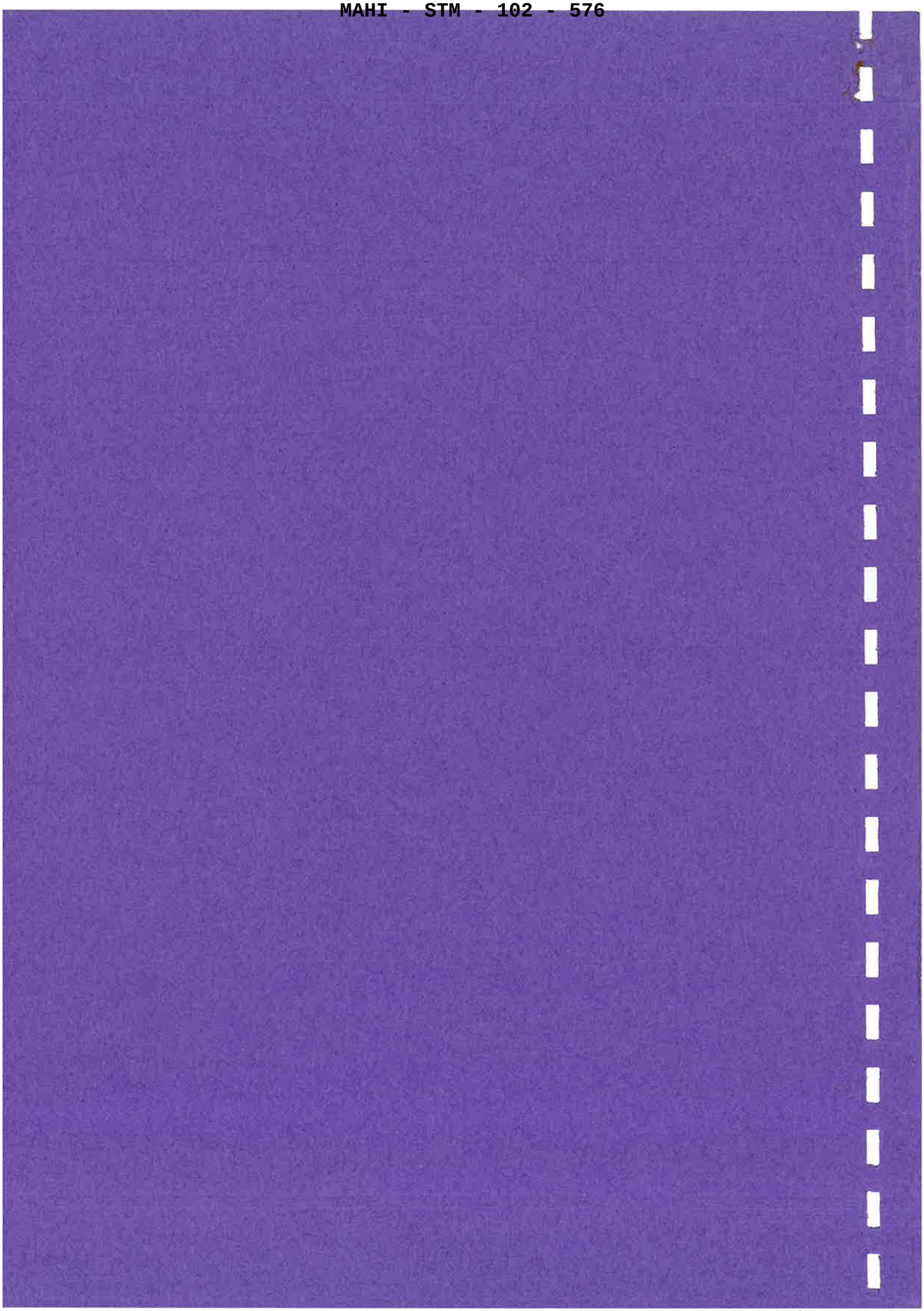
Number of Physiotherapists split by Trust by grade

Dec-01			
		Count	WTE
Belfast City Hospital Trust	SUPT PHYSIOTHER 1	1	1
	SUPT PHYSIOTHER 3	5	4.58
	SNR PHYSIOTHER 1	20	14.1
	SNR PHYSIOTHER 2	8	7.08
	PHYSIOTHERAPY	12	12
	Group Total	46	38.76
Green Park Trust	SUPT PHYSIOTHER 3	10	9
	SNR PHYSIOTHER 1	26	21.05
	SNR PHYSIOTHER 2	15	13.82
	PHYSIOTHER (GRAD ENT)	9	8.79
	AREA PHYSIOTHER 2	1	1
	Group Total	61	53.66
S & E Belfast Community	SUPT PHYSIOTHER 1	1	1
	SUPT PHYSIOTHER 3	1	0.83
	SNR PHYSIOTHER 1	28	18.18
	SNR PHYSIOTHER 2	7	4.74
	Group Total	37	24.75
Ulster Community & Hospitals Trust	SUPT PHYSIOTHER 1	1	1
	SUPT PHYSIOTHER 2	1	1
	SUPT PHYSIOTHER 3	3	2.5
	SUPT PHYSIOTHER 4	5	4.5
	SNR PHYSIOTHER 1	27	18.45
	SNR PHYSIOTHER 2	18	10.86
	PHYSIOTHERAPY	21	20.25
	Group Total	76	58.56
Royal Group Hospital Trust	SUPT PHYSIOTHER 3	9	9
	SNR PHYSIOTHER 1	34	25.35
	SNR PHYSIOTHER 2	10	9.33
	PHYSIOTHERAPY	9	9
	PHYSIOTHER (GRAD ENT)	12	12
	Group Total	74	64.68
Mater Infirmorum Hospital	SUPT PHYSIOTHER 2	1	1
	SNR PHYSIOTHER 1	5	3.42
	SNR PHYSIOTHER 2	5	4.58
	PHYSIOTHERAPY	1	1
	PHYSIOTHER (GRAD ENT)	5	5
	Group Total	17	15

Number of Physiotherapists split by Trust by grade			
N & W Belfast Community	SUPT PHYSIOTHER 3	3	2.38
	SUPT PHYSIOTHER 4	1	1
	SNR PHYSIOTHER 1	25	13.69
	SNR PHYSIOTHER 2	4	2.65
	Group Total	33	19.72
Lisburn & Down	SUPT PHYSIOTHER 1	1	1
	SUPT PHYSIOTHER 2	1	1
	SUPT PHYSIOTHER 3	4	2.75
	SNR PHYSIOTHER 1	29	21.98
	SNR PHYSIOTHER 2	16	14.62
	PHYSIOTHER (GRAD ENT)	7	7
	Group Total	58	48.35
Causeway	SUPT PHYSIOTHER 1	1	1
	SUPT PHYSIOTHER 3	2	1.5
	SUPT PHYSIOTHER 4	2	2
	SNR PHYSIOTHER 1	14	8.83
	SNR PHYSIOTHER 2	8	6.03
	PHYSIOTHER (GRAD ENT)	3	3
	Group Total	30	22.36
United Hosp Group	SUPT PHYSIOTHER 2	1	1
	SUPT PHYSIOTHER 3	4	4
	SUPT PHYSIOTHER 4	1	1
	SNR PHYSIOTHER 1	42	32.29
	SNR PHYSIOTHER 2	22	20.34
	PHYSIOTHER (GRAD ENT)	11	10.58
	Group Total	81	69.21
Armagh and Dungannon	SUPT PHYSIOTHER 1	1	1
	SUPT PHYSIOTHER 3	3	2.72
	SNR PHYSIOTHER 1	18	13.75
	SNR PHYSIOTHER 2	6	5.58
	Group Total	28	23.05
Craigavon Area Hospital	SUPT PHYSIOTHER 1	1	1
	SUPT PHYSIOTHER 2	2	2
	SUPT PHYSIOTHER 3	3	2.56
	SUPT PHYSIOTHER 4	3	2
	SNR PHYSIOTHER 1	26	18.22
	SNR PHYSIOTHER 2	13	12.1
	PHYSIOTHERAPY	1	1
	PHYSIOTHER (GRAD ENT)	7	7
	Group Total	56	45.88

Number of Physiotherapists split by Trust by grade

Newry & Mourne	SUPT PHYSIOTHER 2	1	1
	SUPT PHYSIOTHER 3	2	2
	SUPT PHYSIOTHER 4	1	1
	SNR PHYSIOTHER 1	13	9.94
	SNR PHYSIOTHER 2	5	4.33
	PHYSIOTHERAPY	2	2
	PHYSIOTHER (GRAD ENT)	1	1
	Group Total	25	21.27
Altnagelvin HSS Trust (Hospital)	SUPT PHYSIOTHER 3	3	3
	SUPT PHYSIOTHER 4	2	2
	SNR PHYSIOTHER 1	16	13.49
	SNR PHYSIOTHER 2	5	5
	PHYSIOTHERAPY	12	11.17
	Group Total	38	34.66
Foyle HSS Trust (Community)	SUPT PHYSIOTHER 3	2	2
	Group Total	2	2
Sperrin/Lakeland HSS Trust	SUPT PHYSIOTHER 3	2	2
	SUPT PHYSIOTHER 4	1	1
	SNR PHYSIOTHER 1	13	11.73
	SNR PHYSIOTHER 2	4	3
	PHYSIOTHER (GRAD ENT)	5	5
	Group Total	25	22.73



Department of Health, Social Services and Public Safety

An Roinn Sláinte, Seirbhísí Sóisialta agus Sábháilteachta Poiblí

Review of the Dental Workforce

Final Report

November 2002

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Glossary of Abbreviations

BDA	British Dental Association
CDS	Community Dental Service
CPD	Continuous Professional Development
CSA	Central Services Agency
DHSSPS	Department of Health, Social Services and Public Safety
GB	Great Britain
GDC	General Dental Council
GDP	General Dental Practitioner
GDS	General Dental Services
HDS	Hospital Dental Service
PCD	Professions Complementary to Dentistry
NHS	National Health Service
PwC	PricewaterhouseCoopers
RGH	Royal Group of Hospitals
VDP	Vocational Dental Practitioner

I Executive Summary

Background

1.1 Workforce planning is an essential element in planning future provision in health services. Factors of both supply and demand for dental services are changing which makes it increasingly important that workforce planning takes place to prevent future projected shortages or surpluses.

1.2 The purpose of the dental workforce review is to predict:

- the deployment of dental staff and PCD over the next ten years;
- the factors which will impact on the delivery and development of NHS dental services over the next ten years; and
- predict trends for future undergraduate and postgraduate training needs.

1.3 This report details:

- an analysis of the dental workforce in Northern Ireland;
- an analysis of current and future recruitment and retention issues;
- a prediction of future demand and supply; and
- provision of recommendations on the dental workforce.

1.4 Our literature review showed that until quite recently limited workforce analysis had been undertaken in the UK. However work has now been ongoing in Scotland since 2000 and commenced in England and Wales in 2001.

1.5 The need to review the dental workforce was raised in the Oral Health Strategy Mid Term Evaluation in Northern Ireland and is effectively demonstrated by the House of Commons Health Committee which reporting on access to NHS dentistry in 2001 made the following key recommendations and statements:

- the problems encountered by the GDS were largely the result of a flawed remuneration system driving dentists out of the NHS;
- the need for a full NHS dental workforce review was urgent and overdue;

- health authorities have insufficient levers with which to persuade dentists to change their way of working or to undertake the type of treatment the health authorities want on the groups of patients that have the highest treatment need; and

- the problems are not minor and nor are they likely to be easily solved. Action is required urgently.

1.6 In addition the workforce is becoming increasingly made up of women and our model suggests that if current trends continue 50% of dentists working in GDS in Northern Ireland will be women by 2011/2012. Recent research in England has shown that 47% of women dentists were working part time which emphasises that total hours worked will be reduced. These and other issues such as plans to extend the roles of PCD further strengthen the need to look at this area.

Overall assessment

1.7 In order to effectively assess the workforce requirements over the next decade in the dental workforce a demand and supply model has been constructed for general dental practitioners in NI to quantify the potential mis-matches in demand and supply that may emerge over the medium term. There are a number of potential consequences of demand and supply mis-matches, the most common being unmet demand. That is where people are not treated, and waiting lists arise. Unmet demand is not the only potential consequence of demand and supply imbalances as, for example, existing suppliers may alter retirement plans in response to the wage adjustments resulting from supply shortages. In undertaking the study we sought to predict future workforce demand and supply issues by adopting a scenario approach to modelling general dental practitioners. The approach involved modelling three scenarios which are:

Low Scenario: Strong growth in private care

1.8 This scenario is based upon a sharply falling rate of population treatment reflecting a marked swing from NHS to private care. It is also marked by list sizes declining only modestly, reflecting private patients being treated by dentists leaving the NHS entirely, reflected in out-migration forecasts. This scenario is unlikely as any significant shift to private care is likely to enlist a more significant compensatory decline in list sizes.

Upper Scenario: Increased provision, reduced dentist pressure

1.9 This scenario is based upon population treatment shares declining only modestly in response to a shift into private care, list sizes however continue their long term trend and decline sharply over time based on historical declination rates and reflecting both more private dentist work and reduced working hours as more females train and part time hours become more common. Also in reflection of this improvement in working conditions, retirement rates also increase for both males and females.

Main Scenario: Increasing private care and achieving health targets

1.10 This scenario is based upon our considered opinion of the most plausible path of events. It reflects an increase in private work (to approximately 50% of work as opposed to the current 'feel' of around 40%) and an increase in females and flexible working conditions. In addition the decline in population treated (as a result of the move to private care) is offset to a large degree by improving health targets and hence an increasing number of NHS patients. Retirement rates are also set to increase slightly.

1.11 The main scenario (the most likely of the three scenarios) reveals a shortage of 41 dentists in 2012, a considerable amount. Notably the shortage is acute in the next number of years, reflecting retirement patterns in males, which in reality may not transpire in order to equate demand and supply in the real world (which as stated earlier must, at any point in time occur). Supply also 'levels' off after 2011 as those females who joined the dental workforce more recently start reaching retiring age.

1.12 Although slightly misleading, as considerable constraints exist to training more dentists, it is worth reflecting upon the necessary level of training required to equate demand and supply by 2012. The main scenario requires 30 VDPs to be trained annually and at least 40 dental students in the School of Dentistry.

1.13 The prediction of the future training requirements for the dental workforce was arrived at by working through distinct stages each of which is summarised below and provided in detail in the main body of the report. The summary of the stages analysed in the executive summary are aimed at providing some detail on the methodology adopted, the key findings and issues arising at each stage.

Description of Current Situation

1.14 The objective of this stage was to build up a profile of the current staffing levels and characteristics of the dental workforce in Northern Ireland through requesting information from trusts, health boards and the CSA. A review of key literature was also undertaken at this stage.

1.15 Definitions of Professions Complementary to Dentistry[1] (PCDs) and other dental grades used in this report are as follows:

[1] Sources – Workforce Planning for Dentistry in Scotland, 'A Strategic Review' September 2000 and Community Dental Services in Northern Ireland

- **Dental Hygienist**: work to the prescription of a dentist within a variety of settings. By law, they are required to register with the General Dental Council upon qualification, and are permitted to undertake a variety of procedures. They undertake a range of preventative clinical procedures, including scaling and periodontal (gum) treatments and fissure sealants. They are permitted to use local infiltration anaesthesia and provide oral health education. They may also take oral radiographs and provide oral health education. An intensive two-year programme is provided at the School of Dental Hygiene, located in the School of Dentistry. On successful completion of the course the Diploma in Dental Hygiene is awarded by Queen's University of Belfast.

- **Dental Therapist:** work to the prescription of a Dentist within the Community and Hospital Dentist Services. In the future, after change in the regulations, they may also be permitted to work in Dental Practice, also to the prescription of a Dentist. They are also required by law to register with the General Dental Council upon qualification. They may undertake simple fillings and extract deciduous teeth under local infiltration anaesthesia. They are also permitted to undertake a range of preventive procedures and provide oral health education. At present there is no provision for training dental therapists in Northern Ireland. Combined courses for therapy/hygiene of 27 months approximately are available in GB.

- **Dental Nurse:** Employed in all settings of dentistry. Clinical support is the main role, other functions include preparation of surgery and patient; admin; health and safety and contribution to quality. They also specialise to undertake tasks such as support of a dentist during sedation, oral health promotion, special needs and radiography. A two-year fulltime course is available at the School of Dentistry with other part time courses available at Belfast Institute of Further and Higher Education.

- **Dental Technician:** works to prescription of dentist. Responsible for the design and manufacture of custom made appliances. Specialist technicians usually have advanced qualifications. A Dental Technician may work in one or more of the following areas:

- Removable prosthodontics (dentures in plastic and/or cast metal alloys);

- Fixed prosthodontics (crowns, inlays, veneers, bridges);

- Orthodontics (oral appliances);

- Maxillofacial prosthetics and technology (construction of a wide variety of appliances which are used to treat patients with facial and intra-oral defects caused by traumatic injury or surgery.

A three-year full time course is available at the School of Dentistry.

- **Senior Assistant Technical Officer (SATO):** An unqualified dental nurse working in a health trust. Normally working in the trust over 15 years and were employed before it was essential that dental nurses were qualified.

- **Dental Services Manager:** Also known as Clinical director of Community Dental Services. The professional and managerial head of the community dental service within a trust. Responsible for strategic planning, needs assessment and operational issues, at a senior manager level and are involved in multiprofessional working. May have a clinical input depending on the needs of the service.

- **Oral Health Promotion Officer:** Responsible for the strategic development, implementation and review of oral health strategies in response to local and regional needs and policies. Has links with general health promotion. Involved in needs assessment, research and evaluation. Liaises on a multiprofessional basis.

- **Oral Health Educator:** Involved in the operational side of oral health promotion within the community. Plans, implements and evaluates oral health promotion programmes in response to local strategies.

- **Dental Health Co-ordinator:** May be responsible for a mix of strategic and operation issues within oral health promotion.

1.16 The table below summarises the dental workforce in Northern Ireland at February 2002. A number of the fields are asterisked indicating that staffing levels had to be estimated because staffing information was not readily available. This is true of PCD and particularly those working in GDS. Recommendations relating to the collection of staffing data have been developed to address issues of gaps in staffing and workload information and to ensure that the required information is available for future dental workforce planning.

Table 1.1: Summary of the Current Dental Workforce in Northern Ireland at February 2002

	General Practitioners	Hospital	Community	Total
Dentists	707	68	79	854
Hygienists	28.8*	0.7	5.5	35*
Nurses	1361*	44	122	1527
Therapists	0	0	7	7
Technicians	0	16	0	16
Total	**2068**	**128**	**208**	**2404**

Source: Various; trusts, health boards, CSA, GDP survey and DHSSPS

Notes: * The number of nurses is a grossed up estimate from the GDP survey. The number of hygienists attributed to the three streams of dentistry is estimated due to variants in working practice. The number of hygienists are not included in the totals within the above table.

1.17 The information provided in Table 1.1 is key as it provides the baseline for the modelling of the demand and supply scenarios and the prediction of the gap/surplus in the dental workforce developed later in this report.

Analysis of Current Situation

1.18 The objective of this stage was to analyse the baseline data collected at stage 2. However this on its own was not sufficient, surveys and submissions from professionals were also analysed. A workshop was held at the School of Dentistry and a presentation made to the Dental Practice Committee.

1.19 The analysis also indicated a number of important issues relating to retention some of which are detailed below:

- low morale in GDS among all groups of staff;
- dentists and hygienists increasingly moving towards more private working due to low NHS fee rates;
- dentists in GDS stating a preference for career breaks and early retirement;
- low morale in dental nursing and problems of retention specifically in GDS because of low pay and no career development opportunities; and
- low numbers of dental nurses undertaking the dental nurse course at the RGH remaining in dental nursing after qualifying and a high failure rate for dental nurses studying at further education colleges.

1.20 Retention difficulties for dental nurses and technicians reflect competition from other private sector organisations which can offer improved flexible working, enhanced pay rates and career development opportunities.

1.21 Dentists in GDS are increasingly moving towards a greater proportion of private working reflecting changes which have taken place already in England and Wales. Information provided by the CSA shows a 20% fall in average NHS list sizes over the 7 years from 1993 to 1999 which is a strong indication of the movement from NHS patients to private patients. In addition, increasing numbers of general dental practitioners are indicating an intention to leave the workforce through career breaks or early retirements.

1.22 Recruitment problems have also been highlighted across all three dental sectors with shortages of dentists and dental nurses being the 2 main areas identified. However problems are also being experienced in other areas such as attracting applicants for technician training.

1.23 CPD is a significant issue which is currently and increasingly going to impact on dentists and on the PCD. There is a requirement that all dentists should undertake 75 hours of verifiable and 175 hours of non-verifiable CPD every five years and there is a level of concern among dentists about how this will be funded. This will result in an increased demand for professional development opportunities to be provided by consultants and academics (this is dealt with in the supply section of this report).

1.24 A number of the issues highlighted above have been addressed later in this report when modelling demand and supply scenarios for the dental workforce are discussed. Other issues which impact indirectly on demand and supply have been dealt with through specific recommendations.

Workforce Implications of Service Change

1.25 This stage of the review identified the changes in services profile which were going to have the largest impact on demand and supply of the dental workforce over the next ten years.

1.26 The issues identified as impacting on demand are:

- Oral Health Strategy Mid Term Evaluation targets;
- aging population;
- reduced incidences of decay (except root caries);
- increased tooth wear;
- increase in root caries;
- increased public awareness of treatments;
- increase in domiciliary care which is more time intensive;
- increase in speciality services for children, learning disability, older people etc to meet growing unmet need; and
- hygienists moving towards working more with private patients and reducing inputs in other services.

1.27 Our analysis, data collection and discussions with the dental profession and PCD have also identified a number of important issues impacting on supply. Issues identified as impacting on supply are:

- increase in non NHS working- private dentistry;
- earlier retirement in the dental profession;
- decrease in numbers of dentists willing to own their own practices;
- increase in numbers of female dentists;
- increased part-time working and job share;
- increased role for Professions Complementary to Dentistry;

- increase in corporate bodies especially if GDC rules on ownership are relaxed;
- estimated that a significant number of those students training in GB return to NI;
- shortage of dental associates and dental nurses in GDS;
- lack of trained specialist dentists; and
- registration and qualification requirement for dental nurses.

1.28 All the factors above were discussed and agreed with the steering group before (where measurable) being factored into the scenarios predicting the future demand and supply of the dental workforce over the next ten years.

Forecasting the Dental Workforce

1.29 In forecasting the dental workforce a conceptual model was developed to forecast the dental workforce over the next ten years. Reflecting upon the current gaps in the data available the modelling procedure is based upon a core model for general dental practitioners. The model is based upon '5 fundamentals' which reflect all of the demand and supply factors that have been identified as potentially having an impact. The 5 fundamentals are as follows:

Demand

- List sizes; and
- % registered (% of population registered for NHS dental treatment).

Supply

- Training levels;
- Migration; and
- Retirement rates.

1.30 The 5 fundamentals are parameterised under three plausible scenarios for the dental workforce. The demand and supply balances are explored under each of the scenarios, with the main scenario being covered in more detail. Indicative estimates of potential training requirements are also made.

1.31 Although this stage recognises the problems in forecasting other sectors of dentistry some indicative estimates are made for hospital dentists, community dentists and PCD. The risks inherent in the forecasts made are also explored in some detail.

Key Recommendations

1.32 We have detailed below some of the key recommendations made in the report.

1.33 The DHSSPS should work with health boards, the CSA, the Dental Practice Committee and PCD to agree what staffing information should be provided on an annual basis given the gaps in staffing information identified in this review.

1.34 The DHSSPS should consider the introduction of similar incentive schemes to those proposed in Scotland to address current low morale with the aim of recruiting and retaining dentists in the NHS.

1.35 The DHSSPS should review the resource implications associated with any expansion of student dental training places and the resource and other problems associated with the provision of VDP training places.

1.36 The DHSSPS should undertake with health boards and the Northern Ireland Council for Postgraduate Medical and Dental Education an impact assessment of the implications of continuous professional development for dentists and PCD on dental services in Northern Ireland.

1.37 In relation to the forecasting model the DHSSPS should:

- reassess and update the model annually;
- expand the model to cover hospital and community dentists separately and set their factors separately by gathering the necessary data on the 5 fundamentals;
- attempt to move from list sizes to patients treated if possible;
- continue to project dental nurses demand on the basis of a nurse-dentist ratio but develop a supply side model by gathering data on the 3 supply side fundamentals; and
- attempt to split list/treatment sizes into 3 age bands as opposed to the current 2. These categories would be, children (under 18), adults (18-65) and elderly (over 65s).

Acknowledgements

1.38 We would like to take this opportunity to thank the steering group who have supported and advised us throughout this review and all the other people who have provided us with information, completed surveys and answered our numerous queries.

II Introduction

Background

2.1 The DHSSPS requires comprehensive current information on the dental sector workforce across Northern Ireland. The availability of such information will help inform the Department's planning and organisation of training for the dental workforce and facilitate service provision over the next 10 years.

2.2 Following a tendering process in December 2001 the DHSSPS commissioned PricewaterhouseCoopers to complete such a review of the dental workforce in Northern Ireland.

2.3 As a result a workforce planning exercise was undertaken by PwC which has culminated in this report which:

- predicts trends for future undergraduate and postgraduate training needs,
- analyses the deployment of dental staff; and
- identifies the factors which will impact on the delivery and development of NHS dental services over the next ten years.

2.4 The information included in this report will prove beneficial to the DHSSPS in the development of strategies that can assure the correct numbers of dental professionals and PCD are in place as well as working in the most effective way to offer maximum benefits to the overall healthcare model and optimise patient outcomes.

2.5 The total spend on all dental services (GDS, CDS and HDS) in the UK is approximately £3 billion of which the Government contributes about £1.5 billion. Expenditure in Northern Ireland by the DHSSPS on General Dental Services alone was £46.2 million for the financial year 2000/01.

2.6 In Northern Ireland an additional allocation of £500k for oral health strategy commenced in 1999/2000 and is recurrent over a 3-year period. However due to other priorities this was abated to £350k. The benefit of this additional funding is to be evaluated at the end of year 3.

Terms of Reference

2.7 The Terms of Reference for the review were as follows:

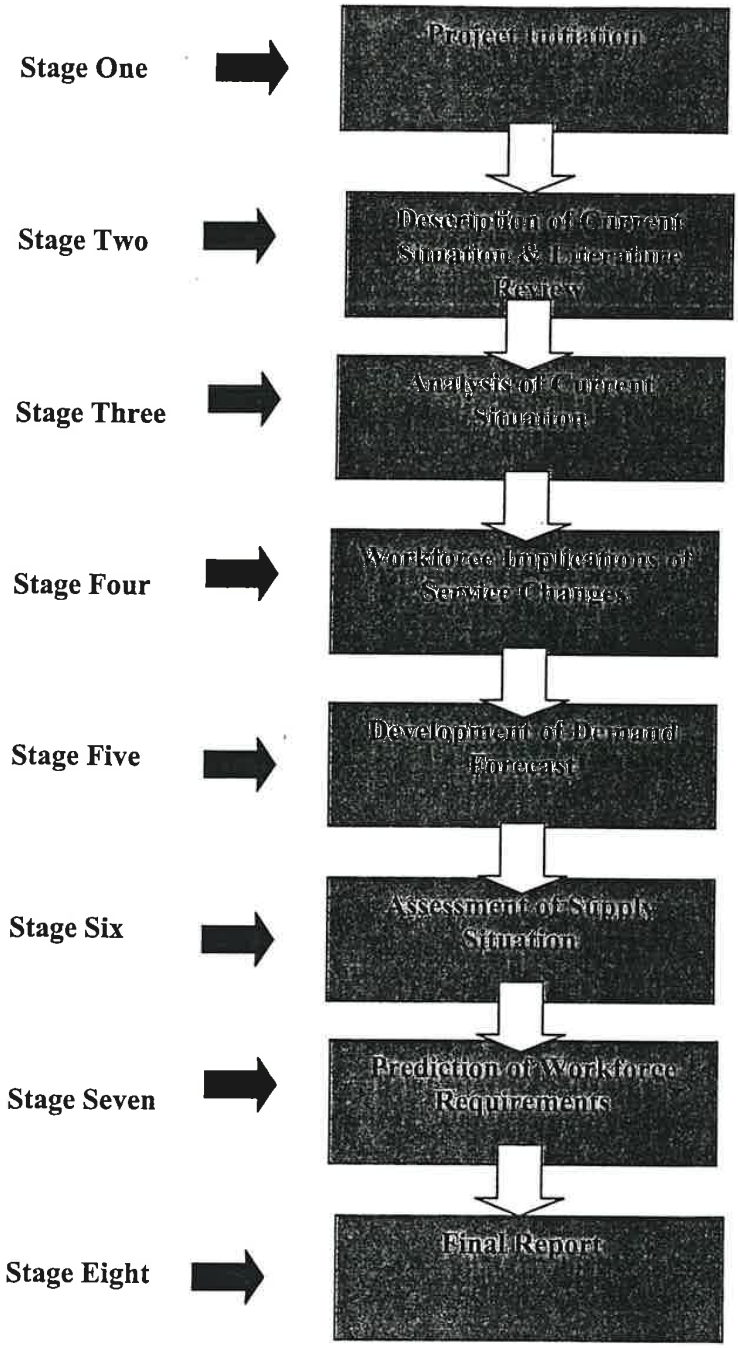
- Analysis of the dental workforce in Northern Ireland, including:
  - size, composition, sectoral distribution, age and gender;
  - working conditions and patterns;
  - continuing professional development commitments; and
  - specialist service commitments.
- Analysis of current and future recruitment and retention issues, including:
  - pay;
  - career development and specialisation;
  - career breaks/leaving the profession;
  - returnees; and
  - working arrangements.
- Provision of a prediction of future demand, including:
  - number of dental professionals required to meet service demands;
  - sectoral distribution including specialisation;
  - services demanding the skills of these professionals and the context within which these services are delivered; and
  - skill-mix options.

- Provision of recommendations whereby services could be commissioned and delivered optimally:
  - in secondary care;
  - in primary care;
  - across primary and secondary sectors; and
  - multidisciplinary working.

An Overview of Our Approach

2.8 An overview of our approach is shown in Figure 2.1 and in the following sections we outline the objectives, methodology and key findings of each of the key stages of our approach.

Figure 2.1: Overview of Our Approach



III Stage 1: Project Initiation

Objective

3.1 This stage involved discussing in detail the key tasks, timetable and reporting arrangements, as well as project controls and risks.

Methodology

3.2 Project initiation meetings were held between PwC and the DHSSPS in December 2001 and as a result of these meetings a Project Initiation Document (PID) was developed which was subsequently agreed at the first meeting of the steering group in February 2002.

Initiation

3.3 Discussions with the DHSSPS indicated that although approximately 90% of the dental workforce in Northern Ireland works in the NHS GDS very little information is available on staffing levels and staffing issues. It was therefore agreed that this sector should form the emphasis for much of the data collection and resource input to the study.

3.4 As a result a survey was developed with the DHSSPS and the dental professionals on our team to survey all general dental practitioners in Northern Ireland. The aim of this exercise was to gather information on:

- the current workforce;
- recruitment difficulties;
- factors impacting on demand; and
- supply factors influencing the supply of dentists and PCD.

3.5 It was also agreed that surveys of vocational trainees, hygienists and dental students would be undertaken to help predict future supply and career aspirations for these groups of staff. It was further agreed that the collection of new data and its analysis was the most appropriate area to concentrate resources for the project rather than an in depth literature review.

3.6 The rationale behind this decision was that:

- a number of the factors influencing demand and supply in Northern Ireland were viewed as different from the rest of the UK;
- very limited work on workforce planning had been undertaken in England and Wales until recently; and
- work in Scotland is still ongoing.

3.7 The output of this stage was a Project Initiation Document (PID) which detailed:

- lines of communication;
- project scope and guidelines, as well as project constraints and sensitivities; and
- the project timetable and key contacts.

IV Stage 2: Description of Current Situation

Objective

4.1 The objective of this stage of the process was to build up a profile of the current staffing levels and characteristics of the dental workforce across Northern Ireland.

Methodology

4.2 The methodology involved developing a data request form to be completed by all trusts, health boards and the CSA in Northern Ireland. The information obtained in the data returns provided much of the staffing information, which we required for hospital and community dentistry and regional information on general dental practice for analysis and modelling later in the project.

4.3 At this stage we also reviewed relevant key literature on dental services. The documents reviewed included:

- Access to NHS Dentistry, House of Commons Health Committee, The Stationery Office, London March 2001;
- Better Opportunities for Women Dentists, Dame Margaret Seward, Department of Health, London March 2001;
- Fundamental Review of Dental Remuneration, Sir Kenneth Bloomfield, Department of Health, December 1992 Modernising NHS Dentistry – Implementing the NHS Plan, Department of Health, The Stationery Office, Oct 2000;
- Modernising NHS Dentistry – Implementing the NHS Plan, Department of Health, The Stationery Office, Oct 2000;
- Toothousand, Aberdeen University/Scottish Council for Postgraduate Medical & Dental Education, 2001;
- Workforce Planning for Dentistry in Scotland: A Strategic Review, Interim Report and Recommendations, Scottish Executive Health Department, September 2000;
- Workforce Planning for Dentistry in Scotland: Characteristics and supply Dynamics of the Dental Workforce in Scotland, Scottish Executive Health Department, March 2002;
- Building the Way Forward in Primary Care, DHSSPS;
- Acute Hospitals Review Report, DHSSPS;
- Mid Term Evaluation of the 1995 Oral Health Strategy, DHSSPS;

- Oral Health Strategy, General Dental Services, Preliminary Consultation, DHSSPS, May 2001;
- Priorities for Action 2001/2002, DHSSPS, March 2001; and
- Oral Health Strategy, DHSS, 1995.

Findings from the data collection

4.4 In presenting the findings of the data collection we have divided the dental workforce into three distinct sections which are the:

- Hospital Dental Service;
- Community Dental Service; and
- General Dental Service.

4.5 We have summarised below some of the key findings from the data collection exercise. More detailed information on the three sectors is available in Appendices 1 to 3.

Hospital Dental Service

4.6 The staffing information on HDS was obtained from returns completed by health boards and community trusts. The figures were then validated with members of the steering group. At the steering group it was agreed that the figures for the hospital dentists should be taken from the information provided by Dr Kendrick showing the workforce at October 2001 because of discrepancies with some information provided by trusts. The information from trusts was used to formulate the dental nurse, PCD and other members of staff in the workforce.

4.7 The staffing levels for the hospital dental workforce for Northern Ireland is summarised in Table 4.1 below.

Table 4.1a: NI Hospital Dental Workforce

Job Title	Number of Staff in Post
Consultant Fulltime	10
Consultant Joint Appointment	16
Consultant Maximum Part-Time NHS	3
Consultant Fulltime University	1
Specialist Registrar	15
Senior Dental House Officer	16
Junior Dental House Officer	1
Non-consultant - Non Training	
Staff Grades	3
Hospital dental Appointments	2
Associate Specialists	1
Hospital Practitioner	5 sessions per week
Staff Grade	2 sessions per week
GDP	7.5 sessions per week
Senior Dental Officer	1.5 sessions per week
Community Orthodontist	2 sessions per week

Table 4.1b: Other Hospital Dental Staff

Job Title	No of staff	WTE in post	Vacant posts	Male	Female
Dental Hygienist	1	0.7	0	0	1
Dental Nurse	6	4.32	0	2	4
Principal Dental Nurse	1	0.5	0	0	1
Senior Qualified Nurse	10	9	0	0	10
Basic Qualified Nurse	28	24.25	0	0	28
MTO 5	3	3	0	2	1
MTO 4	2	2	1	1	1
MTO 3	7	7	0	5	2
MTO 2	4	4	0	2	2
MTO 1	0	0	1	0	0
Tutor	2	1.18	0	0	2
NVQ Assessors	2	2	0	0	2

Sources for Table 4.1a and Table 4.1b: Health Boards and Community Trusts. Figures were also validated by members of the steering group.

4.8 Appendix 1 provides a summary of the regional dental workforce for Northern Ireland.

Community Dental Service

4.9 The staffing information on CDS was obtained from returns completed by health boards and community trusts. The figures were then validated with members of the steering group and outstanding areas of concern were then validated with individual trusts before arriving at the final staffing figures for February 2002.

4.10 The staffing levels for the community dental workforce for Northern Ireland is summarised in Table 4.2 below.

4.11 Table 4.2 shows that:

- the vast majority of staff are dental officers and dental nurses;
- the main vacancies are for dental officers, dental nurses and hygienists; and
- the workforce is almost entirely female.

4.12 Appendix 2 details the validated breakdown of the community dental workforce by health board area and for Northern Ireland as a whole.

Table 4.2: Community Dental Workforce Reported at February 2002

Job Title	No of staff	WTE in post	Vacant posts	Male	Female
Clinical director	6	5	1	2	4
Senior dental officer	13	9.52	2	1	11
Community dental officer	59	37.5	4.3	5	54
Dental hygienist	7	2.11	3.3	0	5.5
Dental therapist	7	4.68	1	0	8
Senior dental nurse	10	9.11	1	0	10
Dental nurse	107	77.43	5	0	107
Oral health promotion	1	0.81	0	0	1
Oral health dietician	1	0.65	0	0	1
Senior health promotion officer	2	1.59	0	0	2
Dental services manager	1	1	0	0	1
Dental health educator	3	1.5	0	0	3
Senior assistant technical officer	2	0	0	0	2
Secretary	1	0	0	0	1
Clerical officer	3	2	0	0	3

General Dental Service

4.13 The information on the general dental workforce comes from information provided by the CSA and the survey of general dental service workforce in Northern Ireland. The survey was sent out to 693 principal dentists and 298(43%) were returned and analysed. The detailed information is contained within Appendix 3.

4.14 Table 4.3: below summarises the staffing profile of the workforce during January 2002.

Table 4.3 CSA Dental Profile January 2002

Data from the CSA by Dentist Group in General Practice	
Principal dentists and associates (number) M:F Principal dentists and associates (contracts)	671 421:250 (704 contracts)
Dental assistants	36
Vocational trainees	22

4.15 We also obtained the breakdown of principal dentists by Health Board area, the age profile and age profile by sex (see Appendix 3). The majority of dentists over 30 are male while the majority of those under 30 are female, reflecting the fact that the larger proportion of students obtaining dental places are female.

4.16 The age breakdown and Health Board analysis indicated that the survey was broadly representative in terms of age and geographical spread. We have summarised some of the key findings from the survey below:

- 18% of dentists were no longer accepting new health service patients;
- 26% of GDPs reported their workload to be excessive;
- 22% of respondents were planning to take a career break in the next five years;
- more than 80% were planning to retire early;
- the vast majority of practice owners are male;
- 40% of dental associates are now female;
- the vast majority of vocational trainees, dental hygienists and dental nurses are female;
- 60% of practice owners reported having recruitment difficulties;
- dental associates and dental nurses were the groups most difficult to recruit;

- 9.5% of practices reported having a vacancy for a dentist;
- 8% of practices reported having a vacancy for a dental nurse; and
- 50% of dental nurses in general dental practice are not qualified.

4.17 The survey also provided information on other non-dentist staffing levels in practices and we have summarised these below. Table 4.4 shows the numbers for 179 practices and we have then factored this up to 100% to try and get an indication of numbers of staff throughout Northern Ireland.

Table 4.4: Other staff working in general dental practice in Northern Ireland

Estimate Staff breakdown for 179 practice owners who responded to the GDP survey					
Staff Group	**Northern**	**Southern**	**Eastern**	**Western**	**Overall**
Dental Hygienist	22	9.2	31	10	72.2
Dental Nurses	186	145	235	92.5	658.5
Staff breakdown estimated for 100% of practices (based on 370 estimate provided by CSA)					
Staff Group	**Northern**	**Southern**	**Eastern**	**Western**	**Overall**
Dental Hygienist	45	19	64	21	149
Dental Nurses	384	300	486	191	1361

Note: Differing interpretations among respondents during completion of the surveys led to the inclusion of fractions in the numbers rather than whole numbers (as above). We should have whole numbers rather than fractions since this information is to represent numbers of staff and not WTE (Whole/ Full Time Equivalent).

4.18 Further analysis of the above suggests that there is double counting in the dental hygienist figures and possibly also in the dental nurse figures. Estimates provided by hygienists in Northern Ireland suggest there are 35 hygienists working in Northern Ireland across all dental sectors. The majority of these hygienists work within the GDS providing services to a number of practices. of practices, many on a session basis.

4.19 As there is **no accurate figure** available for hygienists by sector and the **information from the GDP survey is inaccurate** we will analyse hygienists on a regional basis using the estimate of numbers provided by hygienists.

Findings of the literature review

4.20 Government policy, long-term funding issues, oral health inequalities and workforce problems brought on by competition from the private sector are key to this workforce planning exercise as each impact significantly either on the demand for dental services and/or the supply of the NHS dental workforce.

4.21 Patients' expectations of the NHS dental service have often been unmet and there is confusion about how to access NHS dental care and lack of understanding of the complicated NHS charges and treatment options. The lack of an agreed formal policy matched to an oral health strategy has been raised by the BDA as a key issue which should be addressed. The Oral Health Strategy in Northern Ireland was developed in 1995.

4.22 The review of the dental workforce in Northern Ireland comes at a time when there is a recognised need to address this area. The DHSSPS mid term review of the 1995 Oral Health Strategy recommended a detailed analysis of the current workforce. Until the commencement of a review in England recently there had been no review since 1987. An interim report was completed in Scotland in 2000 and other similar reviews have taken place in Wales and the West Midlands.

4.23 In relation to workforce issues there does not appear to be sufficient qualified staff working in the service and there has been no recent workforce review in Northern Ireland.

4.24 Most general practitioners are increasingly spending more of their time working in the private sector. The reduction in the amount of time they spend working for the NHS is one of the major contributory factors affecting access to dental services for NHS patients.

4.25 The House of Commons Health Committee examined the situation early in 2001 and produced a report "Access to NHS Dentistry"[2] which made the following key recommendations and statements:

- the problems encountered by the GDS were largely the result of a flawed remuneration system driving dentists out of the NHS;
- the need for a full NHS dental workforce review was urgent and overdue;
- health authorities have insufficient levers with which to persuade dentists to change their way of working or to undertake the type of treatment the health authorities want on the groups of patients that have the highest treatment need; and
- the problems are not minor and nor are they likely to be easily solved. Action is required urgently.

[2] Access to NHS Dentistry, House of Commons Health Committee, The Stationery Office, London March 2001

4.26 In addition a recent survey, "Better Opportunities for Women Dentists"[3] has revealed that in England in 2000, 47 per cent of women dentists were working part time and in that same year more than 50 per cent of entrants to undergraduate courses were women. By 2011-2012 it is estimated that 50 per cent of the dental workforce in the UK will be women. This will be key to any workforce review in Northern Ireland.

4.27 There are also plans to register PCD with the GDC. If this involves an extension to their roles and a reduction in tasks required to be completed by a general dental practitioner then this will also have an impact on future dental workforce planning. The availability of initial and continuing training will also be a key consideration.

4.28 Oral health inequalities are likely to impact on future dental service provision, as areas of social deprivation where oral health is poor will need to be identified and targeted. In Northern Ireland levels of deprivation are high and oral health is poorer than the UK and Ireland.

4.29 The need for CPD and lifelong learning will need to be taken into account in future workforce planning. The dental profession now have a requirement to undertake 75 hours of verifiable and 175 hours of non-verifiable CPD every five years.

4.30 The Scottish Executive Health Department interim report on dental workforce planning identified a number of factors influencing demand and supply in Scotland. The demand and supply factors are summarised in Table 4.5 on the following page. Many of the factors were also indicated in the Northern Ireland study as demonstrated at stage 4 in this report and in Appendix 4.

[3] Better Opportunities for Women Dentists, Margaret Seward, Department of Health, London, 2001

Table 4.5: Factors influencing the supply and demand in Scotland

Demand factors	Estimated effect on demand
Trend of increased demand for all health services	Increased demand
Increasing proportion of the elderly in the population	Increased demand
Increasing number of individuals who have natural teeth	Increased demand
Increased average number of retained natural teeth	Increased demand
Increasing number of more complex treatments available	Increased demand
Increasing public expectations of dental treatments/services	Increased demand
Increasing proportion of children with untreated decay	Increased demand
Improvement in oral health	Reduced demand
Technological changes	Increase/reduction
Predicted decline in the number of registered dentists	Reduction in supply
Increased early retirements	Reduction in supply
Increased part-time working	Reduction in supply
Increased proportion of women in dental workforce	Reduction in supply
Reduction of UK dental graduates	Reduction in supply
Loss of dental workforce to other countries	Reduction in supply
Increase in non-NHS working	Reduction in supply
Working times directives, conditions of service, e.g. maternity leave	Reduction in supply
Dissatisfaction with working conditions	Reduction in supply
Lack of PCD	Reduction in supply
Reduction in number of hygienists being trained	Reduction in supply
Lack of funding for PCD training	Reduction in supply

4.31 The interim report was followed up this year with a report which provided details on the 'Characteristics and Supply Dynamics of the Dental Workforce in Scotland'. The report provides detailed information on the dental workforce, the changing patterns of work and the predicted numbers coming through vocational training. However, the report does not attempt to draw conclusions from the data, or to make recommendations on workforce planning. The next phase of the work is not planned to be completed until early 2003. It will involve published evidence on disease, demand, treatment and demographic trends and the extent to which these trends influence the annual flows in and out of the dental profession and allow projections of supply in the future.

Summary

4.32 Having undertaken a brief literature review and collated data on the current profile of the dental workforce in Northern Ireland (where possible) we then undertook a short analysis of current staffing in Northern Ireland. The analysis is detailed in the next section.

V Stage 3 – Analysis of Current Situation

Objective

5.1 The objective of the third stage was to analyse the data collected from Stage 2. The experience of the dental professionals in our team and the project steering group were invaluable at this stage. Table 5.2 below summarises the factors analysed at this stage.

Table 5.2: Summary of issues analysed under the current situation

Factors	Output
Problem areas to be addressed	*A list of the problems of the current workforce planning situation.*
Scope for improvement in workforce utilisation	*E.g. staffing provision in relation to workload, skill mix, and professions complementary to dentistry e.g. hygienists and dental therapists.*
Retention issues	*Issues and problems in relation to retaining staff within the DHSSPS dental service system.*
Recruitment issues	*Areas where health boards are experiencing difficulties in attracting general dental practitioners.*

Methodology

5.2 Reviewing the data exercise in isolation was not sufficient to inform this stage and all surveys and submissions received from the dental profession were analysed at this stage as well. We also organised a one-day workshop at the School of Dentistry in the Royal Group of Hospitals Trust, gave a presentation to the Dental Practice Committee and received their comments on the GDP survey and response to the demand and supply factors impacting general dental practitioners in Northern Ireland.

5.3 To try and canvass as large a group of dentists and the PCD as possible, surveys were undertaken of:

- general dental practitioners in Northern Ireland;
- vocational dental trainees;
- dental students; and
- dental hygienists.

5.4 Written submissions were also received from:

- dental technicians;
- dental nursing at the School of Dentistry in the RGH;
- dental hygienists; and
- the National Examining Board for Nurses.

Findings

5.5 The analysis of the current workforce information in relation to availability of information on staffing levels highlighted the following issues:

- good information held by trusts on the hospital and community dental workforces;
- limited data available on the GDS workforce;
- minimal information on sessions worked by location for hygienists;
- good information on dental technicians for the hospital workforce; and
- good dental nursing information for hospital and community dental services but limited for the GDS.

5.6 The analysis also identified some scope for improvement in workforce utilisation in the GDS workforce through:

- dental therapists assisting in GDS in the treatment of children and carrying out simple restorations; and
- clinical dental technicians involvement in prosthesis for patients.

5.7 Implementation of the above working arrangements will require GDC approval and this is unlikely to occur before 2005.

5.8 Analysis of retention issues in relation to the dental professionals also indicated a number of specific issues which are detailed below:

- low morale in GDS among all groups of staff;
- dentists and hygienists increasingly moving towards more private working due to low NHS fee rates;
- dentists in GDS stating a preference for career breaks and early retirement;

- low morale in dental nursing and problems of retention specifically in GDS because of low pay and no career development opportunities; and

- low numbers of dental nurses undertaking the dental nurse course at the RGH remaining in dental nursing after qualifying.

5.9 It is also envisaged that the proposed requirement that all dental nurses must be qualified will come into force as early as 2003. However in the view of dentists and dental nurses this is likely only to apply to new nurses entering the profession. As a result this should not require additional training places for those nurses currently working in dentistry who have substantial experience but do not have a registerable qualification.

5.10 However, the main issue for dental nursing is one of initially encouraging people to take up a career as a dental nurse and then once in post retaining them within dentistry. There is low morale and no career structure (particularly in GDS). Evidence provided by the School of Dentistry shows a high drop out rate and a high proportion of nurses who qualify no longer working as a dental nurse after qualifying; with general dental practitioners reporting increasing recruitment and retention problems for dental nurses working in GDS. This problem can only be addressed by making dental nursing a more attractive career choice and will require a review of pay and conditions and the current career progression structure. In addition, the effect of training nurses to improve retention will require some increases in the General Dental Services remuneration.

5.11 Recruitment issues were also highlighted across all three dental sectors. These are summarised below.

5.12 The GDP survey showed that there were significant recruitment problems in relation to general dental practitioner associates and dental nurses and to a lesser extent hygienists and dental assistants. The majority of vacancies reported were for dentists and dental nurses (see Appendix 3).

5.13 Returns received from trusts employing community dentists in particular, highlighted a lack of trained specialists to take up posts in community dentistry in areas such as special needs, paediatrics etc. Until three years ago community dental officers could undertake a Masters Degree at the School of Dentistry. However this facility to obtain specialist qualifications is no longer available and as a result opportunities to gain qualifications in a specialism have been reduced.

5.14 In the HDS vacancies in consultant posts are proving increasingly difficult to fill and applicant numbers are reported as low. (See Appendix 1).

5.15 There are also problems in attracting applicants to technician training and the course in the last two years has been short of the funded posts available.

5.16 Retention difficulties for dental nurses and technicians reflect competition from other private sector organisations which can offer improved flexible working, enhanced pay rates and career development opportunities.

5.17 Dentists in the GDS are increasingly moving towards a greater proportion of private working reflecting changes which have taken place already in England and Wales. In addition the majority of general dental practitioners are indicating that they are seeking to leave the workforce through career breaks or early retirements.

5.18 CPD is a very significant issue which is currently and increasingly going to impact on dentists and on the PCD. There is a requirement that all dentists should undertake 75 hours of verifiable CPD every five years and there is some concern among dentists about how this will be funded, particularly for independent contractors in the GDS. This will result in an increased demand for professional development opportunities to be provided by consultants and academics (this is dealt with in the supply section of this report).

Summary

5.19 A number of the issues identified in this section will not be directly built into the demand and supply stages of the workforce model because they do not directly impact on demand or supply. However it is important that the issues on post qualification training, continuous professional development or current terms and conditions of employment are recognised. Such issues indirectly impinge upon the choice of members of the dental workforce to see NHS dentistry as a medium to long term career option and remain a member of such a workforce. The issues are dealt with in Section VIII Conclusions and Recommendations.

VI Stage 4 – Workforce Implications of Service Change

Objective

6.1 The objective for stage four was to compare current and future service profiles to identify the implications of any change in terms of volume of service, types of services and pattern of delivery. Our research has shown that future service profiles will be influenced by a number of factors which include the:

- mid term evaluation of the Oral Health Strategy;
- dental workforce retention issues;
- expanding role of professions complementary to dentistry;
- changing dental disease patterns;
- access issues in relation to NHS dental services;
- population change and inequalities in provision of services; and
- changing patient expectations.

Methodology

6.2 The data analysis, surveys, presentations and written submissions together with an ongoing documentation review and research process throughout the course of this assignment were used to complete this stage of the project.

Findings

6.3 We have used the information gathered to summarise all the demand and supply issues which are impacting on the dental workforce in Northern Ireland. The issues impacting on demand are:

- Oral Health Strategy Mid Term Evaluation targets;
- an aging population;
- reduced incidences of decay (except root caries);
- increased tooth wear;
- an increase in root caries;
- increased public awareness of new treatment options;

- an increase in domiciliary care which is more time intensive;
- an increase in speciality services for children, learning disability, older people etc to meet growing unmet need; and
- hygienists moving towards working more with private patients and reducing inputs in other services.

6.4 Our analysis, data collection and discussions with the dental profession and PCD have also identified a number of important issues impacting on supply. Issues identified as impacting on supply are the:

- increase in non NHS working- private dentistry;
- earlier retirement in the dental profession;
- decrease in numbers of dentists willing to own their own practices;
- increase in numbers of female dentists;
- increased part-time working and job share;
- increased role for Professions Complementary to Dentistry;
- increase in corporate bodies especially if GDC rules on ownership are relaxed;
- estimate that a significant number of those students training in GB return to NI;
- shortage of dental associates and dental nurses in GDS;
- lack of trained specialist dentists; and
- new qualification requirement for dental nurses.

Summary

6.5 The demand and supply issues identified above were discussed at the steering group meeting held on the 21 March 2002. The discussion was used to obtain the steering group consensus on which demand and supply issues are:

- relevant;
- likely to result in a increase/decrease in demand or supply;
- likely to have a low, medium or high impact; and
- measurable.

6.6 The result of the discussion is provided in more detail in the tables in Appendix 4. The framework provided from this analysis was used to model the impact of the issues on the demand forecast for dentists and the forecasted supply situation. The assessment of the demand and supply situation is dealt with in stages 5 and 6 of our approach.

VII Forecasting the Dental Workforce

Objectives

7.1 In order to effectively assess the workforce requirements over the next decade in the dental workforce a demand and supply model has been constructed to quantify the potential mis-matches in demand and supply that may emerge over the medium term. It is worth indicating at the outset that in reality, in any given time period demand and supply will *always* be met, any shortage of supply will equate to under provision or 'un-serviced' demand.

7.2 The objectives of this demand and supply model are threefold:

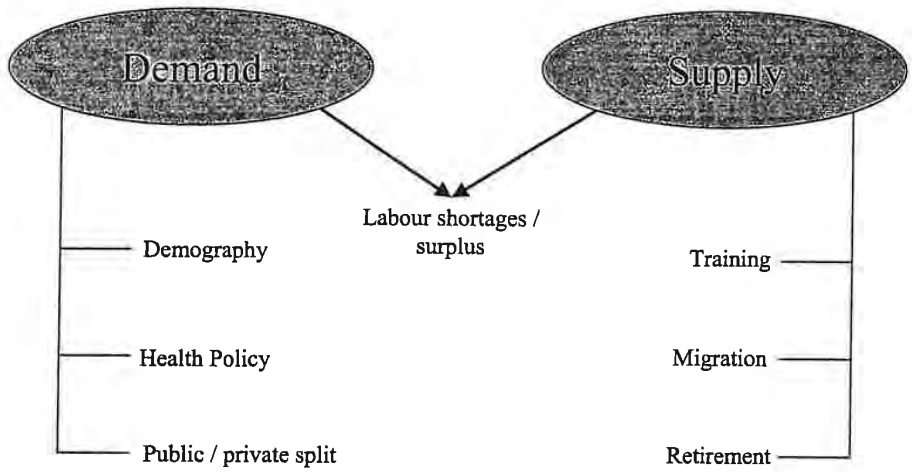
- to quantify the levels of demand and supply in the dental workforce over the next 10 years;
- to identify the drivers of demand and the monitoring information required to effectively assess workforce requirements; and
- to produce a model that is flexible and updateable in the future and not time limited.

7.3 With these objectives in mind the data collected has been translated into a spreadsheet-based model that has been used to produce the results presented in the sections that follow.

Conceptual Model

7.4 The figure below depicts conceptually what the modelling exercise is attempting to quantify:

Figure 7.1: Conceptual Model



7.5 The list of demand and supply factors presented are indicative and a fuller discussion of each 'side' of the relationship is given later.

7.6 In order to parameterise this model the following steps are necessary:

- quantify the current picture; and
- determine the demand and supply indicators/drivers.

7.7 Each of these steps is covered in more detail in the sections below.

Quantifying the current picture

7.8 Considerable work has been required to fully quantify the existing dental workforce; official records and sources have been supplemented by the GDP survey reflected on in sections 2 to 6 of this report. The table below covers the current picture and as such represents the starting point from which the model has been developed.

Table 7.1: Current (2002) Dental Workforce

	General Practitioners	Hospital	Community	Total
Dentists	707	68	79	854
Hygienists	28.8*	0.7	5.5	35*
Nurses	1361*	44	122	1527
Therapists	0	0	7	7
Technicians	0	16	0	16
Total	**2068**	**128**	**208**	**2404**

Source: Various; trusts, health boards, CSA, GDP survey and DHSSPS

Notes: * The number of nurses is a grossed up estimate from the GDP survey. The number of hygienists in GDS estimated and due to not being able to attribute hygienists to the three streams of dentistry, the number of hygienists are not included in the totals within the above table.

7.9 The table demonstrates the following key points from a modelling point of view:

- incompleteness of data represents a problem and thus complicates the forecasting approach; and
- the relatively small numbers in many of the categories makes formal modelling techniques both unreliable and unhelpful.

7.10 As a result the basis upon which the model has been developed for this report is to parameterise the general practitioners stream of the workforce and, by keeping the relationship of other elements of the workforce constant (relative to the number of general practitioners) some indicative estimates of the other streams and PCD can be arrived at.

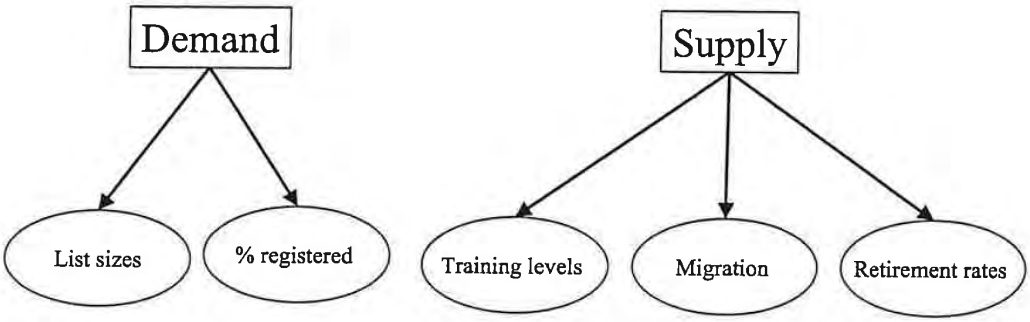
7.11 Keeping the share of, for example, hospital dentists to general practitioners has a number of drawbacks as the demand and supply factors may differ. However, the development of the methodology to carry out such a projection remains a step forward and the recommendations section of this report will reflect on the necessary requirements to carry out projections for other streams of dentistry and PCD.

7.12 However, whilst the relationships are more complex than the constant share approach it is unlikely that, in the main, streams of the workforce move dichotomously. That is, if a workforce shortfall is projected for general practitioners it is unlikely that this will differ considerably for other sectors of dentistry, as the drivers of increased demand are likely to be similar. Some of the key issues facing both the hospital and community sectors are returned to later in this report.

Determining the supply and demand factors

7.13 Clearly a wide range of factors can influence the demand for and the supply of dentists and it is impossible to quantify all of them. From a statistical point of view it is important to determine which of the potential factors are likely to have significant effects and similarly which are likely to have somewhat less pronounced effects. After examining carefully the data available and assessing the demand and supply factors it has been possible to form an aggregate supply and demand picture based on 5 main factors, 2 demand and 3 supply. These so-called '5 fundamentals' form the building block of the model and perhaps more importantly provide a framework for gathering the necessary data to adapt and complete the existing model in the future. The 5 fundamentals are shown in the figure below.

Figure 7.2: Modelling framework: The 5 fundamentals



Factors influencing demand and supply

7.14 The 5 fundamentals are described in more detail below:

- *List sizes:* This refers to the average number of people registered with a dentist. In effect this translates to the average number of people under a dentists 'care' in any given year, data was provided for under 18s and over 18s separately. The types of factor affecting this include the proportion of private work carried out and the complexity of work. A more desirable, but unavailable measure, would have been the number of people treated each year as opposed to registered, though the two are likely to be strongly correlated. As such list sizes are a proxy for treatment rates;

- *% registered:* This figure translates to the proportion of the population, under 18 and over 18 separately, that are registered with a general practitioner. It is calculated by multiplying the number of general practitioners by the average list size and expressing it as a percent of the total population (for that age group);

- *Retirement rates*: This is set at a separate rate for each 5-year age band and separately for males and females. It is based upon a downward revised figure from the GDP survey (as responses to survey questions about prospective retirement ages can be largely aspirational);

- *Migration*: One of the most difficult sections of the model this figure equates to the net migratory movements in the dental workforce each year. Essentially the difference between people entering NI to practice dentistry and people leaving (though exiting NHS care totally into private work would also, for the purposes of modelling, constitute an out-migration). A ratio of the proportion of migrants that are male and an estimate of the age category of the net migration figure is also provided; and

- *Training:* The number of dentists training locally as a direct input to the supply side is also used in the model. This precise definition translates only to those who enter the general practitioner service each year and excludes those trained for other purposes or those who train outside NI (who would be picked up as in-migrants if they were to return to NI at a later date). It excludes those training who may enter other services within dentistry and those currently in training. In practice this means it translates to the number of dentists completing their vocational training year and hence are ready to enter the labour market.

7.15 The five fundamentals described are used as inputs and as such are the building blocks for the model. Further details of the model are provided in Appendix 5.

7.16 It is useful, having understood the fundamentals of the model, to reflect upon the components that, at the time of compiling this report, were available to produce the general practitioners forecasts and to highlight the gaps in the provision/availability of the other components of the workforce, this is done in the table below.

Table 7.2: Availability of fundamentals data

	General practitioners	Hospital dentists	Community dentists	Hygienists	Nurses	Technicians	Therapists
Background Data							
Stock	Yes	Yes	Yes	Yes*	Yes**	Yes	Yes
Age details	Yes	Partial	Partial	Yes	No	Partial	No
Demand							
List sizes	Yes	N/A	N/A	No	No	No	No
% registered	Yes	No	No	No	No	No	No
Supply							
Retirement rates	Yes	Yes	Yes	No	Partial	Yes	Yes
Migration	Partial	No	No	No	No	No	No
Training	Yes	Partial Information	Partial Information	Yes	No	Yes	No

* Not available across streams of dentistry
** Estimated via GDP survey

7.17 As the table suggests there are considerable gaps in the data to date, though it is likely that with further resource at least some of the gaps could be completed as the majority of data should, in principle, be possible to gather.

7.18 In terms of forecasting it is clear that both hospital and community dentists models could be produced in the future with more supply side data. It could be argued that forecasting nurses should continue to be calculated as a function of the ratio of nurses to dentists in each of the three sectors. However therapists, hygienists, technicians and indeed other occupations such as administration and educational roles should remain a matter of judgement until the total numbers rise above 50 after which a similar approach to other sectors may be usefully developed.

7.19 Having explored the 5 fundamentals approach to the modelling process it is worth examining the factors identified as potential demand and supply factors.

Demand factors

7.20 The table below provides a list of the factors and how they translate into the fundamentals. The list is drawn from the list discussed and agreed with the steering group.

Table 7.3: Factors influencing demand

Factors influencing demand	Model parameter effected
Oral Health Strategy targets	+ % registered
Increased tooth wear	- list size
Aging population	+ % registered
Public awareness	+ % registered
Increase in domiciliary care	Too small to measure
Increase in speciality services	Hard to predict
Impact of junior doctors hours	4 hospital dentists minimum as soon as possible
Hygienists moving towards private	Too small to measure

7.21 Each of these factors is explained in more detail below:

Oral Health Strategy targets

Description: Oral Health Strategy Mid Term Evaluation:

i. target for 5 yr olds with no caries experience should be raised from 45 to 50% by 2003;

ii. average number of teeth with caries experience to remain at 2.2 for 5 yr olds;

iii. average number of teeth with caries experience in 15 year olds should remain at 4.0 by 2003;

iv. target for sound and untreated teeth per adult should increase from 15 to 16 by 2008;

v. target for adults with no remaining teeth should be reduced from 10% to 8% by 2008;

vi. target for adults with 18 or more sound teeth raised from 35% to 40%;

vii. increase in % of 0-2 yr olds registered with a GDP up from 24% to 30% by 2003;

viii. increase in % of 3-5 yr olds registered with a GDP from 62% to 68% by 2003; and

ix. maintenance of or increase in 6-17 yr olds and 18 yr olds and over registered with a GDP by 2003.

- **Effects:** +% registered, if targets for improved dental care are met then the number of people covered by the stock of dentists will increase as more of the population visit a dentist.

Increased tooth wear

- **Description:** More and more complex treatments occurring due to increased toothwear.

- **Effects:** - list size, as more people require more extensive and complex tooth treatment, then the amount of work a dentist can carry out in any given period is likely to fall slightly and hence affect list sizes.

Aging population

- **Description:** Tooth wear problems of an aging population, retention of teeth into old age (more complex and expensive restorative care) and more complicated restorative treatment and greater demand for periodontal care.

- **Effects:** +% registered, as more elderly people require treatment then registration rates for the over 18 population will increase accordingly. Although elderly (over 65s) have not been treated separately in this model it would be useful to do, if list size data for the elderly age groups was available.

Public Awareness

- **Description:** Increased public awareness leading to:

  i. Increase in white (tooth coloured fillings).

  ii. Increase in all forms of cosmetic dentistry.

  iii. Increase in bleaching procedures.

  iv. Much greater awareness of dental issues and advanced treatment options.

  v. Increased dental need among a significant proportion of the population.

  vi. Dental costs perceived as high.

  vii. Increase in demand for convenience and out of hours work.

- **Effects:** +% registered, as people become more concerned about the state of their teeth then one might expect an increase in the proportion of the population seeking treatment.

Increase in domiciliary care

- **Description:** Impact will be small but will be increasing in General Dental Services and the community and hospital dental service.
- **Effects:** Too small to measure, currently there is little in the way of data for this quite specific feature of future demand and as such it is not currently factored into the modelling framework, it is not expected however to have significant effects over the short-medium term.

Increase in speciality services

- **Description:** Increase in speciality services for children, learning disability, older people etc to meet growing unmet need.
- **Effects:** Hard to predict, this factor is unlikely to be correlated with any driver that can be predicted and as such monitoring and historical patterns remain the best guide of future levels.

Impact of junior doctors hours on paediatric and oral surgery

- **Description:** Regulations associated with the Working Time Directive and restrictions on junior doctor hours mean the present staff in Paediatric Dentistry and Oral Maxillofacial Surgery cannot meet the regulations and targets from current numbers.
- **Effects:** 4 senior Dental House Officers, a precise figure as the exact implication is clear and exclusive to the hospital sector. In the longer term this would filter into a modelling framework via hospital list sizes.

Hygienists moving towards private

- **Description:** Demand increasing for hygienists more moving towards treating private patients reducing the number available to treat NHS patients.
- **Effects:** Too small to measure, the current number of hygienists is too small to accurately reflect the switch, though it may well mirror dentist changes.

7.22 In addition to the list above a number of other factors were discussed as potentially affecting demand levels but in discussion with the Steering Group these were excluded, these are as follows:

- very limited implant service available, not currently available nor currently funded under NHS provision;
- fluoridation of water supply; and
- some hygienists experiencing difficulty finding work in certain parts of the province.

Supply Factors

7.23 Similar to the demand factors above the table below shows the factors deemed, in consultation with the steering group, to have a potential impact on supply.

Table 7.4: Factors affecting the supply of the dental workforce

Factors influencing supply	Model parameter effected
Increase in private treatment	- list size, + out migration, -%registered
Earlier retirement	+ retirement rates
Decrease in practice ownership	Hard to predict
Increase in no. of female dentists	- list size, M/F ratio of migrants and new trained dentists
Increase in part-time working	- list size
Increased role for PCD	Hard to predict
Increase in corporate bodies	Hard to predict
Estimated 1/3 returnees	+ in migration
Shortage of nurses	Model result
Increased demand for health promoters	+ out migration, -list size
Registration of PCDs with GDC	Hard to predict
CPD for dentists	- list size

7.24 These factors are described in more detail below:

Increase in private treatment

- **Description:** As private treatments increase the NHS list size reduces to accommodate this.
- **Effects:** -list size, + out migration, -%registered, as the balance of work shifts from NHS to private, the number of NHS patients that can be treated diminishes and thus list size falls. In extreme cases ceasing to do any NHS work would constitute an out migration from the stock of dentists. It is worth remembering however that an increase in private work will lead to an at least partially offsetting effect in terms of reducing the percent of the population being treated under NHS contracts as more people use private care.

Earlier retirement

- **Description:** The GDP survey demonstrated high aspirations among dentists to retire early.
- **Effects:** + retirement rates, as equity rises it is believed that more dentists will retire before state retirement age. This is corroborated by evidence from our GDP survey. Though it is worth bearing in mind that this is somewhat

aspirational and in a market where shortages exist there is a strong incentive to delay retirement in the form of considerable earning potential and the additional factor of the growing reluctance of young practitioners to buy in to practice.

Decrease in ownership

- **Description:** Due to low morale and perceived low return on NHS contract rates there is a decrease in numbers of dentists willing to own an NHS practice.

- **Effects:** Hard to predict, although it is recognised that less dentists are willing to carry the risk of owning a practice, this is not possible to accurately predict and hence is not built into the assumptions.

Increase in number of female dentists

- **Description:** Increase in female dentists partly due to higher academic attainment of females at A-level.

- **Effects:** -list size, over the course of their working life, all other things being equal, females will treat less patients due to reduced working hours as a result of having children, though this effect is relatively minor. This is reflected in the model by adjusting both the male/female ratio of migrants and new trained dentists and reducing list sizes.

Increase in part-time hours

- **Description:** Increased part-time working and job share as the proportion of female dentists increases.

- **Effects:** - list size, almost identical in practical terms as increased female dentists this factor reduces list size directly as part-time dentists can treat less people. This is expected to become an increasing trend as people across Europe aim to work fewer hours and improve work/life balance.

Increased role for PCD

- **Description:** Potential for therapists and technicians to work in general practice and expansion of role of therapists and hygienists expected from July 2002.

- **Effects:** Hard to predict, this is an important area for future consideration. The inter-changeability between dentists and PCD remains a key issue in workforce planning. Representing shortages in the number of full time dentists however, remains a useful quantification of future requirements irrespective of who may be able to meet them.

Increased corporate bodies

- **Description:** Increase in corporate bodies especially if GDC rules on ownership are relaxed.
- **Effects:** Hard to predict, it is unclear how this will impact over the next decade and as such this is not incorporated into the modelling framework.

Estimated returnees

- **Description:** Estimated that a significant number of students undertaking VDP training in GB return to NI.
- **Effects:** + in migration, directly accounted for by adding in-migration as a net addition over the forecast period.

Shortage of nurses and changes in training requirements

- **Description:** Shortage of dental nurses across NHS in all sectors.
- **Effects:** Model results, not an obvious factor effecting supply this is a result of the model which quantifies shortages.

Increased demand for oral health promoters

- **Description:** Increased demand for health promoters.
- **Effects:** +out migration, as more dentists and PCD staff are used to perform education, teaching or advisory roles this constitutes a drain on their ability to treat people and hence reduces list sizes. Creating new full time posts leads to out migration from the supply in the dental workforce.

Registration of PCD with GDC

- **Description:** Registration of all groups of PCD with GDC.
- **Effects:** At present it is hard to predict the effect of this on supply although it may be expected that the registration of qualified nurses will impact on availability and training.

CPD for dentists

- **Descriptions:** Requirement for all dentists to undertake continuous professional development.
- **Effects:** - list size, the number of people a dentist can treat will decline very slightly as increasing hours are required in staff development courses, training or teaching.

7.25 In addition, as with demand, a number of other factors were outlined that may impact upon supply but were not considered appropriate at this time, these are listed below:

- CPD for all PCD staff will reduce time spent with patients;
- qualification requirement for dental nurses is unlikely to affect unqualified dental workforce currently working; and
- dental therapists numbers are low at 7 in NI as no training is provided.

Establishing Scenarios

7.26 The 5 fundamentals approach to the workforce model, in addition to the factors influencing demand and supply, are the building blocks upon which the actual model can be attached. Given the raft of factors and the scope for both measurement error and forecast error it is prudent to construct scenarios to model the effects of potential shifts.

7.27 Whilst it is possible to model many types of shift in the model parameters the scenarios presented in this report are plausible upper/lower scenarios in addition to the main scenario. Whilst these are not set to cover all possibilities they allow the eventuality of plausible shocks to be tested, insuring a risk security for workforce planning. It is worth stressing that each of the scenarios is based upon loosely plausible trends in the fundamentals, it is possible to make a case for each occurring. However the main scenario is constructed to represent, based on our research, the most plausible path for demand and supply. No change is made to the training input on the supply side as it is considered fixed at this current time.

7.28 The scenarios presented are as follows:

Low Scenario: Strong growth in private care

7.29 This scenario is based upon a sharply falling rate of population treatment reflecting a marked swing from public to private care. It is also marked by list sizes declining only modestly, reflecting private patients being treated by dentists leaving the NHS entirely, reflected in out-migration forecasts. This scenario is unlikely as any significant shift to private care is likely to enlist a more significant compensatory decline in list sizes.

Upper Scenario: Increased provision, reduced dentist pressure

7.30 This scenario is based upon population treatment shares declining only modestly in response to a shift into private care. List sizes however, continue their long term trend and decline sharply over time based on historical declination rates and reflecting both more private dentist work and reduced working hours as more females train and part time hours become more common. Also in reflection of this improvement in working conditions, retirement rates also increase for both males and females.

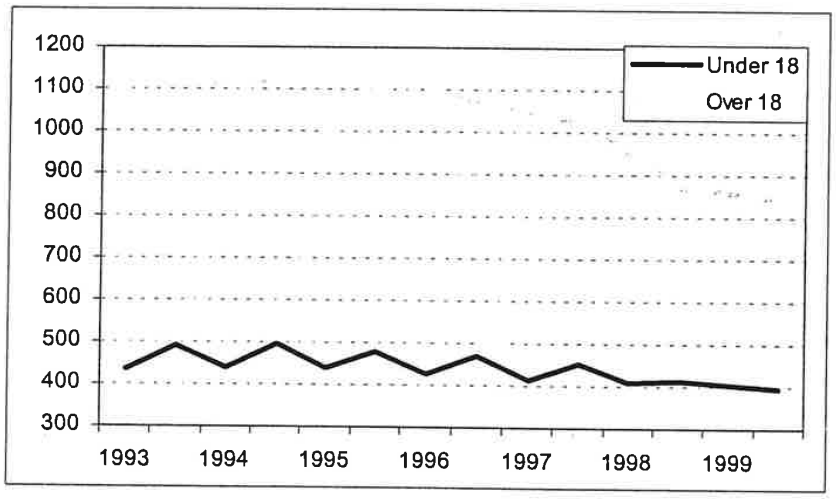
Main Scenario: Increasing private care and achieving health targets

7.31 This scenario is based upon our considered opinion of the most plausible path of events. It reflects an increase in private work (to approximately 50% of work as opposed to the current 'feel' of around 40%) and an increase in more females and flexible working conditions. In addition the decline in population treated (as a result of the move to private care) is offset to a large degree by improving health targets and hence an increasing number of NHS patients. Retirement rates are also set to increase slightly.

Parameterising scenarios

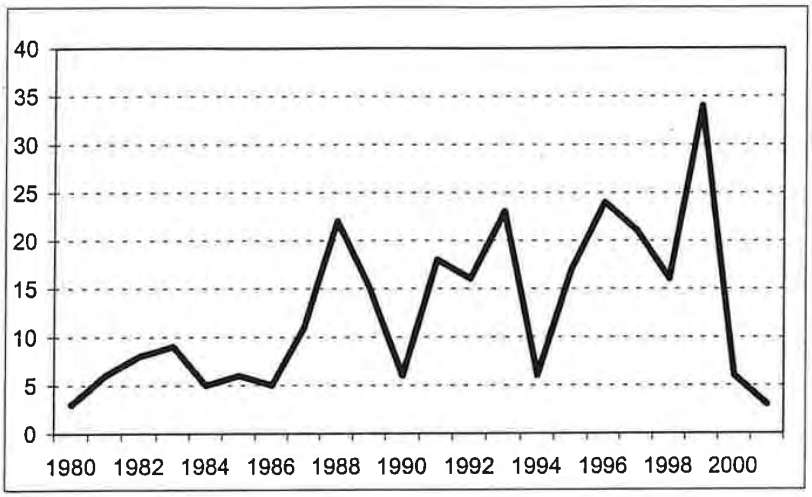
7.32 To establish the effects of each of the scenarios it is necessary to 'flesh out' the descriptions of the scenarios into real effects that can be plugged into the model. Often a sense of judgement must be applied, particularly when dealing with many different, and in some cases offsetting, effects on the model inputs some evidence is available in the form of historical data. The figure below reveals the path of list sizes over the last 6 years, one of the key building blocks and model assumptions.

Figure 7.3: Bi-annual list sizes, 1993-2001



7.33 The striking chart likely reflects a switch to private care. It was not possible to look at population treatment rates or numbers of dentists due to unavailability of data at the time. Similarly retirement rates and migration levels are also difficult to examine historically though the figure below does reflect, to the best of our knowledge, the patterns of in migration into general practice in NI, though obviously this excludes outflows and hence is of only marginal benefit.

Figure 7.4: In migration of dentists



7.34 The chart is striking because it reveals a sharp slow down in in-migration which on the face of it seems difficult to explain as in-migration has fall from over 34 two years ago to only 3 in 2001. It would appear however that 1999 was an exceptional year and a current trend of under 10 seems plausible. Although out-migration also occurs and there is no data on it, the general 'feel' is that it is on a much lower scale than in-migration.

7.35 Taking the scenario rationales and the historical assumptions the following figures are attached to the key model levers:

Table 7.5: Model levers

	Current	Low (2012	Main (2012)	High (2012)
Demand				
Average list size	1236	1132	1031	986
% <18 registered	58	55	56	58
% >18 registered	48	40	42	46
Supply				
No. of dentists trained	22	22	22	22
Retirement % 51-55 males	25%	25%	30%	35%
Retirement % 51-55 females	25%	25%	30%	35%
Migration	+7	0	+7	-5

Note: More detailed parameters of retirement categories and migration are further inputs to the model

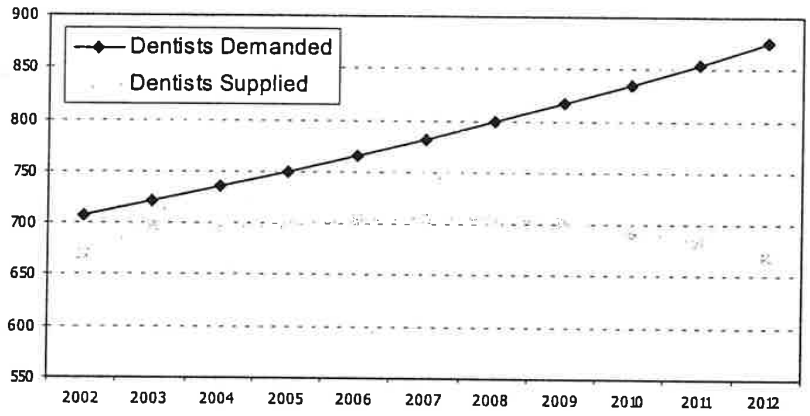
7.36 As stated above it is believed that all of the scenarios are, in principle, plausible over the next ten years.

'Completing the picture' - model results

7.37 The model uses the input assumptions (which are set as changes by 2012 and interpolated for the intervening years) to produce demand and supply estimates, each of which are described in detail below.

Upper Scenario

Figure 7.5: Demand and Supply: Upper Scenario

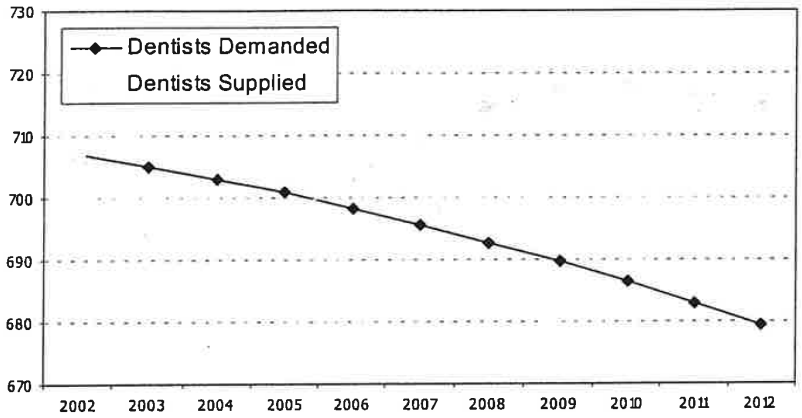


7.38 This scenario reveals a large shortfall by 2012 with an additional 204 dentists required, a significant amount. The out migration and retirement rates particularly affect this scenario with the supply of dentists beginning to fall after a peak in 2008.

7.39 The likely effect of such a scenario would be that the severe scarcity would attract in-migration or raise incomes sufficiently to increase working hours and lower retirement rates. As such this imbalance is likely to be met by increased supply as opposed to unmet demand.

Lower scenario

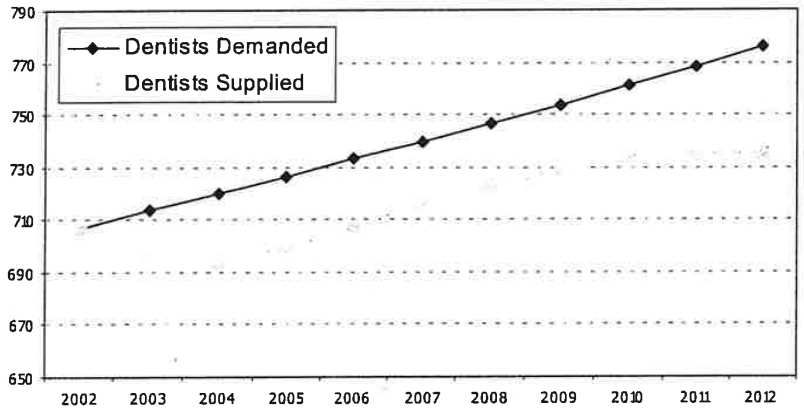
Table 7.6: Demand and Supply: Lower Scenario



7.40 This scenario reveals an over supply of dentists with 35 more dentists supplied than demanded. The declining level of population treatment is the main driver of this result. Interestingly it is only under such extreme falls in population treatment that a surplus is produced.

Main Scenario

Table 7.7: Demand and Supply: Main Scenario



7.41 The main scenario reveals a shortage of 41 dentists in 2012, a considerable amount. Notably the shortage is acute in the next number of years, reflecting retirement patterns in males, which in reality may not transpire as some dentists may not retire at the age they stated they would like to in the survey, as supply shortages will provide considerable demand for work. Supply also 'levels' off after 2011 as more females who joined more recently reach retiring age.

Workforce Requirements

7.42 Although slightly misleading, as considerable constraints exist to training more dentists it is worth reflecting upon the necessary level of training required to equate demand and supply by 2012. This is reflected in the table below:

Table 7.6: VDP Training requirements

	Additional required by 2012	Annual VDP training required 2012 (total trained over 10 years)
Current VDP training numbers	*22*	-
Lower Scenario	-27	15 (204)
Main Scenario	69	30 (286)
Upper Scenario	167	61 (457)

7.43 Of course reductions or increases in retirement rates and migration assumptions could also adjust the level of supply to the desired level, as such training should not be seen as the crucial, or only, lever in meeting supply differentials. The ability, given NHS shortages, of the private sector to expand to service unmet demand should also be borne in mind. The NHS could give consideration to use of the private sector to provide dental services on a temporary basis to meet dental need.

7.44 Discussions with the steering group have indicated that as there are 24 places on the VDP scheme currently, any proposed increase in VDP training numbers will have to address the funding issues involved.

7.45 In addition, the supply (excluding in-migration) of vocational dental practitioners is currently supplied by the current output of 36 dental students annually from the School of Dentistry. While an increase in the number of VDP places will mean that some students will no longer have to go to GB to undertake VDP training it is unlikely that this will, given current data, be sufficient to meet the increased output.

7.46 The required increase is difficult to predict without information on the current destinations of students after graduation. However, to meet increased demands for dentists in the community and hospital streams it is likely to require an output of at least 40 dental students and anywhere in the range of 40 to 50, depending on the capacity of NI to continue to attract back general practitioners who have trained elsewhere. Clearly more information is required on this area. However, in our view it is fair that the output of dental students would need to rise to at least 40 per annum to meet demand in the main scenario.

7.47 More importantly there are significant resource issues associated with any increase in training places for dental students. It is reported that the School of Dentistry cannot take more than 40 students using current staffing resources, facilities and equipment. Any decision to increase the number of dental students above 40 per annum will require a significant investment in terms of staff resources, facilities and equipment which will need to be quantified.

Towards other components of the workforce

7.48 As discussed earlier, it remains impossible to accurately gauge other sectors of dentistry (community and hospital) and PCD due to either too small numbers or insufficient data. By way of indicative estimates the share of each PCD and hospital and community dentists is held constant to produce a final demand estimate for each profession and stream, this is presented in the table below.

Table 8.5: Indicative estimates of final demand for PCD, hospital and community dentists

Component	Current annual training output	Additional required (2012) Net
Vocational Dental Practitioners	22	69
Hospital Dentists*	-	11
Community Dentists	-	8
Total Dental students	*36*	*88*
Nurses (total)	78	152
Hygienists (total)	5	3
Technicians (total)	5	3

Note: * Care should be taken when interpreting the table as net additional required is the increase in the *stock* required by 2012, without flows information (as available for general practitioners) it is not possible to gauge the level of training required to equate demand and supply

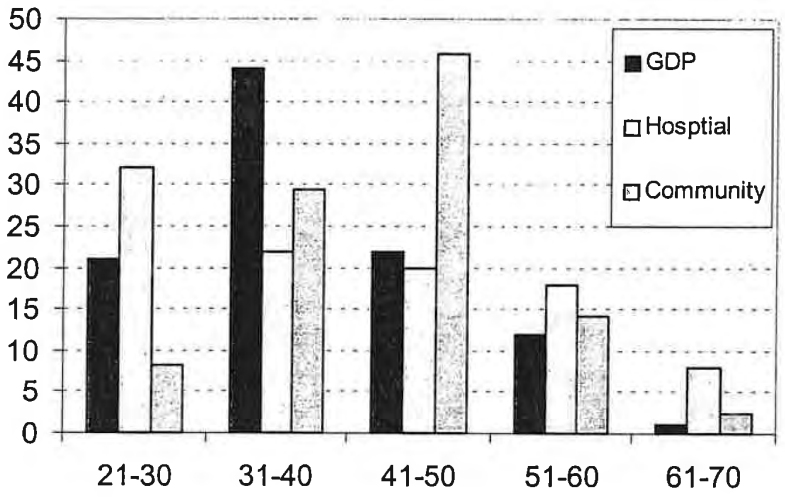
7.49 Clearly this falls some way short of an accurate indication of demand and should be treated with extreme caution, although the figures do indicate the existence of likely shortages, if not the actual level. In particular, the lack of information on supply side information such as migration patterns and retirement rates means that it is not currently possible to estimate the requirements for training necessary to offset the shortages as the final demand figure. For example, although the total number of nurses required in the main scenario by 2012 is 1679, only 152 greater than the level in 2001 this is not the full picture. Out migration (leaving the profession) is likely to be significant and as such training requirements would therefore be considerable.

Hospital and community factors

7.50 It is worth reflecting in more detail on some other factors likely to influence changes in the other sectors and PCD. A number of key factors that are likely to affect the community and hospital dentists differently from general practitioners are highlighted below:

- **Aging dentist population** - The age of hospital and community dentists is older than general practitioners as shown in the figure below. This is likely to increase the effect of retirement and hence put further pressure on the supply of dentists.

Figure 7.8: Age profile of dentists



- **Aging general population** - In addition the aging general population in particular will affect more community dentists in particular. The 60+ population is forecast to grow 11% by 2012, compared to a fall of 8% in the population of under 16s. This will increase pressure on community dentists who have a high proportion of elderly patients.

- **Relationship with general practitioners** - As the main scenario suggests with a shortage of dentists there may be additional demand on other dentists who provide treatment under the NHS and this may increase demand on hospital and community dentists.

- **Relationship between PCD's** - As indicated earlier, the increasing role of PCD is likely to increase their demand more than a constant share approach would suggest. This could be handled by increasing the ratio to levels of general practitioners, hospital / community dentists, though to determine the extent of any increase would require more historical information and work to ascertain.

- **Job responsibilities** – Hospital and community dentists are likely to spend a greater proportion of their time on tasks which are not direct clinical inputs such as oral health promotion, training and management. This makes list

size/treatment a more problematic measure to use in predicting demand and supply factors.

7.51 Despite the range of factors suggesting the problems with the constant ratio approach it remains fair to say that evidence of shortages in the general practitioner forecast model are *unlikely* to be offset by surpluses in other areas of dentistry. This is because many of the factors, such as demography, affect all streams of dentistry and indeed there are reasons to suggest that shortages may be more acute.

Understanding Risks

7.52 A number of risks exist, which are not explicitly modelled in the system, to the scenarios presented and some of these are summarised in the table below.

Table 7.8: Risks to the workforce projections

Upside Risks (more dentists required)	Downside Risks (less dentists required)
Population increases may be sharper in response to economic growth, particularly as economic growth will attract working age migrants, and hence more children. Increased dentists trained, has a knock on effect in the School of Dentistry where more staff and resources will be required. Increasing transfer of dentists into other activities, such as educational roles, will reduce the number of dentists available. Government policy may alter the number of dentists required if funding is provided to support more dental treatment.	Any reduction in the costs of private treatment may increase the number of people using private care and hence may reduce the demand for NHS dental care. Retirement levels in the model may well not turn out to be the case as high earnings potential may decrease retirement rates.

7.53 These risks would significantly alter the parameters set in the scenarios. As such these should be considered carefully and the model updated if any appear to be exerting significant pressures.

VIII Conclusions and Recommendations

Conclusions

8.1 The demand and supply model has produced a number of interesting findings. Broadly speaking there would appear to be under provision of dentists and that pressures, from a growing population more concerned about health, are increasing. It is likely that the shortage, given plausible assumptions, will translate to around 41 dentists by 2012. Increasing VDP training levels to 30 as soon as possible and the number of dental students to approximately 40 would help alleviate this situation. This is only one way, albeit the most plausible, of meeting demand levels, more in-migration and older retirement rates are also possibilities. The hospital and community sectors face similar demographic pressures, and the aging population is of particular concern for these sectors. It is not possible to quantify as precisely the expected shortfall in these streams however, due to data shortages.

8.2 The model has also produced a framework for future discussion on the dental workforce and should provide a methodology that can be revisited and updated in the future.

8.3 Following discussion of the implications model by the steering group, a series of conclusions and recommendations (by each profession) was also agreed:

Dentists/Dental Students/VDPs

8.4 Due to low morale and perceived low return on NHS contract rates there is a decrease in numbers of dentists willing to own a NHS practice and a significant move from NHS to private practice. In addition, aspirations among dentists of taking earlier retirement is also an issue for consideration.

8.5 The increase of VDP training levels to 30 and the number of dental students to approximately 40 as soon as possible would help alleviate under provision of dentists.

Therapists

8.6 Dental therapists numbers are low at 7 and there is no therapist training currently available within Northern Ireland. Consequently some therapists have migrated to other areas of the dental workforce in Northern Ireland e.g. health promotion.

8.7 In order to ensure expansion of the therapists' role within the dental workforce, the absence of training of therapists in Northern Ireland must be reviewed following the introduction of GDC regulations (as of 1st July 2002) allowing therapists to work in general practice.

Dental Nurses

8.8 Low morale exists in dental nursing across all sectors. Problems of retention exist specifically in GDS because of low pay and lack of career development opportunities.

8.9 In addition, low numbers of dental nurses are undertaking the dental nurse course at the RGH or remaining in dental nursing after qualifying. Although the course at the RGH is highly recognised professionally, the course only retained two nursing students this year out of nine places. More dental nurse students are choosing to undertake their qualification part time at a Further Education College.

8.10 It is also envisaged that the proposed requirement that all dental nurses must be qualified will come into force as early as 2003. This is likely only to apply to new nurses entering the profession and should not require additional training places for those nurses currently working in dentistry, who have substantial experience but do not have a registerable qualification. However, this may have a significant implication for those dental nurses who work unqualified in general dental practice.

8.11 Therefore issues exist in the area of dental nursing which must be addressed, given the fact that although the model says the total number of nurses required in the main scenario by 2012 is 1679, only 152 greater than the level in 2001, this is not the full picture. Out migration (those leaving the profession) are likely to be significant and as such training requirements are therefore considerable.

Hygienists

8.12 Demand is increasing for hygienists and as hygienists increasingly move with GDPs towards treating private patients, the numbers available to treat NHS patients will reduce.

8.13 The inter-changeability between dentists and PCD remains a key issue in workforce planning. However, representing shortages in the number of full time dentists remains a useful quantification of future requirements irrespective of who may be able to meet them.

8.14 It remains impossible to accurately predict required numbers of hygienists to be trained, due to the small numbers of hygienists within the workforce. Given the fact that the current training output is 5 per year, the model predicts that an additional 3 hygienists net should be trained by 2012.

Technicians

8.15 According to the data gathered on the current (2002) dental workforce, 16 technicians are working within the hospital dental workforce. Given the fact that the current training output is 5 per year, the model predicts that an additional 3 technicians net should be trained by 2012.

Recommendations

The DHSSPS should:

- revisit the workforce plan on an annual basis and update the model and its conclusions;
- having revisited the model, move from list sizes to treatments as a proxy for workload;
- undertake with health boards and the Northern Ireland Council for Postgraduate Medical and Dental Education an impact assessment of the implications of continuous professional development for dentists and PCD on dental services in Northern Ireland;
- review the terms and conditions of service and career structure for all staff working in dentistry with the appropriate professional groups to address the recruitment and retention difficulties identified in this review;
- consider the introduction of similar incentive schemes to those proposed in Scotland to address current low morale with the aim of recruiting and retaining dentists in the NHS;
- attempt to split list/treatment sizes into 3 age bands as opposed to the current 2. These categories would be, children, adults and elderly;
- work with health boards, the CSA, the Dental Practice Committee and PCD to agree what staffing information should be provided on an annual basis given the gaps in staffing information identified in this review;
- establish a central database to hold information (rather than information being held across the CSA, Boards etc).

Dental Students/VDPs

- work with Queens University Belfast (QUB) and the Department for Employment and Learning (DEL) to establish the annual intake of students (and the impact of expansion to maintaining 40 dental students per year in terms of staff resources, facilities and equipment which will need to be quantified);
- increase the number of VDP places to 30 as soon as practicable and review the resource and other problems associated with this provision with the Northern Ireland Council for Postgraduate Medical and Dental Education.

Therapists

- review the need to establish training of therapists in Northern Ireland following the introduction of GDC regulations and consider the planned expansion of therapists' role within the dental workforce.

Dental Nurses

- review the impact of the new training requirements and whether the career structure and remuneration will be sufficient to attract potential recruits into the dental nursing profession, and continue to project nurses demand on the basis of a nurse-dentist ratio but develop a supply side model by gathering data on the 3 supply side fundamentals;

- review where and how dental nurse training is delivered in the future and subsequently ensure retention until completion of the training/ qualification;

- consider the fact that although the model says the total number of nurses required in the main scenario by 2012 is 1679; this is only 152 greater than the level in 2001. However the impact of current recruitment and selection problems of dental nurses across all sectors in Northern Ireland will also need to be considered.

Hygienists

- review the current hygienists training output (5 per year) the model predicts that an additional 3 hygienists net should be trained by 2012; and

Technicians

- review the current technicians training output (5 per year) as the model predicts that an additional 3 technicians net should be trained by 2012.

Appendix 1:

Hospital dental workforce

EHSSB
The Ulster Community and Hospitals Trust

Job Title	Funded Posts	WTE Funded	No. of Staff	WTE in Post	Specialism	Vacant Posts	Gender	
							Male	Female
Consultant	3	3	2	2	OMFS	1	2	
Specialist Registrar	1	1	1	1	OMFS	0	1	
Registrar								
Senior House Officer	2	2	2	2	OMFS	0		2
House Officer	1	1	1	1	OMFS	0	1	
Other Dental Surgeons								
GDP (Sessional)								
Dental Hygienist								
Dental Nurse	1.5	1.5	2	1.5	OMFS	0		2
Principal Dental Nurse								
Senior Qualified Nurse								
Basic Qualified Nurse								
Senior Dental Officer								
Community Dental Officer								
Vocational Trainee								
Staff Grade	1	1	2	1	OMFS	0		2
Hospital Practitioner								
Consultant Jt/Appt (QUB/RGH)								
Associate Specialist								
Hospital Dental Technician (MTO 5)								
Hospital Dental Technician (MTO 4)								
Hospital Dental Technician (MTO 3)								
Hospital Dental Technician (MTO 2)								
Hospital Dental Technician (MTO 1)								
Tutor								
NVQ Assessors								

EHSSB

School of Dentistry. The Royal Group of Hospitals

Job Title	Funded Posts	WTE Funded	No. of Staff	WTE in Post	Specialism	Vacant Posts	Gender	
							Male	Female
Consultant	6	5.74	5	4.74	Restorative and Paed Den	1	5	
Specialist Registrar	5	5	5	5	Restorative Paed Dent Ortho		2	3
Registrar								
Senior House Officer	11	11	11	11	Rest Ortho Paeds Osurg/med		2	8
House Officer								
Other Dental Surgeons								
GDP (Sessional)	1.45	1.45	8	1.45		7 sessions	7	1
Dental Hygienist	1	0.7	1	0.7	All Depts.			1
Dental Nurse								
Principal Dental Nurse	1	0.5		0.5	Dental Nursing			1
Senior Qualified Nurse	9	9		9	Dental Nursing			10
Basic Qualified Nurse	25	24.25	28	24.25				28
Senior Dental Officer								
Community Dental Officer								
Vocational Trainee								
Staff Grade	2	2	2	2	Dental Hygiene, Oral Surgery		2	
Hospital Practitioner	2	0.1	2		Ortho		2	
Consultant Jt/Appt (QUB/RGH)	16	16	16	16	Rest. Paeds, Ortho Oral, Surg/Med, D. Micro	3	15	1
Associate Specialist	1	0.3	1	0.3	Adult Special Needs Paed. Dent		1	
Hospital Dental Technician (MTO 5)	1	1	1	1	Restorative Dentistry		1	
Hospital Dental Technician (MTO 4)	2	2	2	2	Restorative Dentistry		1	1
Hospital Dental Technician (MTO 3)	8	8	7	7	Restorative Dentistry	1	5	2
Hospital Dental Technician (MTO 2)	4	4	4	4	Restorative Dentistry		2	2
Hospital Dental Technician (MTO 1)	1	1			Restorative Dentistry	1		
Tutor	2	1.18	2	1.18	Dental Nursing			2
NVQ Assessors	2	2	2	2	Dental Nursing			2

WHSSB
Altnagelvin Hospitals Trust

Job Title	Funded Posts	WTE Funded	No. of Staff	WTE in Post	Specialism	Vacant Posts	Gender	
							Male	Female
Consultant	3	2.87	3	2.87			2	1
Specialist Registrar	2	2	2	2			2	
Registrar								
Senior House Officer	2	2	3	3			2	1
House Officer								
Other Dental Surgeons								
GDP (Sessional)								
Dental Hygienist								
Dental Nurse								
Principal Dental Nurse								
Senior Qualified Nurse								
Basic Qualified Nurse								
Senior Dental Officer			1	1				1
Community Dental Officer								
Vocational Trainee								
Staff Grade								
Hospital Practitioner	1	0.52		1		1		
Consultant Jt/Appt (QUB/RGH)								
Associate Specialist								
Hospital Dental Technician (MTO 5)								
Hospital Dental Technician (MTO 4)								
Hospital Dental Technician (MTO 3)								
Hospital Dental Technician (MTO 2)								
Hospital Dental Technician (MTO 1)								
Tutor								
NVQ Assessors								

NHSSB
United Hospitals Trust

Job Title	Funded Posts	WTE Funded	No. of Staff	WTE in Post	Specialism	Vacant Posts	Gender	
							Male	Female
Consultant	1	1	1	0.18	Orthodontics		1	
Specialist Registrar								
Registrar								
Senior House Officer								
House Officer								
Other Dental Surgeons			5	0.47			3	2
GDP (Sessional)								
Dental Hygienist								
Dental Nurse			2	0.82				2
Principal Dental Nurse								
Senior Qualified Nurse								
Basic Qualified Nurse								
Senior Dental Officer								
Community Dental Officer								
Vocational Trainee								
Staff Grade								
Hospital Practitioner								
Consultant Jt/Appt (QUB/RGH)								
Associate Specialist								
Hospital Dental Technician (MTO 5)			2	2			1	1
Hospital Dental Technician (MTO 4)								
Hospital Dental Technician (MTO 3)								
Hospital Dental Technician (MTO 2)								
Hospital Dental Technician (MTO 1)								
Tutor								
NVQ Assessors								

SHSSB
SHSSB & Craigavon Area Hospitals Trust

Job Title	Funded Posts	WTE Funded	No. of Staff	WTE in Post	Specialism	Vacant Posts	Gender	
							Male	Female
Consultant	2	2	2	2	Orthodontics, Public Health		1	
Specialist Registrar	1	1	1	1				1
Registrar								
Senior House Officer								
House Officer								
Other Dental Surgeons	1	0.2	1	0.2	Orthodontics			1
GDP (Sessional)								
Dental Hygienist								
Dental Nurse	2	2	2	2	Orthodontics		2	
Principal Dental Nurse								
Senior Qualified Nurse								
Basic Qualified Nurse								
Senior Dental Officer								
Community Dental Officer								
Vocational Trainee								
Staff Grade								
Hospital Practitioner								
Consultant Jt/Appt (QUB/RGH)								
Associate Specialist								
Hospital Dental Technician (MTO 5)								
Hospital Dental Technician (MTO 4)								
Hospital Dental Technician (MTO 3)								
Hospital Dental Technician (MTO 2)								
Hospital Dental Technician (MTO 1)								
Tutor								
NVQ Assessors								

	Specialisms										
Job Title	Restorative	Paediatric D	Periodon	Orthodo	OMFS	Anatomy	Surgical	Public Hea	Laboratory	Speciality Unkr	TOTAL
Consultant (Fulltime)	2	2		3	1			1	1		10
Consultant (Joint Appt)	9	1		2	2	1			1		16
Consultant (Maximum Part Time NHS)					3						3
Consultant (Fulltime University)					1						1
Specialist Registrar	3	2	2	5	1		1	1			15
Senior Dental House Officer										16	16
Junior Dental House Officer										1	1
Staff Grade					1					2	3
Hospital Dental Appointments		1		1							2
Associate Specialists										1	1

NI Hospital Dental Workforce

Job Title	Number of Staff in Post
Consultant Fulltime	10
Consultant Joint Appointment	16
Consultant Maximum Part-Time NHS	3
Consultant Fulltime University	1
Specialist Registrar	15
Senior Dental House Officer	16
Junior Dental House Officer	1
Staff Grade	3
Hospital Dental Appointments	2
Associate Specialists	1
Non-Consultant Manpower Non-Training	
Hospital Practitioner	5 sessions per week
Staff Grade	2 sessions per week
GDP	7.5 sessions
Senior Dental Officer	1.5 sessions per week
Community Orthodontist	2 sessions per week

Other Hospital Dental Staff

Job Title	Funded Posts	WTE Funded	No. of Staff	WTE in Post	Specialism	Vacant Posts	Male	Female
Dental Hygienist	1	0.7	1	0.7		0	0	1
Dental Nurse	3.5	3.5	6	4.32		0	2	4
Principal Dental Nurse	1	0.5	1	0.5		0	0	1
Senior Qualified Nurse	9	9	10	9		0	0	10
Basic Qualified Nurse	25	24.25	28	24.25		0	0	28
Vocational Trainee	0	0	0	0		0	0	0
Hospital Dental Technician (MTO 5)	1	1	3	3		0	2	1
Hospital Dental Technician (MTO 4)	2	2	2	2		0	1	1
Hospital Dental Technician (MTO 3)	8	8	7	7		1	5	2
Hospital Dental Technician (MTO 2)	4	4	4	4		0	2	2
Hospital Dental Technician (MTO 1)	1	1	0	0		1	0	0
Tutor	2	1.18	2	1.18		0	0	2
NVQ Assessors	2	2	2	2		0	0	2

Appendix 2:

Community dental workforce

COMMUNITY DENTAL SERVICE - DENTAL WORKFORCE - FEBRUARY

EHSSB

Job Title	Funded Posts	WTE Funded	No of Staff	WTE in Post	Specialism	Vacant Posts	Gender	
							Male	Female
Clinical	3	3	2	2		1	0	2
Sen. Dental Officer	7.5	5.71	7.5	5.71		0	1	5
Comm. Dental	23	16.5	24	16.5		0	1	23
Dental Hygenist	3	1.6	2	1.3		0.3	0	1.5
Dental Therapist	0.54	0.54	1	0.54		0	0	1
Senior Dental	4	3.3	4	3.3		0	0	4
Dental Nurse	47	36.63	44	34.35		3	0	45
Staff Nurse	0	0	0	0		0	0	0
Denta Health	3	1.5	3	1.5		0	0	3
Dental Health	1	0.8	1	1		0	1	0

WHSSB Total

Job Title	Funded Posts	WTE Funded	No of Staff	WTE in Post	Specialism	Vacant Posts	Gender	
							Male	Female
Clinical Director	1.6	1.6	2	1		0	1	1
Sen. Dental Officer	1.8	1	1	0		0	0	1
Comm. Dental Officer	13	8.7	12	3.2		3.3	0	12
Dental Hygenist	1.4	1.4	3	0		0	0	3
Dental Therapist	2.6	1.9	3	1.6		0	0	3
Senior Dental Nurse	0	0	0	0		0	0	0
Dental Nurse	23.4	20.9	26	9.6		0	0	26
Staff Nurse	0	0	0	0		0	0	0
Clerical Officer	3	2	3	2		0	0	3
Denta Health Educator	0	0	0	0		0	0	0
Dental Health Coordin	0	0	0	0		0	0	0
Secretary		0.3	1					1
Senior Assistant Technical Officer	2.1	1.5	2					2

COMMUNITY DENTAL SERVICE - DENTAL WORKFORCE - FEBRUARY 2002

SHSSB Total

Job Title	Funded Posts	WTE Funded	No of Staff	WTE in Post	Specialism	Vacant Posts	Gender	
							Male	Female
Clinical Director	1	1	1	1		0	0	1
Sen. Dental Officer	3	2.1	1.6	0.81		1	0	2
Comm. Dental Officer	11	7.07	11	7.07		0	0	11
Dental Hygenist	2	1.01	1	0.41		1	0	1
Dental Therapist	2	1.54	2	1.54		0	0	2
Senior Dental Nurse	3	2.81	3	2.81		0	0	3
Dental Nurse	17	15.52	17	15.52		0	0	17
Staff Nurse	0	0	0	0		0	0	0
Oral Health Promotion Co-ordinator	1	0.81	1	0.81		0	0	1
Dental/ Oral Health Dietician	1	0.65	1	0.65		0	0	1
Clerical Officer								
Senior Health Promotion Officer								
Dental Service Manager								
Denta Health Educator	0	0	0	0		0	0	0
Dental Health Coordin	0	0	0	0		0	0	0

NHSSB Total

Job Title	Funded Posts	WTE Funded	No of Staff	WTE in Post	Specialism	Vacant Posts	Gender	
							Male	Female
Clinical Director	1	1	1	1		0	1	0
Sen. Dental Officer	4	4	3	3		1	0	3
Comm. Dental Officer	13	11.73	12	10.73		1	4	8
Dental Hygenist	2	0.8	1	0.4		2	0	0
Dental Therapist	1	1	1	1		1	0	2
Senior Dental Nurse	4	4	3	3		1	0	3
Dental Nurse	22	19.36	20	17.96		2	0	20
Staff Nurse	0	0	0	0		0	0	0
Denta Health Educator	0	0	0	0		0	0	0
Dental Health Coordin	0	0	0	0		0	0	0
Senior Health Promotion Officer	2	1.59	2	1.59		0	0	2
Dental Service Manager	1	1	1	1		0	0	1

COMMUNITY DENTAL SERVICE - DENTAL WORKFORCE - FEBRUARY 2002

NI Total

Job Title	Funded Posts	WTE Funded	No of Staff	WTE in Post	Specialism	Vacant Posts	Gender	
							Male	Female
Clinical Director	6.6	6.6	6	5		1	2	4
Sen. Dental Officer	16.3	12.81	13.1	9.52		2	1	11
Comm. Dental Officer	60	44	59	37.5		4.3	5	54
Dental Hygenist	8.4	4.81	7	2.11		3.3	0	5.5
Dental Therapist	6.14	4.98	7	4.68		1	0	8
Senior Dental Nurse	11	10.11	10	9.11		1	0	10
Dental Nurse	109.4	92.41	107	77.43		5	0	108
Staff Nurse	0	0	0	0		0	0	0
Oral Health Promotion Co-ordinator	1	0.81	1	0.81		0	0	1
Dental/ Oral Health Dietician	1	0.65	1	0.65		0	0	1
Clerical Officer	3	2	3	2		0	0	3
Senior Health Promotion Officer	2	1.59	2	1.59		0	0	2
Dental Service Manager	1	1	1	1		0	0	1
Denta Health Educator	3	1.5	3	1.5		0	0	3
Dental Health Coordin	1	0.8	1	1		0	1	0
Secretary	0	0.3	1	0		0	0	1
Senior Assistant Technical Officer	2.1	1.5	2	0		0	0	2

Appendix 3:

General dental workforce

Dental Workforce Review 2002 Northern Ireland

Robbie McGreevy

Brief Feedback on GDP Survey

21 March 2002

Statistics for General Dental Practitioners

Data from CSA by Dentist Group in General Practice	Numbers
Principal dentists (Number)	671
M : F	421 : 250
Principal dentists (Contracts)	(704 Contracts)
Dental Assistants	36
Vocational Trainees	22

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Contracts by Gender and Health Board

Principal Dentists Contracts	Male	Female
Eastern	185	117
Western	70	47
Northern	105	67
Southern	81	32
Total	441	263

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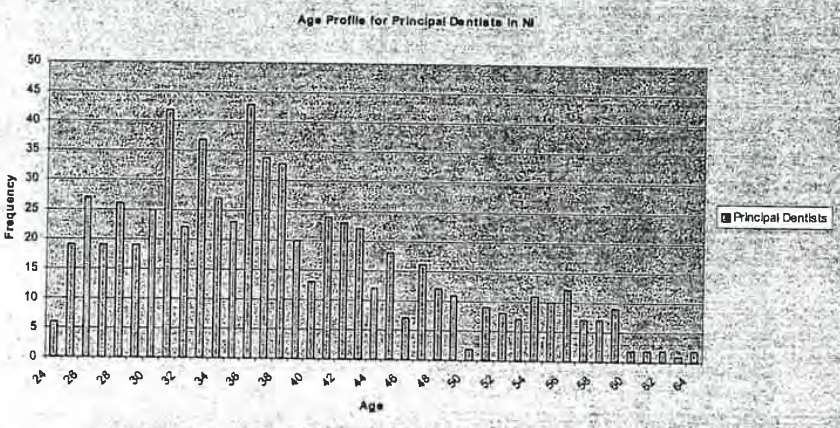
Age Profile – Principal Dentists In General Practice



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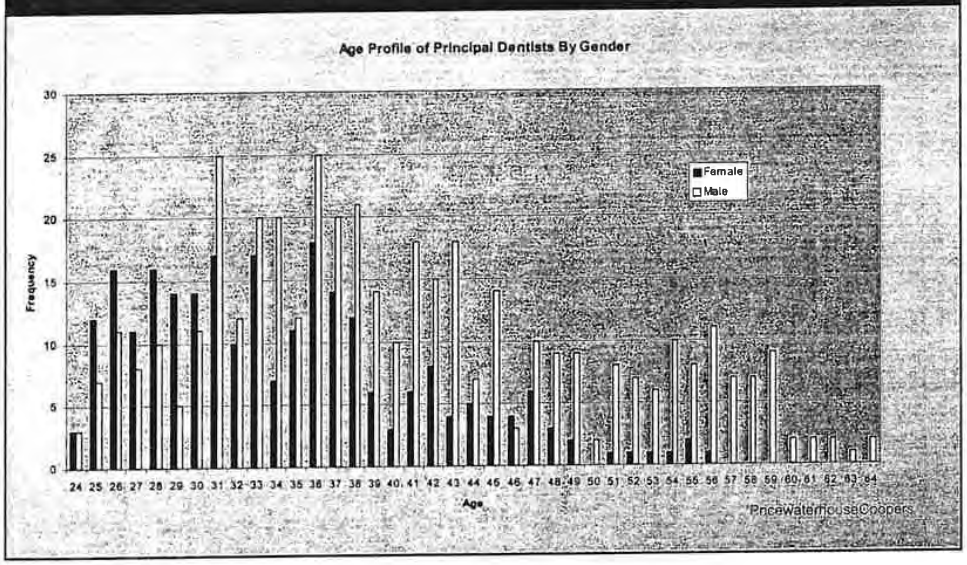
Age Profile of Principal Dentists By Gender



General Dental Practitioner Survey

Northern Ireland 2002

Statistics of Respondents for General Dental Practitioner survey

Numbers Responded	298
Percentage of total forms sent	43%
Average Age	37.6
Age Range	24-62

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Statistics of Respondents for General Dental Practitioner survey

	Northern	Southern	Eastern	Western	Overall
Practice Owner	47	33	68	31	179
Dental Associate	27	27	47	16	117

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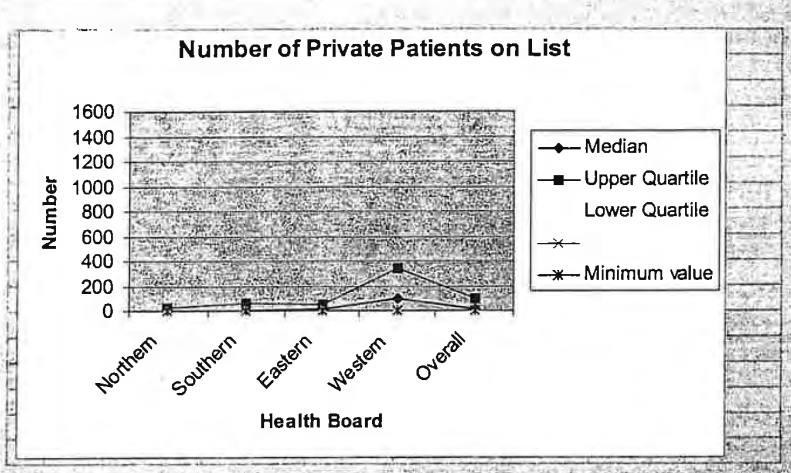
Statistics of Respondents for General Dental Practitioner survey



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Survey Data – General Dental Practitioner

	Median	Steering Group Validation
List Size	1610	✓
Median Number of Private patients	10	✖
Median Number of HS patients	1600	✓
Proportion of time spent on HS dental care for patients	95%	75%
Proportion of time spent on Private dental care for patients	5%	25%

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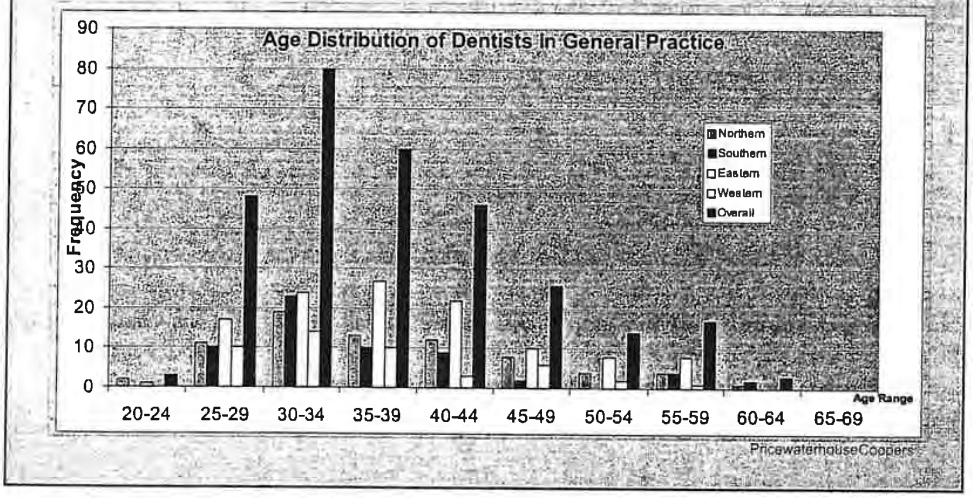
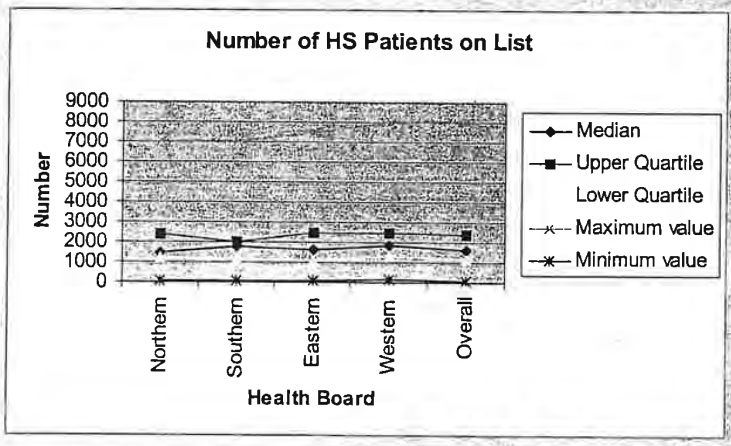
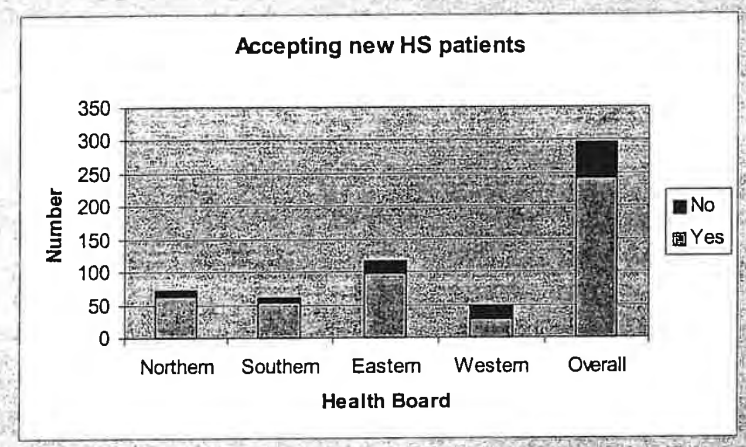
Survey Data – General Dental Practitioner



Statistics of Respondents for General Dental Practitioner survey



Statistics of Respondents for General Dental Practitioner survey



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Statistics of Respondents for General Dental Practitioner survey

Accepting all new patients on HS					
	Northern	Southern	Eastern	Western	Overall
Yes	63	53	97	29	242
No	10	7	19	18	54
	73	60	116	47	296

If not accepting all new patients then which groups are excluded?					
	Northern	Southern	Eastern	Western	Overall
All adults	3	2	10	8	23
Children	1	1	7	6	15
Paying adults	1	0	2	4	7
Other	3	2	6	7	18

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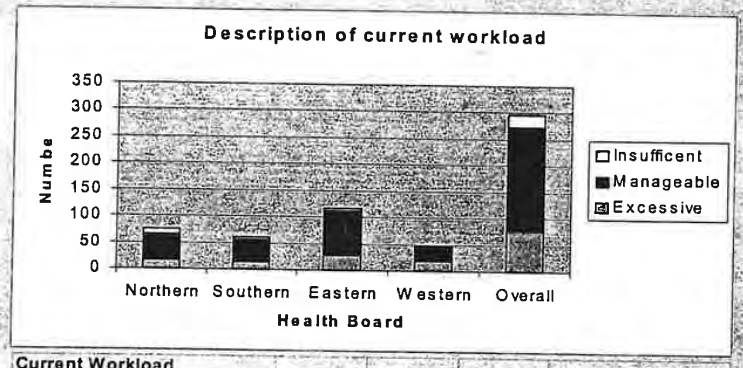
Statistics of Respondents for General Dental Practitioner survey



Current Workload	Northern	Southern	Eastern	Western	Overall
Excessive	16	13	29	19	77
Manageable	50	43	82	22	197
Insufficent	8	4	6	5	23

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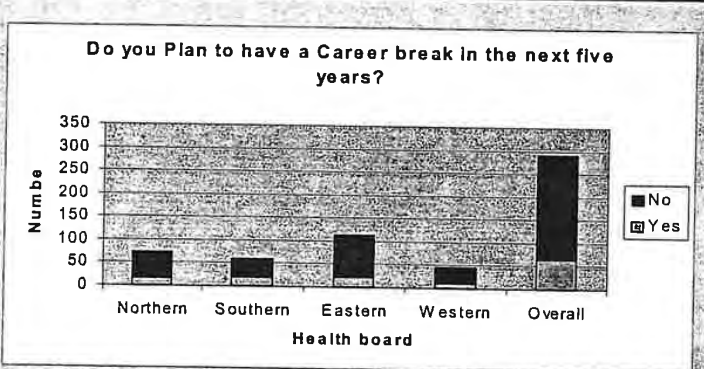
Statistics of Respondents for General Dental Practitioner survey



Career break	Northern	Southern	Eastern	Western	Overall
Yes	15	18	21	10	64
No	57	41	93	37	228

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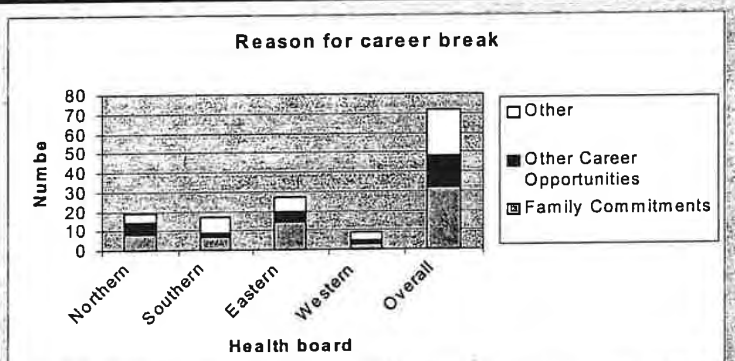
Survey Data – General Dental Practitioner



Reason for career break	Northern	Southern	Eastern	Western	Overall
Family Commitments	8	7	14	3	32
Other Career Opportunities	6	2	6	2	16
Other	5	8	7	4	24
Total	19	17	27	9	72

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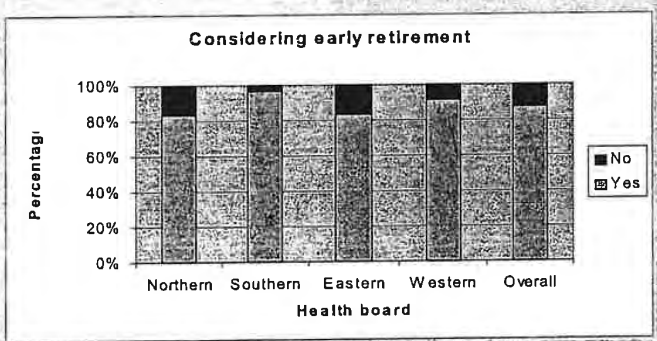
Survey Data – General Dental Practitioner



Early retirement	Northern	Southern	Eastern	Western	Overall
Yes	61	57	96	42	256
No	12	2	19	4	37
Total	73	59	115	46	293

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Survey Data – General Dental Practitioner

Age planning to retire

	Northern	Southern	Eastern	Western	Overall
40-44	1	0	0	1	2
44-49	0	4	3	3	10
50-54	15	19	14	8	57
55-59	38	25	68	23	154
60-64	13	8	23	5	49
65+	1	1	4	0	6

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Survey Data – General Dental Practitioner

Average No of sessions worked per week (session = 3.5 hours)

	Northern	Southern	Eastern	Western
Practice Owner	8.9	9.1	8.7	10.5
Dental Associate	9.0	7.3	8.0	6.0
Dental Assistant	Not Available	Not Available	4.0	Not Available
Vocational Trainee	8.0	8.0	8.0	8.0
Dental Hygienist	6.0	Not Available	3.7	3.3
Dental Nurses	5.6	6.1	7.1	7.4
Other	5.2	6.3	7.5	4.9

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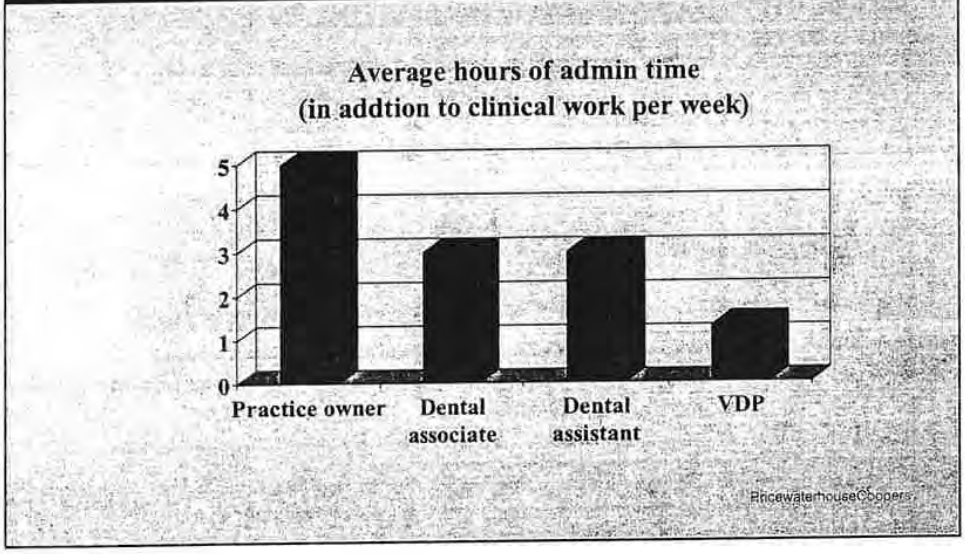
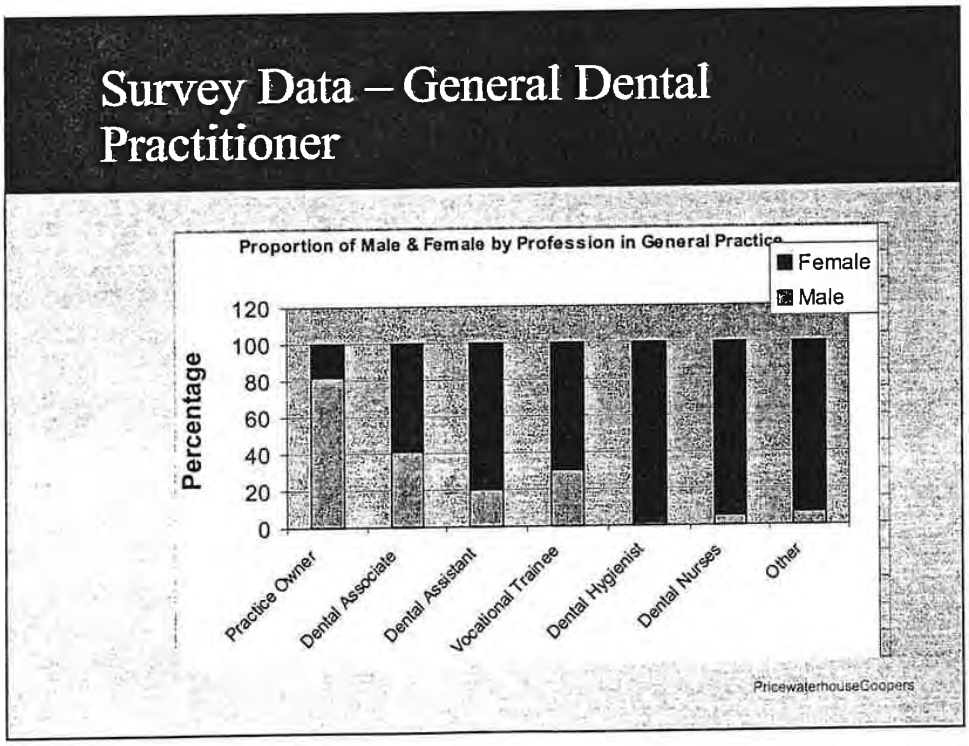
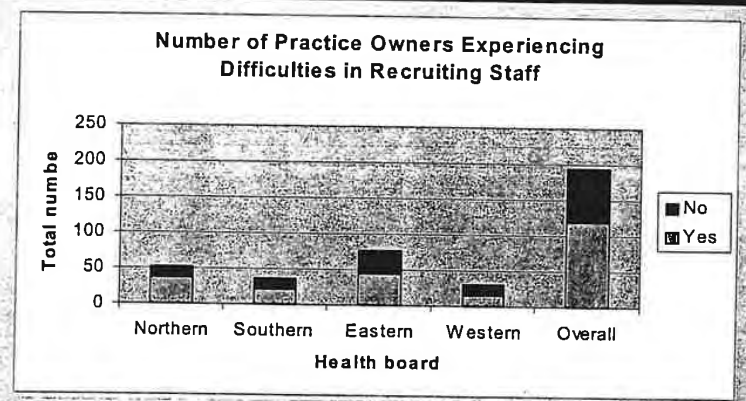
Survey Data – General Dental Practitioner



Survey Data – General Dental Practitioner



Survey Data – General Dental Practitioner



Difficulty Recruiting	Northern	Southern	Eastern	Western	Overall
Yes	37	22	45	15	119
No	15	14	31	16	76

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Survey Data – General Dental Practitioner

Breakdown of recruitment difficulties	Northern	Southern	Eastern	Western	Overall
Dental Assistants	2	3			5
Dental Associate/Surgeon	24	17	19	13	73
Locum	2	2	1	1	6
Dental Hygienist	1	2	1	1	5
Dental Nurses	17	14	25	8	64
Diversified DSA	1	2	2		5
Practice Manageress		3			3
Receptionist	6	3	12		21
Total	53	46	60	23	182

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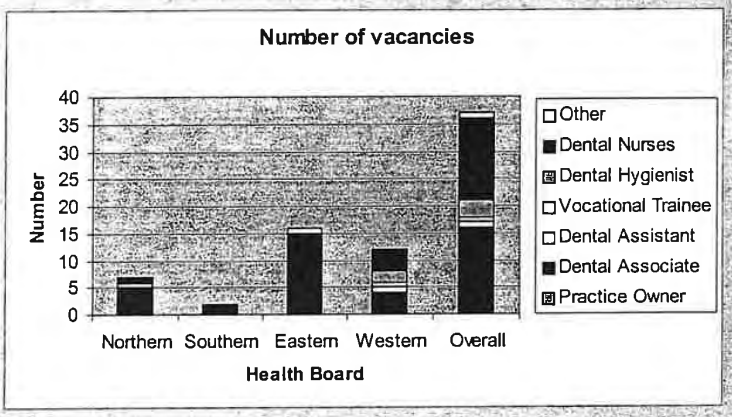
Survey Data – General Dental Practitioner



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Survey Data – General Dental Practitioner

No of Vacant posts

	Northern	Southern	Eastern	Western	Overall
Dental Associate	5	1	6	4	16
Dental Assistant	0	0	0	1	1
Vocational Trainee	0	0	0	1	1
Dental Hygienist	1	0	0	2	3
Dental Nurses	1	1	9	4	15
Other	0	0	1	0	1
Total	7	2	16	12	37

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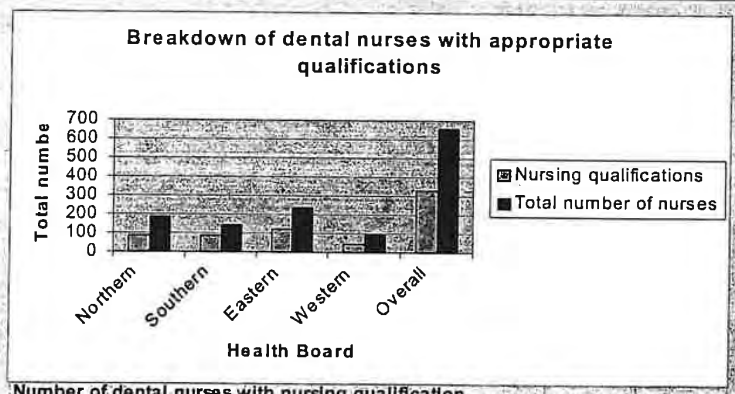
Survey Data – General Dental Practitioner



Number of dental nurses with nursing qualification

	Northern	Southern	Eastern	Western	Overall
Nursing qualifications	84	86	118	42	330
Total number of nurses	186	145	235	92.5	658.5

PricewaterhouseCoopers

Survey Data – General Dental Practitioner

Staffing you would wish to increase over the next 5 years if they were available

	Northern	Southern	Eastern	Western	Overall
None	9	3	14	6	32
All	1		2		3
Dental Associates/Dentists	17	12	23	13	65
Dental Assistants	1				1
Vocational Trainees		1	1		2
Dental Nurses	13	10	20	4	47
Dental Hygienists	9	6	9	2	26
Dental therapists	3	4		2	9
Receptionists	5	2	4		11
Administration	2	2	2	1	7
Manager			2		2
Ancillary Staff			1		1

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Survey Data – General Dental Practitioner

Some Key reasons given for barriers to recruitment

- BALANCING DEMANDS BETWEEN WORK AND FAMILY COMMITMENTS
- GETTING DENTISTS ATTRACTED TO AREAS OUTSIDE BELFAST
- IF THEY INSIST ON HAVING QUALIFIED NURSING STAFF, THEN LACK OF PEOPLE AND WAGES WILL FORCE ME TO GO PRIVATE
- LACK OF AVAILABILITY OF DENTAL SURGEONS FOR DENTAL ASSOCIATE POSITIONS
- FEE SCALE INCOME SET AGAINST RISING DEMANDS ON SALARIES AND WAGE COSTS
- OBTAINING ADEQUATE LEVELS OF PROFESSIONAL TRAINING FOR DENTAL AUXILIARIES
- LACK OF DENTISTS WHO WISH TO BECOME PRACTICE OWNERS/PARTNERS

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Dental Practice Committee Views

Changes in Dental Need – Impact on Demand

- Reduced incidences of decay (except root caries)
- Increased tooth wear
- More complicated restorative treatment for an aging population
- Fluoridation of water supply?

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Dental Practice Committee Views

Demand Issues

- Increase in implants
- Increase in root caries
- Public awareness
  - Increase in white (tooth coloured fillings)
  - Increase in all forms of cosmetic surgery
  - Bleaching increase
- Aging population
  - Tooth wear problems of an aging population
  - Retention of teeth into old age – more partial dentures - expensive

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Dental Practice Committee Views

Supply Issues

- Increase in non NHS working – private dentistry
- Earlier retirement
- Decrease in dentists willing to own their own practices
- Increase in female dentists
- Increased working and job share
- Increase in corporate bodies especially if GDC rules on ownership are relaxed
- Dental therapists working in GDS
- Dental technicians providing dentures in their own premises, to a dentists prescription
- Increased numbers of dental auxiliaries of all types

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Appendix 4:

Factors impacting on supply and demand

Changes in Dental Need- Impact on Demand	Relevant/Not Relevant?	Increase/ Decrease?	Low/Medium/High Impact?	Is it measurable?
1.Higher proportion of deprivation compared to the rest of the UK and poor oral health/ people less likely to seek oral care. **NB. Those people of poor oral health less likely to seek routine oral care are not necessarily those less likely to seek emergency care.**	Not relevant as unlikely to impact on current demand levels. Other aspects covered in the following issues.	N/A	N/A	N/A
2. Oral Health Strategy Mid Term Evaluation: • **Target for 5 yr olds with no caries experience should be raised from 45 to 50% by 2003.** • **Average number of teeth with caries experience to remain at 2.2 for 5 yr olds.** • **Average number of teeth with caries experience should remain at 4.0 by 2003.** • **Target for sound and untreated teeth per adult should increase from 15 to 16 by 2008.** • **Target for adults with no remaining teeth should be reduced from 10% to 8% by 2008.** • **Target for adults with 18 or more sound teeth raised from 35% to 40%.**	Relevant	Increase	Medium	Take average list sizes and current staff to estimate change. Average dental practice has approximately 440 children and increase this respectively. Impact on Oral Health Educators (to talk to parents etc). The more sound teeth that adults have- the more teeth that can go wrong in later years.
3. Oral Health Strategy Mid Term Evaluation Targets (Registration): • **Increase in % of 0-2 yr olds registered with a GDP up from 24% to 30% by 2003.** • **Increase in % of 3-5 yr olds registered with a GDP from 62% to 68% by 2003.** • **Maintenance of or increase in 6-17 yr olds and 18 yr olds and over registered with a GDP by 2003.**	Relevant	Increase	Medium	Average List Sizes.

4. Reduced incidences of decay (except root caries). A lot of the population do not attend dentists/ 50% of population do not access dental services.	Relevant	Increase	High Impacts across all sectors	Guesstimate- 10-20% increase.
5. Increased tooth wear. More and more complex treatments occurring across the board. NB. Untreated teeth and sound teeth (restored teeth) may be different. Sound useful tooth does not necessarily mean that this does not require maintenance.	Relevant			
6. Aging Population: • **Tooth wear problems of an aging population** • **Retention of teeth into old age (more partial dentures/expensive).** • **More complicated restorative treatment for an aging population.**	Relevant Increase will be significant. Adult population list size is increasing regarding older people.			
7. Increase in implants. Implants not available on NHS (mostly private dentistry with the exception of people with major abnormalities).	N/A			
8. Public awareness: • **Increase in white (tooth coloured fillings).** • **Increase in all forms of cosmetic surgery.** • **Bleaching increase.** • **Much more aware of dental issues and advanced treatment options.** • **Perceived lack of dental need.** • **Dental costs perceived as high.** • **Increase in demand for out of hours work.**	Relevant If Oral Health strategy successful, increase in public awareness, will increase demand. Likely to increase.			
9. Fluoridation of water supply?	N/A Unlikely to occur			

10. Increase in domiciliary care which is more time intensive. (Factor into community and hospital dental service. CSA could provide information). Impact will be small but will be increasing. Easy to find out domiciliary visits undertaken as consultants, hospitals have fees as do GDP's. CSA should have record of GDP domiciliary visits; Hospital figures should be available through trusts as Hospitals claim for these. Community trusts have these.	Relevant	Increase	Small	Difficult to predict
11. Increase in speciality services for children, learning disability, older people etc to meet growing unmet need.	Relevant	Increase	Small	Difficult to predict
12. Impact of junior doctors hours and working time directive on hospital dentistry. Postgraduate education and undergraduate education/numbers etc could be obtained. Undergraduate numbers are increasing dramatically, this will impact as students will require teaching and will divert university dentists away from treating patients.	Relevant	Increase	Medium	2 in paeds and 2 in oral dental care to make up to 5 working a shift system instead of three
13. Hygienists moving towards working more with private patients and reducing inputs in other services.	Relevant	Increase	High	Linked to dentist movement

Changes in Dental Need- Supply Factors	Relevant/Not Relevant?	Increase/ Decrease?	Low/Medium/High Impact?	Is it measurable?
1.Increase in non NHS working- private dentistry. Private dentists have smaller list sizes but spend more time with each patient. GB figures on private dentistry may be useful for modelling projected shift. NB. Number of practitioners who remain committed to NHS work should be available. Boards would have numbers of patients who cannot find NHS dentists.	Relevant.	Decrease supply	Over next 10 years, impact likely to be medium to high	60:40 (Private: NHS Ratio) in 10 years time. In terms of measurement- CSA figures on % rate rebate may help and English figures on NHS compared with private. Difficult to measure.
2. Earlier retirement. Aspirations regarding early retirement.	Relevant	Decrease supply	Medium Impact	Measurable
3. Decrease in numbers of dentists willing to own their own practices. Possibility of looking at practice owner figures historically from 10 years ago compared with now and therefore model from this.	Very relevant.	Decrease supply	High Impact	Total number of practices and practice owners- measurable (Age group of practice owners could also be measured)
4. Increase in numbers of female dentists. Partly down to higher academic attainment of females currently.	Relevant	Decrease hours worked	High	Female Trend 70:30 at the moment at dental school. (Reversal of trend that occurred 20 years ago). Projections.
5. Increased part-time working and job share. Increase in salaried posts (corporate bodies to be a thing of the future, more so than self-employed posts).	Relevant	Decrease	High	Projections to be used.

Changes in Dental Need- Supply Factors	Relevant/Not Relevant?	Increase/ Decrease?	Low/Medium/High Impact?	Is it measurable?
6. Increased role for Professions Complementary to Dentistry: • **Dental therapist working in GDS.** • **Dental therapists could assist in GDS in treatment of children and simple restorations.** • **Dental technicians providing dentures in their own premises, to a dentist's prescription.**	Relevant Small number of therapists at moment- GDC wants to promote PCD's and therefore their role will increase.	Decrease supply	Low Low Medium	Difficult to measure.
7. Increase in corporate bodies especially if GDC rules on ownership are relaxed. Depends how corporate bodies perform in England- whether they will be introduced here.	Relevant. Difficult to look at English trend as there is more scope for private work in England. Yet White Cross in England claims not to be private. Yet corporate bodies will reduce no. of patients. Ethos of less patients and increased quality.	Decrease supply	Medium	Difficult to put a figure on this. Some information from Den Plan
8. Estimated that 1/3 of those students training in GB return to NI. Referring to students who go to GB to train and VDP's. CSA on who and where students qualify. CSA can run this over 10 year sample. Also available from Boards (latter may be better source for this).	Relevant	Increase supply	Medium	Get list of students who register with the Boards.

Changes in Dental Need- Supply Factors	Relevant/Not Relevant?	Increase/ Decrease?	Low/Medium/High Impact?	Is it measurable?
9. Dental therapists down from 31 to 7 in NI now working as oral health promoters, hygienists or have left dental profession. Therapists have never been trained in NI. It is possible that 31 went to GB to train and that only 7 returned post-training.	Not relevant	N/A	N/A	N/A
10. Shortage of dental associates and dental nurses in GDS.	Relevant	Decrease in supply	Medium	Vacancy levels that we have received should be worked up to reflect 100% rather than 43% response rate. (Info from GDP survey)
11. Shortage of dental officers, dental nurses.	Relevant	Decrease in supply	Decrease in supply	Calculate from Community profile
12. Lack of trained specialist dentists. Came through in returns from trusts (more so in the community). Until three years ago, always a post where the community dental officer could return and undertake a Masters at School of Dentistry. This is no longer open to them/ qualifications more difficult to get. This will have a major impact. Need for wider range of specialists in the community e.g. medically at risk etc.	Retraction of something that historically existed.	N/A	N/A	Recommendation on training rather than numbers.

Changes in Dental Need- Supply Factors	Relevant/Not Relevant?	Increase/ Decrease?	Low/Medium/High Impact?	Is it measurable?
13. Increased demand for health promoters. (Dental hygienists, therapists and nurses become health promoters. Oral Health Promoters/ Co-ordinators also exist in GDS.) Training for health promoters who are dental nurses i.e. they become health promoters once they are qualified dental nurses; whereas some of health promotion is built into the training of dental hygienists.	Relevant	Decrease	Low	Difficult to measure
14. Registration of PCDs with the GDC.	Recruitment and retention issue.	Decrease	Low	Likely to occur in 2003
15. Qualification requirement for dental nurses. Review the impact of new training requirements and whether the career structure and remuneration will be sufficient to attract potential recruits into the dental nursing profession. Review where and how dental nurse training is delivered in the future to ensure retention until completion of training.	Not relevant	N/A	N/A	Not automatically linked to workforce numbers. Pay and conditions issue
16. CPD for dental nurses and hygienists. More funding issue; not manpower issues. Problem if you do not have the specialists who will do the training, as consultants and specialists are required to offer a training commitment.	Not relevant	N/A	N/A	Recommendation required.
17. CPD for dentists. Significant amount of CPD must be hands on due to the nature of the job; needs to be academic/consultant led. Verifiable CPD will have a major impact on hands on courses and this requires formal recognition by DHSSPS i.e. 75 hours over a five year period for each practitioner to stay on GDC register. CPD has to have major hands on impact and formal recognition i.e. 75 hours over 5 year period for each practitioner. Internet courses are also available which are also verifiable.	Relevant	Reduced supply	Medium	Consultant academic hospital staffing impacted.

Appendix 5:

Model Details

Further model details

Designed in Microsoft Excel the model used to generate the results in the report is designed as follows:

Demand:

The list size is inputted separately for under 16s and over 16s. The proportion of the population registered is also entered for <16s and >16s. The demand for Dentists is calculated as follows:

$D_{dem} = ((POP_{u16} * REG_{u16}) * LS_{u16}) + ((POP_{o16} * REG_{o16}) * LS_{o16})$

Where:

- D_{dem} =Dentists demanded
- POP_{u16} = NI population under 16
- POP_{o16} = NI population over 16
- REG_{u16} = proportion of population registered under 16
- REG_{o16} = proportion of population registered over 16
- LS_{u16} = List size under 16
- LS_{o16} = List size over 16

As such the demand of dentists is a linear tend between 2001 and 2012 and is affected by 2 driving factors, registration proportions and list sizes.

Supply:

The supply side of the model has separate data inputted for the following factors:

- Male / female proportion of new trained dentists
- Number of new dentists trained
- Proportion of new dentists trained in 5 year age groups
- Male female ratio of migrants
- Net migration of dentist into NI by five year age groups
- Male and female retirement rates by 5 year age groups, separately for males and females

Supply is then estimated by the following equation

$$DSUP_a = DSUP_{t-1} + 0.2*DSUP_{(a-1)(t-1)} - 0.2*DSUP_{t-1} + MF_j*NEW*AGE_j + MF_m*MIG*AGE_m - DSUP_t * RET_r$$

Where

- $DSUP_a$ = Dentists supplied in age group a
- t-1 = previous year
- a-1 = next youngest 5 years age category
- MF_j = Male female ration of new trained VCDs
- NEW = number of new trained dentists
- AGE_j = Ration of age band of new dentists
- MF_m = Male female ratio of net migrants
- MIG = number of new migrants
- AGE_m = Ration of age band of migrants
- RET_r = Retirement rate in given age band

The model therefore operates in five year age bands and fractions, or partial numbers of dentists are used within calculations with rounding carried out at the end of estimates, that is it is not an integer model to avoid loss of accuracy.

The supply results are produced separately for 5 years age bands separately for males and females and aggregated to produce the final results.

Department of Health, Social Services and Public Safety

An Roinn Sláinte, Seirbhísí Sóisialta agus Sábháilteachta Poiblí

Review of the Dietetics Workforce

Final Report

June 2003

Contents

EXECUTIVE SUMMARY

In September 2001, the DHSSPS commenced a series of uni-professional workforce reviews, which, over the period of one year, would cover the main clinical professions within the HPSS. There were a number of drivers behind the initiative and these included, the publication of the Hayes Report on the future of Acute Hospital Services and the DHSSPS consultation document 'The Employer of Choice'. Both documents highlighted the urgent need to put in place structures that will support workforce planning within and across all of the HPSS Professions. While it was determined that the initiatives, at this stage, would be taken forward on a uni-professional basis, the information and recommendations from this work would provide an important baseline in terms of developing workforce planning within HPSS across service sectors and professions.

Introduction

The document presented sets out a comprehensive review of the HPSS Dietetic profession. The review was undertaken during the period May-September 2002 and was co-ordinated by a Project Group, which was comprised of representatives of the DHSSPS, providers, education, commissioners and staff side. The content of the report includes background details (including terms of reference), the project methodology, and a detailed profile of the current Dietetic workforce, a projection of the supply and demand for Dietitians within the HPSS workforce over the 5-year period 2003-2007 and recommendations to address issues arising from the review.

Background

The principal focus of the review was to provide the DHSSPS and service providers and commissioners with information concerning recruitment and retention issues and projection of supply and demand within the Dietetic profession. This information is vital to assist the Department in developing strategies that will ensure that the correct numbers of professionals are trained, in place and working effectively to offer the maximum benefit to patients and clients.

In considering the above, it is also important to review the current health policy context for the delivery of health and social care services in the future. A number of strategic documents have been reviewed and highlight the focus now being given to the delivery of high quality accessible care, with the development of the HPSS workforce being key to achieving this.

Terms of Reference

1. Provide a profile of the current Dietetic workforce in Northern Ireland, including:

   - Numbers employed, specialism in which employed, grading distribution age and gender balance.
   - Working conditions and patterns, grading and distribution.
   - Continuing professional development opportunities.

2. Provide an analysis of current and future recruitment and retention issues, including:

   - Remuneration
   - Career development and specialisation
   - Career breaks / leaving the profession
   - Working arrangements

3. Provide a prediction of the future supply of Dietitians over the next 5- years within the workforce and demand, including:

   - Number of Dietitians required meeting service demands
   - Specialism distribution

   This review will focus on providing a qualitative report and was not required to examine economic issues or carry out detailed feasibility studies.

Methodology

The following methodology was employed:

- Audit of current workforce identifying the staffing profile and characteristics. This baseline information was primarily gathered from existing information held within the Department and at Trust level on the Human Resource Management Information Systems, and supplemented as possible by the respective professional bodies.

- Background research conducted to identify future and current trends impacting upon the staff and involved a keyword and heading search of relevant professional databases; policy document review; a review of Trust and commissioner strategies to identify proposed service developments or changes and a review of benchmark data sources.

- Consultation with stakeholders involving extensive consultation, through 14 key informant interviews and 7 focus groups.

- Analysis of data gathered to develop a workforce model to aid the prediction of supply and demand of the workforce over the period of 2002 - 2006.

Key findings of the review – supply and demand issues

Supply Issues

Current Staffing Profile

- The Dietetic workforce represents a total headcount of 139 in Northern Ireland (April 2002).

- The ratio of headcount to whole time equivalent for this work force is 1.16:1

- The workforce is entirely female.

- The age profile of the Dietetic workforce shows that only 1% fall within the 55 + category and that 60 is the 'eligible' age for retirement within the general Dietetic profession.

- The data indicates that 95% of the workforce is under 50 years of age and 80% are below 40 years of age.

- The grade breakdown of Dietitians within Northern Ireland identifies a 52% of the workforce are at Senior I grade and 10% at the basic grade level.

- The total number of current vacancies within this profession was identified as 8, which equates to 5.4% of the workforce.

Recruitment and Retention

- There are currently no issues with regard to recruiting to training places at the University of Ulster with the application to places ratio 6.2:1

- The attrition rate for Dietetic students is minimal (below 4%) based on the three-year period 1998-2001.

- On average 69% of new graduates do not enter the HPSS sector in Northern Ireland, due to a lack of job opportunities. Data indicates that

12 out of 25 graduates in the last 2 years took up employment within the N.I HPSS.

- Final year students expressed a strong desire to take up employment in the NIHPSS but indicated there were poor job opportunities.

- Staff requests are increasing for work-life balance practices and it is estimated that currently this accounts for a loss of 1.75% of the Dietetic workforce per annum and the trend is likely to increase.

Career Progression

- Lack of career opportunities and progression is a significant factor in demotivating the work force. There is a limited career path at senior level with often the only available promotional route into management, which has very limited opportunities.

- There are very few basic grade posts within the Dietetic workforce (a total of 14 at April 2002) but the numbers have increased by 10 since 1998.

- The majority of Dietetic posts are at a Senior I level (approximately 52%).

Lifelong Learning

- Difficulties are encountered in ensuring continual Professional Development for post-graduate staff both from a time and funding prospective.

- Funds frequently are raised for training by sponsorship and income generation.

- There are current issues around the need for a change in clinical placement system and a requirement for Northern Ireland Trusts to become more widely involved in accepting clinical placements.

Under representation

- There is a lack of leadership representation at all levels for the profession, which correspondingly means a lack of inclusion in the decision and communication process.

Demand Issues

Service Developments

- The delivery of a Dietetic service within the context of the Regional Brain Injury Unit
- Sensory Disability (United Hospitals Trust)
- Additional clinical service for ICU/HDU beds (Royal Group of Hospitals Trust).
- Additional dietetic input to Oncology services.
- The initiation of a Renal Unit (Ulster Community Hospitals Trust)

Skill Mix/Workforce Review

- A significant amount of Dietitians time can be spent on administrative and clerical tasks.
- Some tasks undertaken by Dietitians do not require professional skills and there are opportunities to further allocate tasks to assistant grades.
- Dietetic assistance could be employed to meet some of the requirements identified as current demand in the clinical service.
- There is at present only 1 Dietetic assistant post within the NIHPSS and this post is being piloted by Craigavon Area Hospital Group HSS Trust. Regionally Managers await the outcome and assessment of this assistant post success.

Operational difficulties

- Pressures experienced within the Dietetic Service results in a reduction in a number of review appointments possible for clients.
- An increase in patient awareness of Patients Charter, rights access to services, increasing expectations complaints systems and causes pressure on the operational service delivery.
- An ageing growing population with compounding clinical complications in old age, increased dependency of patients, increased referral activity patterns are causing of pressure on the clinical service.

Projected Supply and Demand Conclusions

Conclusions were drawn and assumptions made concerning the future profile of the workforce and supply and demand projections have been detailed in Section 5 of this report. They have been developed into a workforce model to predict the requirement of the Dietetic workforce over the period 2003 - 2007.

All data presented has been gathered from discussions with the project group, key informant interviews, HPSS Project Support Analysis statistics and current business cases.

Supply Conclusions

Supply conclusions are based on assumptions made during the consultation process and the project supply of Dietitians has been calculated between 2003-2007. These are profiled in the table below:

Table: Projected Supply of overall Dietetic Workforce in NI (2003-2007)

Supply	2003	2004	2005	2006	2007
Total available to NI HPSS	25	24	25	24	25
Total leavers of NI HPSS	3	3	4	4	4
Total current/potential numbers in NI HPSS	139	161	182	203	223
Projected potential numbers in NI HPSS	161	182	203	223	244
Potential net increase (decrease)%	16	13	11	10	10

Demand Conclusions

The demand for Dietetic professionals has been presented at three Category levels:

Category One: Capital and service developments with identified staffing requirements for the next 5 years for which funding has already been agreed.

Category Two: Policy improvements that may be met in the next 5 years if funding is made available. This includes educational requirements at both under and postgraduate level including continual professional development, time allocated to students on clinical placements, role developments and meeting clinical governance.

Category Three: Current demand and unmet clinical need which has been identified via the key informant interviews and the Project Group. There is no specific policy context or resource identified at present to meet this demand.

For the initial purposes of this workforce plan a combination of category 1 + 2 has been adopted. These categories include agreed and resourced capital and service plans with identified workforce requirements and those that are likely to be resourced within the 5-year plan. The following table illustrates the impact of these demands within the projected workforce:

Summary table of categories 1 & 2

Workforce requirements in WTE	**2003**	**2004**	**2005**	**2006**	**2007**	**Total**
Category One (capital and service requirements that have a funding allocation)	7	5	-	-	-	12
Category Two (Policy improvements that may be met in the next 5-years of they receive funding approval)	6	10	4	4	6	30
Categories 1+2	**13**	**15**	**4**	**4**	**6**	**42**

Demand Category 3 has been explored in depth in Chapter 5 of the report.

Supply v Demand Conclusions

The following table illustrates the overall increase (decrease) in the numbers within the workforce over the 5-year plan.

Table: A profile of projected supply against demand by headcount over the 5-year plan

Key factors supply v demand	**2003**	**2004**	**2005**	**2006**	**2007**
Net supply NI HPSS	11	11	10	10	10
Total potential numbers in NI HPSS	161	182	203	223	244
Vacancies	8	-	-	-	-
Demand Categories 1+2	13	15	4	4	6
Total over (under) numbers in the workforce	(10)	(4)	6	6	4

It can be seen from the figures presented that there is range in the projected numbers within the Categories 1+2 for each year over the 5-year workforce plan. These categories include agreed and resourced capital and service plans with identified workforce requirements and those that are likely to be resourced

within the 5-year period. The figure presented suggests that there is a higher supply of Dietitians than posts available within the NIHPSS when taking into account the requirements of Categories 1+2.

RECOMMENDATIONS

The timescale for the implementation of the key recommendations outlined below is twelve months to coincide with the follow up review:

Workforce Planning

- Now that the workforce planning process is established it is recommended that the Project Board should be retained to steer and implement the recommendations emanating from the Dietetic Workforce Review.

- Now that the workforce planning process is established it is recommended that there is a regular review of supply and demand throughout the 5-year period. The information gathered in the base-line review should be built upon and expanded on it taking into account such factors as the impact on the workforce of the role extension, sub-specialisation, capital plans and service development business cases.

- The Project Board should ensure that there is a consistent and targeted approach to gathering relevant supply and demand data and manpower recording processes.

- The Department should review the activity data collected from the Allied Health Professions at Trust level. Professional managers should review management data collection from the current information systems and ensure the systems are maximised to their full potential the aim of these reviews will be to provide a more comprehensive management information collection, which will aid the workforce planning process.

Recruitment & Retention

- All employers should put in place policies to incorporate planned induction, consolidation and mentorship programmes for all new staff and review the effectiveness of these in a quantitative and qualitative manner.

- Employers and the profession should put in place a consistent approach to the implementation of work-life balance policies and procedures and this should be factored into workforce planning.

Utilisation of the available Workforce

- Trusts should carry out further work into the possibility of reallocating non-clinical responsibilities from Dietitians to other health care workers including Dietetic Assistants.

- A co-ordinated approach should take place with regard to workforce planning of Dietetics, particularly in relation to role extension and development issues.

Education & Development

- Further discussions should take place between the DHSSPS, Trusts and the University to establish a more effective way of providing and increasing the numbers of clinical placements for students throughout the degree programme. It is considered that these increases are vital in enabling Trusts to retain graduates within the NIHPSS. Contributing to the loss of these graduates to outside the NI workforce is the placement of students in the final year to mainland UK. The aim should be for Dietetic student clinical placements to be self sufficient within the NI context. All Trusts with Dietetic services should provide some element of the student clinical placements over the training period. Results of the Clinical Placement Survey (DHSSPS May 2002) should be used in conjunction with this exercise to progress the position of Trusts to better accommodate the clinical placements required.

- There should be an increased focus placed on Continuing Professional Development (including leadership development) and all employers should ensure that the recommended hours provision is accounted for through the workforce planning process.

- Dietetics should become actively involved in the Centre for Continuing Professional Development for the Allied Health Professions (established by the DHSSPS, 2002) The Northern Ireland Dietetic Profession should identify its training requirements and contribute to planning for these needs.

- Employers should provide training to all staff that will be required to provide mentorship or coaching support as part of their role.

- The Department should take forward the development of the AHP consultant role to acknowledge the high levels of clinical expertise within the profession.

Further Review of the Workforce

- The Project Group should be convened initially on an annual basis to review and update the workforce plan.

- Trusts should review the skill-mix of their Dietetic workforce to ensure it has the most appropriate combination of staffing grades to meet the needs of the clinical service this review should also ensure that entry-level posts are maintained so there is a continued flow into the workforce of new graduates.

- The Project Group should be mobilised to take forward where appropriate any recommendations emanating from the workforce review.

- Trusts should review with its Dietetic service the demands of Category 3, as identified in this report, and ensure that any agreed increase in service is included in any future service development plans.

CONCLUSION

This Dietetic workforce review can only be viewed as the starting point, or a baseline for further work to be carried forward. This includes the development of an action plan to take forward the recommendations outlined above. The models presented in the report will need updated and refined on a regular basis to continue to inform decision-making and priorities concerning the investment in the NIHPSS Dietetic workforce over the 5-year plan.

1. INTRODUCTION

An in-depth review of the Dietetic workforce in Northern Ireland took place between May and September 2002 and was co-ordinated by a Project Group, which comprised of representatives of the DHSSPS, HPSS commissioners and providers, education and staff side. The report includes:

- A background to the project
- The project methodology
- A summary of the recruitment and retention issues arising from the review and a projection of the supply and demand for Dietitians over the next five years within HPSS.

The report concludes with a list of recommendations, which seek to contribute to the addressing current and future workforce issues within the NI HPSS Dietetic workforce.

The Department of Health, Social Services and Public Safety Northern Ireland's aim of the review is to develop strategies that can assure the correct numbers of Dietitians are in place and working in the most effective way to offer optimal benefit to the overall healthcare team and the patient.

1.1 Terms of Reference

The following specific terms of reference were applied when carrying out this review:

Provide a profile of the current Dietetic workforce in Northern Ireland, including:

- Numbers employed, grading, distribution, age and gender balance.
- Working conditions and patterns.
- Continuing professional development commitments.

Provide an analysis of current and future recruitment and retention issues, including:

- Remuneration.
- Career development and specialisation.

- Career breaks/leaving the profession.
- Working arrangements.

Provide a prediction of future supply over the next 5 years and demand for Dietitians, including:

- The number required meeting service demands.
- Specialism distribution.

The requirement for this piece of work was to review issues at a generic, strategic level and provide sound conclusions and recommendations relevant to the workforce as a whole. This review was not required to examine economic issues or carry out detailed feasibility studies.

The aim of the report is to provide a starting point and baseline for workforce planning which could then be built on and expanded through future analysis and focus using identified workforce representatives at all levels throughout the sector.

1.2 Methodology

The methodology for the review focused on consulting with those within the current workforce, across the geographical regions of Northern Ireland. The views of under graduate students were also sought as they represent a substantial part of the future supply of the workforce.

All representatives were identified by the Project Board, Appendix 1, set up to manage this review.

The methodology adopted for this review contained the following:

- Key Informant Interviews: Semi-structured in-depth interviews were carried out with 14 key representatives, Appendix 2.
- Focus Groups: 7 focus groups were held made up of a representative mix of disciplines, grades and primary and secondary sector employees, Appendix 3.
- Literature Review and Desk Research: A comprehensive literature review was undertaken and it was key that these references were utilised to inform the project, Appendix 4.

2. CONTEXT

It was important to set this review within an appropriate context before carrying out any data gathering to inform the design of pertinent survey tools and ensure relevancy of conclusions and recommendations. This necessitated looking at the current situation with regard to the wider Health Policy context and the roles that Dietitians could play within this.

Health Policy Context

The overall aim of the Department of Health, Social Services and Public Safety is to improve the health and well being of the people of Northern Ireland within the resources available. It seeks to achieve this in ways which

- Are fair and equitable, targeting resources towards those in greatest need
- Listen to the views of users, carers and the public.
- Continuously improve the quality and clinical excellence of services
- Stimulate and support the formation of partnerships across all sectors to promote and improve health and well-being.

It must also seek to increase the effectiveness of clinical intervention. That is to maintain or improve health and to secure the greatest possible health gain from available resources. Those HPSS employees, which fall within the Allied Health Professions, specifically Dietetic, are key to achieving this overall clinical effectiveness.

In order to develop strategies that can ensure the correct numbers of these skilled employees are in place, working on an integrated basis and in the most effective way, offering maximum benefit to the health care team and optimal patient outcomes. Sir Maurice Hayes has further reinforced this in the Acute Services Review consultation document (May 2001) (1) where he states that the DHSSPS, in consultation with the service, should as a matter of urgency undertake an assessment of service needs and the skills and staff required to deliver these services efficiently and effectively. The report also stressed that there is the need to build up adequate contingency or even over supply of adequately prepared professionals so as to ensure that there is no repeat of difficulties of the past.

England has a 4% vacancy rate within the Dietetic workforce (March 2001) and competition between mainland UK and ROI has caused a drain of dietitians from the Northern Ireland HPSS. It is within this context that the workforce review for Dietetics is set.

Great Britain and Northern Ireland Context

The strategic focus outlined above was first detailed in 'The New NHS – Modern and Dependable' (2) which set out the Government's vision for the National Health Service (NHS) in England. The Government plans for NHS modernisation are intended to ensure a high quality, national service that is clinically sound, cost-effective and equitable. This was emphasised by Alan Milburn, speaking at Farnborough Hospital on 13 October 1999, saying, "By the time we finish our 10-year programme of modernisation, the NHS of 1948 will be unrecognisable. It will remain true to its values but they will be delivered in new and modern ways". The NHS white paper (3) and subsequent quality consultation document (4) identified requirements for consistent, high quality care throughout the health service and all health organisations, including primary care. This will mean that all areas of healthcare, including Dietetic deliver care to the patient in the most timely and most cost effective ways possible.

In line with the above, the Northern Ireland Executive in its Programme for Government 2001-2004 (5) identified "Working for a Healthier people" as one of its priorities and has stated that "we will work to reduce waiting lists, implementing new management arrangements, and recruiting additional front line staff".

The Programme focuses specifically on the following:

- Reducing preventable diseases, ill health and health inequalities
- Ensuring that the environment supports healthy living and that recreational facilities are improved
- Modernising and improving hospital and primary care services to ensure more timely and effective care and treatment for patients
- Enabling those who suffer from disability, chronic mental or terminal illness to live normal lives.

The Programme commits the Executive to the following actions, which affect Dietitians directly:

- Providing 40-50 extra specialist medical, nursing and other staff to improve treatment of people with breast, lung and colorectal cancers.
- Addressing workforce shortages in the health service.

The document 'Priorities for Action' (6) details the DHSSPS planning priorities for 2002-2003, in the context of the Programme for Government as

outlined above. It states the objectives, and targets that will ensure their achievement. In meeting it's responsibility for setting strategic direction, overseeing the delivery of the health and social services, the DHSSPS has set nine key planning goals for the HPSS in the next financial year. These include:

- To issue, and put in place the supporting structures for, the Investing for Health Strategy;
- To implement new arrangements in primary care, including the development of Local Health and Social Care Groups;
- To improve access to Hospital and Community services;
- To further develop the linkage and coordination between the primary, secondary and community care sectors to improve overall system capacity to manage peak periods of demand;
- To improve the community infrastructure to support long-term care of vulnerable groups in the most appropriate community setting.

Secondary Care

In the provision of secondary services, the Acute Hospital Review Group Report 2001(1) is the most recent document to address the structure of the HPSS as a whole in Northern Ireland. The Report highlights key recommendations, which include:

- To significantly shift the balance of care from secondary care to primary care.
- To provide acute hospital services that are consultant delivered rather than consultant led.
- Primary care organisations should be given the responsibility for the commissioning of community services and non-regional hospital services in the context of the strategic plan.

Developing Better Services (7) outlines a proposed model for future hospital services. The proposals will require £1.2 billion capital investment over a 9-year development period, and entail the following structures:

- Acute services to be more strongly patient-focused and organised around population groupings rather than facilities at 9 acute Hospitals;

- A number of new Local Hospitals, which will network with acute hospitals and local primary and community care to deliver services that do not need to be delivered in a large acute Hospital;

- Provision of Enhanced Local Hospitals at Downe and possibly Tyrone County Hospital;

- Provision of Consultant maternity in-patient services on 9 sites, and pilot of 2 stand-alone midwife led units.

Quality and Primary Care

The principles outlined above have been reinforced in the context of Northern Ireland in the recent Consultation Paper, "Best Practice – Best Care" (8). This paper, published in April 2001, focuses on the three interlocking strands of setting standards (improving services and practice), delivering services (ensuring local accountability) and improving monitoring and regulation of the services. In addition, identifying new ways for health professionals to be involved in the delivery of NHS services has been a key principle identified in the Consultation Paper "Building the way forward in Primary Care" (9), which clearly sets out a number of priority areas for development in primary care relevant to this review.

In Northern Ireland these proposals have been supported by the 'Allied Health Professions', which includes Dietitians. The position paper 'Primary Care – Professions Allied to Medicine' (10), endorses the priority given to breaking down traditional boundaries so that all care professionals use their skills in the most appropriate way to treat and care for people, the development of new and innovative models of service delivery and the support of emerging new professional roles. However in order for this to happen it is argued that there must be greater representation of the Allied Health Professions to influence the decision making process in strategic planning, policy formulation, commissioning and in the general management of the HPSS (11).

Public Health

In the UK, public health strategies have recently been produced for Scotland (Working together for a Healthier Scotland 1998) (12), Wales (Better Health – Better Wales 1998) (13) and England (Saving Lives: Our Healthier Nation 1999) (14).

In Northern Ireland "Investing for Health" (15), and "Well into 2000: A positive agenda for Health and Social Well-being" (16) underpin the government's vision for the Health Service. The proposals outlined in these documents encourage professions to work with the community to promote health and well-being rather than focus on the treatment of ill health.

"Investing for Health" (2002) highlights the important role that food and nutrition have on health and well-being, in:

"what we eat plays a vital role in determining our state of health. A good diet is essential for maintenance of good physical and oral health, and during pregnancy is important for the healthy development of the growing baby. Poor nutrition and high cholesterol can contribute to coronary heart disease, some cancers, diabetes, raised blood pressure, obesity, asthma, osteoporosis and dental decay."
(Investing for Health, 2002:53)

It is recognised that Dietitians play a significant role in health promotion and prevention of ill-health and disease processes through nutrition guidance.

The Dietetic Profession

The United Kingdom Parliament formally acknowledged the professional status of Dietitians by setting up the Dietitians Board under the Professions Supplementary to Medicine Act 1960. This gives a considerable degree of professional autonomy to Dietitians, enabling them to maintain their own professional discipline, set standards of conduct and to set standards of education and training for entry to the profession.

At March 2002 there were 5,469 Dietitians registered with the Health Professions Council. (17) Almost all of these (5,094) were registered with the professional body to dietitians, the British Dietetic Association. (18)

SUPPLY ISSUES

England experienced an increase in qualified allied health professional staff, including Dietitians during September 1999 and 2001, of approximately 7 per cent (19). Despite the increase in staff, the Department of Health has recognised that there are still areas of the country and professions where there are shortages. The shortfall in meeting the demand on the NHS was recognised beyond doubt in the NHS Plan (20). The Plan highlighted a commitment to increasing AHP numbers, suggesting that by 2004 there would be:

- Over 6,500 more therapists;
- 4,450 more therapists being trained and
- new therapist Consultant posts.

Evidence from the British Dietetic Association Annual Report 2001-2002 would indicate an increase in the dietetic membership from 4945 in February 2001 to 5094 in February 2002, an increase of 3.01% (18). The Dietetics Workforce in Northern Ireland has increased in recent years. Northern Ireland

had 108.5 whole-time equivalent Dietitians in post in 2001, a total of 6.5 more than in 2000.

The issues associated with the supply of Dietitians are detailed in subsequent paragraphs.

Remuneration

The pay structure for Dietitians provides three main clinical grades (Basic Grade/Senior II and Senior I) followed by Chief Grade (I-IV) and District Grade (I-II). Management posts are identified at the Chief and Unit Senior Manager II Grades. Agreement was reached however during 2001/2 on the introduction of Allied Health Professions Consultant Posts.

The salary structure is the same as that applied to the other PAMs professions of Occupational Therapy, Physiotherapy, Podiatrists, Orthoptists and Radiographers with pay awards determined by the National Pay Review Body for Nursing Staff, Midwives, Health Visitors and Professions Allied to Medicine. The Pay Review Body recommended a 3.7 per cent increase to basic salaries and an increase in on-call and standby allowances in 2001/2. One Discretionary Point was consolidated into the pay scales, introduced as a mechanism for staff to achieve recognition for having developed their role and skills. Staff are eligible for discretionary points after serving one year at the top of the scale. (21)

Like other NHS professions, the remuneration of Dietitians will come under new arrangements proposed under *Agenda for Change*. The timeframe for introduction of these arrangements within NI HPSS has not yet been determined.

Recruitment

Statistics from the DoH vacancy survey indicated that at 31 March 2001 England had 100 vacancies for dietitians, which equates to 4% of the workforce. (22) During January\February 2001, a survey of NHS Dietetic Services in the United Kingdom was undertaken by Pay and Workforce Research (PWR) on behalf of the Departments for England, the Scottish Executive Health Department, Welsh Assembly and Department of Health and Social Services in Northern Ireland. Information collected in relation to the number of 'live' vacancies for dietetic staff calculated as 195.95 wte as at December 2000, at 99 of 165 organisations (60%). (23)

There is evidence to suggest that the dietetics professions is experiencing recruitment difficulties. The British Dietetic Association Annual Report 2001-2002, highlighted the fact that one of the two main 'threats' to the profession was the dearth of clinical placements, affecting the ability to increase the

number of dietetic students and in turn affecting job recruitment. (18) The survey of National Dietetic Services indicated that over 72% of organisations reported that they had experienced recruitment difficulties in the previous 12 months. The most difficult posts to fill were reported as part-time posts, posts to cover for maternity leave, specialist posts, with particular reference to renal, paediatric, oncology and mental health services and Dietitians working in the community. (23)

Retention

The Dietetic Services survey also indicated that just over 33% of organisations reported that they had experienced retention difficulties in the previous 12 months. The main retention difficulties were noted as:

- Junior posts moving to more senior ones very quickly;
- Leaving for career development;
- Attracting back staff following a period of maternity leave;
- Lack of child care provision;
- Stress and workload;
- Relocation for personal reasons. (23)

Evidence from the BDA would also suggest that the percentage of Dietitians registered with the BDA and working in the NHS is decreasing- Thus 65% of Dietitians were registered with the BDA and working in the NHS in 2000. This figure dropped to 60% of the workforce in 2002. (21)

Return to Practice

Queen Margaret University College at Edinburgh has recently commenced a re-entrants to the profession course for Dietitians, and is expecting to run 2 such courses during 2002-2003. This is some reflection of the demand for such a course. (18)

Education and Training

A number of strategic documents review education, training and development for health professionals in England and Wales. *Educating and Training the Future Health Professional Workforce for England* (24) concluded that achieving the planned expansion set out in the July 2000 NHS Plan depends on increased investment in teaching staff and accommodation at higher education institutions; achieving value for money in the provision of training courses; a reduction in student drop out rates and a larger number of good quality practice placements.

England has experienced problems with recruitment and retention for AHP undergraduate places, with an average 20% under recruitment against available

places, and student attrition rates ranging from 6 to 10%. (24) The Department of Health's *Human Resource Performance Framework* (25) includes targets to reduce attrition rates, with the 2000/1 intake non-completion rate of pre-registration training not to exceed 10% for allied health professionals nationally. The Dietetic Workforce Baseline Study (2000) found that the number of applicants per undergraduate place available for Dietetics courses averaged between 5 to 10, with the highest number being at the University of Ulster averaging around 25 in most years. (26) The report indicates that under recruitment to undergraduate courses is variable commenting "the number of places left unfilled varies considerably between Universities and years." (26)

In Northern Ireland the overall number of university places for B.Sc (Hons) Human Nutrition course is 38-49 with 19 places in 2nd year for the B.Sc (Hons) Human Nutrition & Dietetics Course. In addition, the attrition rate is low in Northern Ireland with an average rate of 4% based on 3-year period (1999-2001).

Educating and Training the Future Health Professional Workforce for England (24) noted the availability of suitable practice placements as a critical limiting factor on the number of training places that can be commissioned and that given current staffing levels, most hospital departments are close to or have already reached their capacity for supervising students. As highlighted in previous paragraphs, the BDA indicated that one of the two main 'threats' to the profession was the dearth of clinical placements consequently affecting the recruitment of staff into the NHS workforce. (18, 23, 27)

Family Friendly Policies

The Dietetics Workforce in Northern Ireland is 100% female, and this has significant implications therefore for both part-time working and the need for family friendly working policies. The importance of having regard for the needs of a predominately female workforce is well documented in the Hayes Report (1).

In England and Wales, this is documented in the *Third Report of the House of Commons Select Committee on Health* (28). In considering NHS workforce issues the report details the government's commitment to introduce a range of family friendly policies including childcare facilities, flexible hours and job share opportunities and the fact that the NHS operates a comprehensive 24-hour service provides opportunities. There is therefore a need for an employer to allow staff to 'marry their work and out of work responsibilities'.

The Review Body for Nursing staff, Midwives, Health Visitors and Professions Allied to Medicine *Nineteenth Report* (2002) highlighted that three quarters of Trusts had implemented family-friendly policies such as flexible working,

annualised hours, term-time working and job-share. Almost two-thirds of those who had implemented these policies said that they were 'effective.'(21)

The survey of NHS Dietetic Services (2001) found that in 72% of organisations flexi-time\flexible working is available. The most common form of flexible working arrangement used was career breaks (74%). (23)

DEMAND ISSUES

Understanding the current and future demand issues within HPSS as they relate to Dietitians is essential in projecting future requirements for staff. The issues associated with the demand of Dietitians are detailed in subsequent paragraphs.

Societal Changes

The Department for Education and Employment, *Employers Skills Survey Report* (29) highlighted that there has been steady growth in demand that is expected to continue in the medium term, for the services of Professions Allied to Medicine. Factors contributing to this demand include ageing population, rising expectations of patients and government reforms including a move towards care in the community, more integrated multi-disciplinary services and the introduction of clinical governance. The report identifies that the picture within HPSS is one of changes in technology and ways of working requiring staff to have a greater range of skills and a higher level of skills.

The average life span is increasing by about two years every decade (30). OPCS data suggest that 16% of the population are aged 65 or more. The number of people in this age category has also increased by 6.15% during the last 10 years. Older people have a higher usage of all health services, consequently Dietitians will have an important role to play in the treatment of multiple pathology associated with ageing and the increased need for active rehabilitation in the older patient group.

Advances in medicine and technology have also impacted upon the demand for dietetic services. People with certain conditions such as life-limiting and terminal illnesses are now surviving, where previously they would not have done.

Service Demands

The importance of the nutritional care of patients was detailed in the Royal College of Physicians Report 'Nutrition and Patients' (2002) which recommended that nutritional screening of all patients should be an integral part of clinical practice. (31) Understanding the current and future demand issues within HPSS as they relate to Dietitians is essential in projecting future requirements for staff.

- **Diabetes**

The World Health Organization's report 'The World Health Report 1997' indicates that by 2005, cases of diabetes will double globally. (32)

At least 80% of newly diagnosed Type 2 diabetes are overweight (33). The relationship between obesity and blood glucose control, and other co-existing clinical conditions including dsylipidaemia and hypertension is well documented.

The results of the UK Prospective Diabetes Study (UKPDS) identified that 50% of newly diagnosed Type 2 patients had existing complications of retinopathy, hypertension and cardiovascular disease at diagnosis. (34)

Both the Diabetes Control and Complications Trial (DCCT) (35) and the UKPDS have provided evidence that dietitians are an integral component of diabetes management from patient diagnosis.

A recent survey by the Association of British Clinical Diabetologists has indicated that dietetic services were consistently understaffed with 97% of responses being below the recommended minimum level. (36) The recommendation is 22 hours WTE of dietitian with a special interest in diabetes per 100,000 population. (36)

The development of the National Service Framework for Diabetes indicates that a core of highly skilled NHS dietitians will be required. (37)

The 'Clinical Standards Advisory Group (CSAG): Standards of Clinical Care for People with Diabetes, HMSO, 1994' outlines the core aspects of the provision of care for people with diabetes. (38)

Dietitians in Northern Ireland have audited several of the standards. Only 42% of newly diagnosed Type 2 diabetics in the EHSSB, referred to the dietetic service were seen within 4 weeks of diagnosis. (39) This is re-enforced nationally by the Association of British Clinical Diabetologists.

19-26% of diabetic patients attending outpatient clinics received one dietetic contact over a 12 month period. This was not necessarily a non-crisis annual review as outlined in the CSAG Standards. These results are again similar to national surveys.

The dietitian is an integral member of the diabetes team in delivering comprehensive education to all newly diagnosed patients, annual review to all patients and minimum review to those requiring intensive education.

CSAG (1994) specified 'That each locality should have an identified senior dietitian to ensure the dietetic service to diabetes is clearly defined, well managed and relevant to the local population'. (38)

- **Heart Disease**

Coronary heart disease causes many deaths, much disability and consumes considerable NHS time and money to prevent and treat. It is estimated to cost the UK £10,000 million per year.

Coronary heart disease remains the most common cause of death in Northern Ireland. In 1999, approximately 20% of deaths in women and over 25% in men were accounted for by coronary heart disease. (40)

It is estimated that up to 30% of deaths from coronary heart disease are due to unhealthy diets.

The National Service Framework sets standards for the prevention, diagnosis and treatment of coronary heart disease using specialist, multidisciplinary teams that will lead to major improvements in quality and access. (41)

- **Cardiac Rehab/Post MI/Revascularization**

Research has shown cardiac rehab following a heart attack, helps recovery and reduces mortality. Diet is a key factor. Evidence based guidelines on diet in the secondary prevention of myocardial infarction (MI) have been produced and endorsed by the British Dietetic Association Dietetic Guidelines: (42)

Unfortunately, due to lack of resourcing, recent estimates suggest that only 45% of UK-wide dietetic departments are providing dietary advice consistent with best practice in this area. (43)

- **Heart Failure**

The prevalence and population burden of heart failure due to coronary heart disease is increasing despite the declining overall mortality from coronary heart disease. This is thought to be due to both an aging population and to more people surviving acute heart attacks but left with residual left ventricular dysfunction.

The incidence is about one new case per 1,000 population per year and is rising at about 10% per year. This increases with age to more than 10 cases per 1,000 population in those 85 years and over. (41)

Heart failure often has a poor prognosis with survival rates worse than for breast or prostate cancer. (44)

Heart failure accounts for about 5% of all medical admissions to hospital. People are frequently re-admitted with a re-admission rate of up to 50% over 3 months. About half of these admissions may be preventable (45, 46) One of the main reasons for re-admission is "non-concordance with diet". The annual cost for hospital treatment to the NHS is £400 million – 2% of the budget.

Dietitians have an active role to play in giving practical nutritional and dietary advice to patients in the various stages of heart failure:

- In acute event management through dietary modification to help minimize the damage to the heart
- By continued dietary support to help people stay out of hospital
- By more complex dietary modification and nutritional support to prepare people for transplantation
- To support people and their nutritional needs in the palliative phases.

The mortality rate for heart failure is higher than many forms of cancer (47), yet little attention has been given to the palliative care needs.

The prognosis of severe NYHA Class IV is similar to that of colonic cancer (25%) mortality per year.

DOH (1998) Report has suggested that advances in palliative care for cancer patients should be integrated into the care of those with clinically similar conditions. (48)

- **Renal**

The projected WTE need outlined above is based upon Mallick (1991) (49) and recommendations by the Nutritional Renal Workforce Planning Group of the British Renal Society (Summer 2002). The figure given will need to be re-evaluated following publication of the Regional Review of Renal Services (DHSS&PS) 2002.

- **Cancer**

The NHS Cancer Plan (50) and the Calman-Hine Report (51) in the UK were published with the aim to develop a network of care, which would enable the patient, wherever he or she lives, to receive a uniformly high standard of treatment and care.

To ensure that all people with the disease have rapid access to cancer services, the Campbell Report 'Cancer Services: Investing for the Future' (1996) (52) outlined the need for current services to be re-organized. The implementation

of the report would prioritise one regional cancer centre, based at Belfast City Hospital, and 4 additional cancer units, one for each Board area.

All patients with cancer should be managed by multi-disciplinary, multi-professional specialist cancer teams, as such care is associated with a better quality of life and an improved prospect of survival for the patient.

The Government's strategic document 'Investing for Health ' (15) states that cancer is the second most frequent cause of death with a chance of 1 in 6 men and 1 in 8 women dying before the age of 75 years.

Dietitians, as highlighted in the PAM Strategy for Cancer Services (53), play an integral part in the nutritional support of people, across all cancer and in palliative care. Malnutrition is recognized as the single most common secondary diagnosis in cancer patients.

Both the Acute Services Review (1) and Priorities for Action (6) identify the progression and development of the Campbell Report recommendations as key objectives.

- **Critical Care**

Malnutrition is widespread in both hospitals and the community. The main dietetic goal in critical illness is to prevent the deterioration in nutritional status associated with the stress response. Nutritional intervention alone is unlikely to dramatically alter the overall patient outcome but starvation will add to mortality and morbidity in both health and disease. Nutritional assessment by a state registered dietitian will identify those patients most at risk and those most likely to benefit from nutritional support. Research increasingly supports the benefits obtained in the provision of optimum nutrition in critical illness, with decreased length of stay in ICU/HDU beds and earlier rehabilitation.

The enteral route is the preferred method of nutrient administration in the critically ill patient. Dietitians have unique skills to provide a comprehensive assessment of nutritional intake, nutritional status and individual patient requirements, thus enabling the specific prescription of appropriate dietary management and use of artificial nutritional support.

The NHS Modernisation Agency in the critical care programme recommend that nutritional therapy should be an integral part of patient care and systems must be in place to ensure dietetic time is funded in line with service developments. To provide a dedicated service to critical care, a level of 0.05-0.1 WTE dietitian per bed is suggested (level 2 and level 3 beds). (54) This programme also identifies the need for a planned approach to human resources not only recognising the need for a better career structure and ongoing post-graduate training in order to recruit and retain experienced dietitians (at least

senior 1 grade) in critical care, but also the financial and professional support to facilitate this. The advent of dietetic consultants may promote this.

- **Health Promotion**

Healthy nutrition is identified as a key priority topic integral to lifestyle and lifeskills programmes promoted for priority groups and settings. Community based dietitians have a central role in facilitating accurate, consistent nutrition messages through nutrition training awareness and update sessions for key workers and the general public. This includes active participation in nutrition related programmes in communities, workplaces and schools. Community Dietitians are a scarce resource on the ground and nutrition promotion activities tend to be on an ad hoc basis. Investment in this service, dedicated to nutrition promotion activities is required to successfully implement the nutrition components of "Investing for Health"(15).

The major issues i.e. heart disease, strokes, cancers, accidents/falls, mental ill health, long-standing sickness and disabilities all have a significant nutrition component.

There are a number of community based nutrition programmes currently available which would be extremely valuable tools in targeting social inequalities, tackling social inclusion, addressing individuals in their social context, encouraging community activity and self help, especially in disadvantaged neighbourhoods.

These include:

- "Cook it" – a community based practical "hands on" cooking programme for people with minimal cooking skills which aims to promote healthy meals, and takes account of costs.

- "Activate" – a healthy lifestyle community based programme.

- Food and Nutrition Community Initiatives such as Saffron, which is led by a Community Dietitian and involves link workers to improve knowledge and awareness of nutrition.

Whilst there is much scope for increasing and expanding the use of these programmes in the community, the major restricting factor is the lack of available resources to enhance the health of our population.

- **Home Enteral Tube Feeding**

Recent trends in medical care have resulted in increasing number of patients being cared for in the community. Of particular relevance to Dietitians is the

substantial increase in the number of patients who are discharged from hospital to home with home enteral tube feeding. Percutaneous endoscopic gastrostomy (PEG) as a method of replacing feeding tubes into the stomach has had a particular impact on increasing the number of community-care patients (55). The increasing numbers of patients referred for home enteral tube feeding within Northern Ireland is highlighted by L'Estrange (1997) (56). During the 1990/1 there were 3 new patients on HETF referred to the EHSSB Community Nutrition and Dietetic Service; in 1995/6 this had increased to 43, and in 2000\01 to approximately 600.

A more recent study (2001) by Matthewson et al to a PEG advice team in an acute Hospital in Newcastle found that during a 2 year period, the rate of new PEG insertions increased by 53%, the rate of PEG replacements by 315%, and the number of patients under the team from 16 to 70, an increase of 337% (57).

Madigan (2002) investigated the needs of different patient groups receiving home enteral tube feeding. The primary underlying disease had an effect on the frequency of contacts with Dietitians, with those suffering from cancer requiring more follow-ups than others (58).

Service Developments\Role Extensions

A number of service developments are likely to impact upon the demand for dietetic services. They can be outlined as follows:

- **Prescribing Rights:**

The Health and Social Care Act 2001 contained enabling legislation to extent prescribing rights to other statutorily registered groups of healthcare professionals, including Dietitians. The BDA has established a Steering Group to look at prescribing across the profession (59).

- **Parenteral Nutrition:**

The Dietitian's role in the prescription and monitoring of parenteral nutrition has extended over recent years. In 1993 only 5% of Dietitians taking part in BDA membership surveys indicated that they assumed total responsibility for the formulation of parenteral nutrition regimes. However by 1995 14% of Dietitians indicated that this was the case. In addition 20% of Dietitians in 1995 had extended their role to include ordering of PN from pharmacy. 87% of those currently involved also wanted to have greater input in parenteral nutrition (60).

- **Developing the Clinical Specialist Role:**

In line with the Pay Review Body agreement during 2001/2, of utmost importance to the dietetic profession is the development of Dietetic Clinical Specialists.

Continuous Professional Development

In the UK, although there has been no statutory requirement, the Dietitian's code of professional conduct makes it clear that all Dietitians must continue to maintain and advance their knowledge and skills throughout their careers. In May 1998 the BDA published a policy paper on 'Continuing Professional Development for Dietitians' (61). This indicated that in order to demonstrate that a state registered Dietitian is keeping up-to-date, the minimum level of CPD activity per year was 5 hours attendance activity, plus another developmental activity from a designated list, or pursuing an approved post-registration activity. The Scottish Executive publication 'Building on Success' (2001) makes continuous professional development a requirement of all dietitians, stipulating that each professional should undertake 0.5 days of continuous professional development activity per month. (62)

An article published in the *Journal of Human Nutrition and Dietetics* in 2002 indicated that the dietetic profession anticipates that the Health Professions Council (HPC) established on 17 April 2002, will implement a system of providing continued competence to practice (63) in the future which will determine the level and nature of CPD required to have continued competence to practice.

The BDA's commitment to continuing professional development was highlighted in 1995 when they introduced the Diploma in Advanced Dietetic Practice. In 2001-2002, 11 Universities responded to the BDAs invitation to form a consortium to run a work-based MSc in Advanced Dietetic Practice. The BDA have set a target date of 2003 to start offering the MSc Programme (18).

The 2001 Survey of Dietetic Managers (23) indicated that the most common barrier to training and development indicated by 72% of all UK Trusts was affordability. The next most common barrier was staffing levels, which restrict time off for training, identified by 65% of Managers surveyed.

Research

Evidence-based practice through good quality audit and research, is vital if Dietetics is to develop as a profession. A recent postal questionnaire of 40 Dietetic departments selected from the BDA membership database found few respondents were currently involved in research (15%), although 65% were

involved in audit (64). The report concluded that, "the present level of Dietitians in research and audit activities falls below that recommended in the BDAs (1997a) *National Professional Standards for Dietitians Practicing in Healthcare.*" The report also identified that more time, greater access to funding, further training in research skills, more opportunities to get involved in research and better networking and dissemination of research findings within the profession being requested. A recent report completed by the Research and Development Office in Northern Ireland (65) found that the ratio of Dietetics staff involved in research was 1:10, and only 10% of Dietitians surveyed had a masters degree, with one Dietitian with a PhD The report concluded that much more needs to be done to support PAMS in this area.

The BDA launched a five-year Research Strategy in 2002. The Strategy outlines 5 aims accompanied by suggested objectives and action plans, the aim of which is to reinforce the importance of an integrated approach to research in Dietetics (66).

Skill Mix

The BDA AGM Resolution in 1998 recognised the issue raised in the BAPEN Hospital Food as Treatment Report (1999) (67), in relation to the role of Dietetic assistants in monitoring patient food intake in Hospitals, and thus increasing the quality of patient care. The profession agreed to develop the concept of the Dietetic Assistant and a working party was set up during 1999 to explore the tasks which Dietitians currently undertake which they feel could be delegated to a dietetic assistant and to explore the number of Dietetic Managers employing assistants.

Since 1999 the role of the dietetic assistant has been further developed, and during 2001-2002 the first dietetic assistants were welcomed as associate members of the BDA. The Survey of NHS Dietetic Services (23) (2001) found that 75% of organisations were introducing or planning to introduce the Assistant grade within their dietetic workforce.

The Northern Ireland Managers group explained as part of building a strategic plan, the issue of dietetic assistants and the use of nutrition graduates was being debated. There is currently a pilot scheme of a Dietetic Assistant post in Newry and Mourne HSS Trust.

Patient Expectations

There is an increasing awareness of the importance of nutrition among health professionals and the public. This has led to a growing demand for dietetic and nutritional advice. However, a random sample of 165 individuals in a supermarket in Aberdeen found that the general public had a good perception of the role of physiotherapists, but a poorer perception of the Dietitians' role

(68.) It was found that 26% of the sample thought that Dietitians distributed and collected hospital menus and 21% thought Dietitians prepared meals in Hospital. Access to Dietitians was mentioned as a problem, and for this reason the preferred choice for nutritional information was the doctor, followed by the practice nurse and health food shop.

3. FINDINGS – DATA ANALYSIS

This section details the findings of the analysis of the workforce profile information.

3.1 Workforce Demographic Profile

Available information was compiled of the current demographic profile of the Dietetic workforce of Northern Ireland to use as baseline information. The key sources utilised are highlighted below:

- The DHSSPS Project Support Analysis Branch (April 2002) sourced from-
  - HRMS – current HR system in use by the Trusts across Northern Ireland.
  - PMIS – current HR system in use by the Department at a regional level.
- DHSSPS – Workforce Questionnaire, April 2002.
- University of Ulster – Students statistics.

3.2 Current Regional Profile of Dietetic Workforce

In Northern Ireland there are currently 139 state registered Dietitians working in the HPSS (15 Trusts) in N.I. The total number of posts is 147 when the 8 vacancies are included.

The workforce is 100% female.

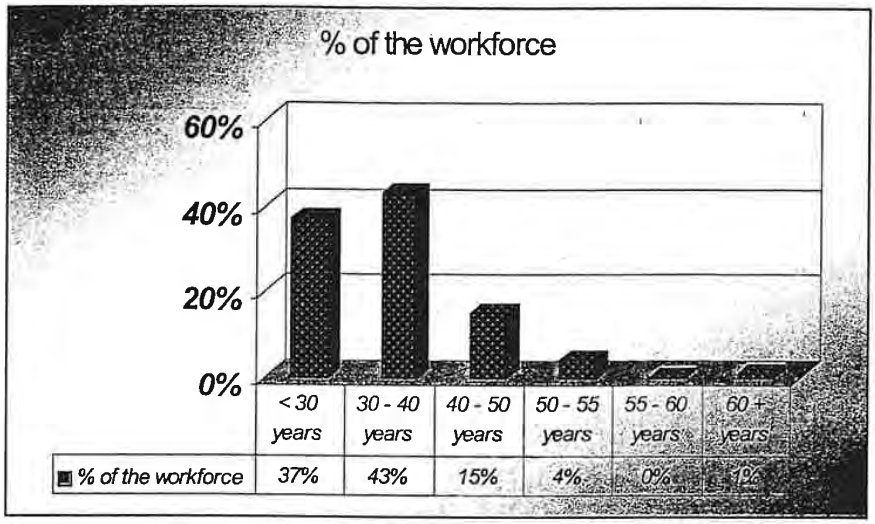
In addition, two Trusts are recorded as employing 2 Dietetic Bank staff (one of the two works permanently in another Trust).

The source of this information is the DHSSPS Data Base (April 2002).

3.3 Age Profile

The age profile of the workforce is detailed in the graph below:

3.3.1: Graph: Age Profile : Dietitians – April 2002



Source HRMS

The data indicates that 95% of the workforce is under 50 years of age with 80% of the totally female workforce less than 40 years of age.

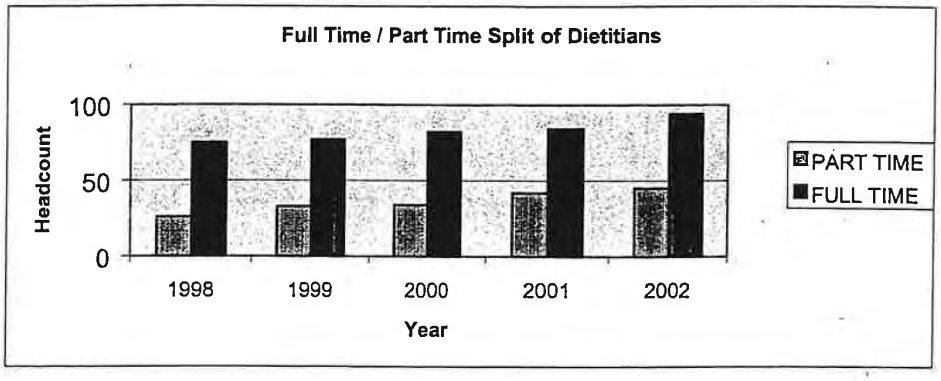
3.4 Full Time / Part Time Profile

The number of dietitians working part time has increased over the past 5 years, from 26 in 1998 (26% of the total workforce) to 45 in 2002 (32% of the workforce) Overall the workforce has grown quite significantly by 33% (90.24 WTE to 120.14 WTE) over the period 1998 – 2002.

3.4.1 Table: Full time/Part time Split by Year

FULL TIME			PART TIME		
1998	75	74.3%	1998	26	25.7%
1999	77	70.0%	1999	33	30.0%
2000	82	70.7%	2000	34	29.3%
2001	84	66.7%	2001	42	33.3%
2002	94	67.6%	2002	45	32.4%

3.4.2: Graph: Full time/Part time Split by Year



Source HRMS

3.5 Headcount to Whole Time Equivalent Breakdown

Based on the available data, information can be presented on the ratio of current numbers of full time to part time dietetic staff, shown as actual headcount to whole time equivalent.

3.5.1 Table : Headcount to WTE Ratio

Total Headcount	139
Total WTE	120.14
Headcount/WTE	Headcount = 1.16 WTE

The figure indicates that for every WTE dietetic post, the equivalent of 1.16 staff must be employed within the service.

3.6 Workforce Profile By Grade

An analysis across all HSS Trusts of grade profile of the dietetics workforce is detailed in the table below.

3.6.1 Table : Grade Profile - *(Source HRMS)*

Grade	F/T	P/T	Total	% of total
Basic / Graduate	11	3	14	10%
Senior II	27	6	33	24%
Senior I	41	30	71	52%
Chief IV	3	3	6	4%
Chief 111	10	3	13	9%
Senior Manager	2	0	2	1%
TOTAL	94	45	139	100%

The table indicates that the highest proportion (52%) of staff are graded at the senior clinical grade (ie Senior 1) only 10% of staff are employed at basic/grade level.

3.7 Workforce Profile by Board

The Dietetic statistics were analysed by each Health and Social Services Board.

3.7.1 Table: Full time/Part time Split by Board

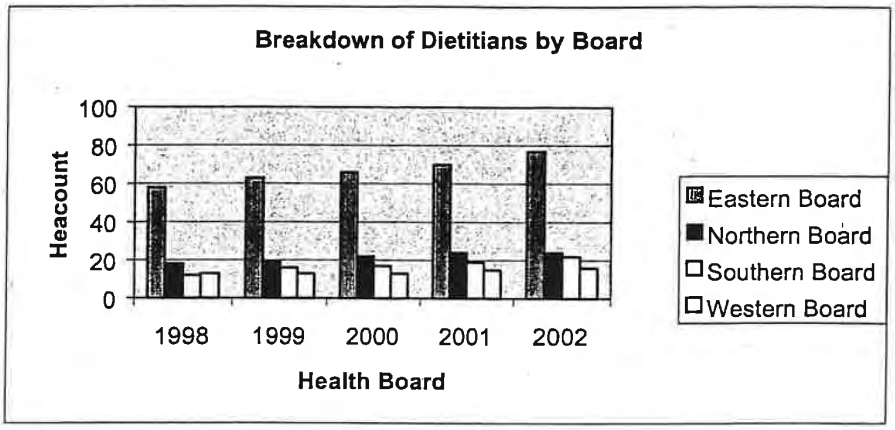
	Part time		Full time		Group Total	
AREA BOARD	Count	WTE	Count	WTE	Count	WTE
EASTERN	23	12.93	54	54	77	66.93
NORTHERN	11	6.13	13	13	24	19.13
SOUTHERN	9	5.88	13	13	22	18.88
WESTERN	2	1.2	14	14	16	15.2
Group Total	**45**	**26.14**	**94**	**94**	**139**	**120.14**

Source HRMS

3.7.2 Table: Analysis of Dietitian numbers (headcount) per Board

Board	1998	1999	2000	2001	2002
Eastern	57.4% (58)	56.8% (63)	55.9% (66)	54.7% (70)	55.4% (77)
Northern	17.8% (18)	17.1% (19)	18.7% (22)	18.8% (24)	17.3% (24)
Southern	11.9% (12)	14.4% (16)	14.4% (17)	14.8% (19)	15.8% (22)
Western	12.9% (13)	11.7% (13)	11.0% (13)	11.7% (15)	11.5% (16)

3.7.3 Graph: Analysis of Dietitian numbers (headcount) by Board



Source HRMS

3.8 Vacancy Analysis

The workforce questionnaire completed by the service managers provided details of the vacancy profile at April 2002. The analysis of the vacancies is detailed below.

3.8.1 Table: Workforce Profile of Vacancies by staff grade – April 2002

GRADE	F/T	P/T	TOTAL	% TOTAL
BASIC	1	1	2	**25**
SENIOR II	2	0	2	**25**
SENIOR I	1	3	4	**50**
TOTAL	4	4	8	**100**

Source: questionnaire

Vacancy Analysis / Total Workforce

The information from the workforce questionnaire at April 2002 indicates current vacancy rate of 5.4% within the HPSS Dietetic workforce. This is calculated as follows:

- Staff in post 139
- Vacancies 8
- Total workforce 147
- Vacancy % rate 5.4%

It can be noted that between 1998 and 2002 Dietetic posts increased by 33% (1998 – 90.24 WTE; 2002 – 120.14 WTE)

3.9 Recruitment and retention of Staff

Managers were asked within the questionnaire to identify the number of staff they had been able to recruit from universities or employers outside of N.I. The figures provided indicated that on average (across the last 3 years):

- An average of 1 new graduate from universities outside of N.I. returned each year to find their first job within N.I.
- On average 5 qualified staff returned each year to the N.I HPSS workforce after working as therapists elsewhere.

In relation to retention of staff, managers returned the following information:

- 6 staff per annum left the HPSS workforce during 1999 – 2002 (which equates to approximately 4% of the workforce).

  Three staff commenced a career break in the last 3 years (an average of 1 per year)

The figures provided have informed the development of the supply projections detailed in future sections of the report.

3.10 Pre-registration Education

There are two courses leading to State Registration in Dietetics located at the Coleraine campus of the University of Ulster.

- There are 35-50 students who enter the BSc (Hons) Human Nutrition degree course. At the end of year 1 there is an option to progress to either the BSc (Hons) Human Nutrition and Dietetics (with eligibility for State Registration in Dietetics) or the BSc (Hons) Human Nutrition with DIS/DAS. Entry to the dietetics option is by application and competition as places are limited to 15-19 per annum. Currently students receive a bursary from year 2 of the honours course. From 2003 there will be direct entry in year 1 to the BSc (Hons) Human Nutrition and Dietetics course.

- Post-graduate (Master of Science) Human Nutrition and Dietetics course, which is of a 2-year duration. Entry requires a science degree. There are 5 student intake places for the course annually which is limited by the number of available clinical dietetic placements. Students on the PgD/M.Sc course are self funding except for some Republic of Ireland students who may be funded by their County Councils.

3.10.1 Table: Dietetic Clinical Placements (undergraduate and postgraduate courses)

PLACEMENTS	2000	2001
Northern Ireland	6	7
Scotland	6	2
England	12	10
TOTAL	24	19

3.10.2 UU course Attrition Rates and Graduate Statistics

Applications to initial student intake places is on a ratio of 6.2:1. There is a minimal attrition rate of 4% during the two courses based on an average of the 3-year period (1999-2002).

3.10.3 Table: UU entry places and graduation statistics for BSc (Hons) Human Nutrition and Dietetics; and PgD/(MSC) Human Nutrition and Dietetics courses

B.Sc (Hons) Human Nutrition and Dietetics			PgD(MSc) Human Nutrition & Dietetics		
Entry Year 1 (Human Nutrition)	Entry Year 2 (Dietetics)	Graduate Year 4 (Dietetics)	Entry	Graduate Year 2 Dietetics	Attrition Rates
1994 - 28	1995 - 12	1998 - 13	-	-	0%
1995 - 46	1996 - 20	1999 - 20	-	-	0%
1996 - 33	1997 - 13	2000 - 12	-	-	7.7%
1997 - 28	1998 - 18	2001 - 17	1997 - 5	1999 - 5	5.5%
1998 - 36	1999 - 15	2002 - 14*	1998 - 5+6=11	2000 - 11	0%
1999 - 33	2000 - 15	2003 -	1999 - 5+3=8	2001 - 8	-
2000 - 36	2001 - 19	2004 -	2000 - 5	2002 - 5	-
2001 - 49	2002 - 19	2005 -	2001 - 5	2003	-

Source: UU

* 1 student on leave of absence, expected graduation in January, 2003

Based on this information the anticipated number of graduates can be estimated over the 5-year workforce plan.

3.10.4 Table: Number of Graduates over 5-year workforce plan

Entry Year		Combined Student Places		Attrition rate	Graduation Year	Graduate Numbers
Hons	PgD	Hons	Pgd			
1999	2001	15	5	4%	2003	20
2000	2002	18	5	4%	2004	23
2001	2003	19	5	4%	2005	24
2002	2004	19	5	4%	2006	23
2003	2005	19	5	4%	2007	24

3.10.5 First Destination for UU Graduates

First destination figures for graduates have been provided by the UU.

3.10.6 Table: First Destination Statistics for UU Dietetic Graduates

Year	B.Sc (Hons) Human Nutrition & Dietetics				PgD/M.Sc Human Nutrition & Dietetics				Total Graduates	
	NI	UK	RoI	Other	NI	UK	RoI	Other	Nos	% Entering NIHPSS
1998	7	5	1	0	-	-	-	-	13	53%
1999	4	11	3	2	2	3	0	0	25	24%
2000	2	7	2	1	0	4	6	1	23	8.6%
2001	8	6	3	0	2	3	3	0	25	40%
2002	6	4	4	0	3	0	2	0	19	47%

Entering NI = Northern Ireland HPSS; UK = UK NHS, RoI = Republic of Ireland, Other = non-dietetics

Source UU

The proportion of graduates remaining in Northern Ireland to work in the NIHPSS has increased significantly over the last two years.

The figures indicate that an average overall total of only 31% (based on the 3-year period 2000-2002) of graduates took up employment in the NIHPSS workforce. It is noted that there has been a considerable improvement in retention of graduates over the last two years and if this trait continues an improvement on this statistic may well be achieved.

3.10.7 Pre-registration Clinical Placements

Dietetics student clinical placements have consisted of 6-weeks catering placement and 28 weeks clinical dietetics placement (including 4 weeks at a complementary hospital). From 2002 the placements are being changed to three blocks of 4, 12 and 12 weeks respectively with associated changes in

assessment and documentation. The new placement system will be introduced for University of Ulster students entering the course in 2003.

Dietetic Managers and Senior Staff have traditionally supervised and supported the students whilst on clinical placement as there is no existing framework consisting of clinical tutors and or supervisors. To support the new clinical placement system the Dietetic profession in Northern Ireland have identified the requirement of a Dietetic Clinical Placement Facilitator (1WTE). This post could provide support, co-ordination and training for clinical placements on a regional basis.

It has been identified that staff participating in student placements should have an allocated time requirement to teach and mentor students. It is suggested this requirement equates to 3-hours per week over the course of the student placement.

The figures provided in this section will inform the future supply projections for the workforce over the 5-year period 2002-2006.

4. KEY FINDINGS IN INTERVIEWS AND FOCUS GROUPS

4.1 Supply Issues

This section provides details of the views expressed throughout the 12 key informant interviews and 7 focus groups involving 40 Dietitians and 17 University of Ulster nutrition and dietetic final-year students. Many of the issues raised by different individuals were consistent and provided valuable information, which has informed the development of the recommendations and conclusions contained in the report.

4.1.1 University of Ulster Students and Graduates

The focus groups mentioned that the Post Graduation Master Science (PGMSc) course was self-funding and this was an issue for students. However they indicated that some ROI students were granted funding by local councils.

Participants within the University of Ulster focus groups highlighted that their frustration upon graduating was the lack of full-time permanent posts in Northern Ireland, as one student implied, "5 places have been advertised this year, all temporary to cover maternity leaves." This coupled with the fact that there are increasing employment options and incentives now offered to graduates outside of N.I., meant that a large number of graduates were attracted to taking up first posts outside of HPSSNI. The employment incentives noted were as follows:

- Employed at Senior II level, as opposed to Basic Grade
- Locum posts offering experience in different hospitals
- Guarantee of better continuing professional development opportunities

Participants in the focus group also indicated that because of the large number of clinical placements currently undertaken outside of Northern Ireland, there was an increased possibility of students being attracted to England\Scotland, and\or receiving job offers from hospitals where they undertook their placement.

The low retention of UU graduates within the HPSS workforce is a particular issue impacting upon the supply of dietitians.

4.1.2 HPSS Recruitment

Nearly all Managers interviewed indicated that they had experienced recruitment difficulties. The recruitment difficulties experienced were four-fold, and can be detailed as follows:

- ***Temporary posts*** – a quarter of those who indicated that they had experiencing recruitment difficulties, highlighted that their difficulties experienced were recruiting to temporary posts.

- ***Recruitment post graduation*** – a third of Managers highlighted the issue of recruiting graduates after the summer period as they by that time have taken up posts elsewhere.

- ***Recruitment to part-time posts*** – a quarter of Managers also highlighted the difficulties of recruiting to part- time posts. The number of part-time posts advertised had increased because of Managers having to facilitate requests for reduced hours, or Managers receiving funding for less than a whole-time equivalent post, because of the issues associated with business case preparation spread across programmes of care.

- ***Recruitment to specialists posts*** – a small number of Managers reported difficulty recruiting to specialist posts in the clinical fields such as oral health, paediatrics, diabetes and critical care.

The majority of Managers indicated that recruitment difficulties started 18 months to 2 years ago, and that difficulties were increasing as the pool of applicants for posts was effectively decreasing. Staff involved in the key informant interviews indicated that Senior I and Senior II posts attract on average 1-3 applicants, whereas 5 years ago, they would have attracted approximately 6-8 applicants depending on the type of post and location.

When asked to identify any grades and\or areas of work where it is harder to recruit staff, difficulties were being experienced at all levels. The largest number of Managers, 5, reported difficulties being experienced when recruiting to Senior II level. However, a quarter of Managers highlighted difficulties experienced when recruiting to Basic Grade and Senior I posts.

The key informants indicated that in the main staff were being recruited from within Northern Ireland HPSS. Managers reported that the situation was one of "robbing Peter to pay Paul" in recruiting to posts, as one Manager suggested, "*we fill posts at other Trusts expense within Northern Ireland- there is no new blood.*" However over a third of Managers also reported recruiting returners who had been to England\Scotland to work, but were from Northern Ireland and wanted to return to the region.

Key informants highlighted that the recruitment difficulties experienced had resorted in creative ways in which to recruit staff, but this had also led to them lowering criteria for posts. One such example was for posts at Senior II level which Managers had reduced the criteria from normally 1 year to 9 months experience, to attract applicants.

4.1.3 Temporary Staff

Five Managers interviewed reported employing temporary staff. This was largely to cover maternity leave.

4.1.4 Bank Staff

One Manager reported using Bank staff. However, a small number of Managers indicated the need to consider establishing a Regional Bank of staff.

4.1.5 HPSS Retention

Almost all Trusts, 10, reported no difficulty retaining staff, and reported that they had a stable workforce. The majority of staff left for promotion reasons, although other reasons noted were to reduce travelling time, for the location of the Trust, because of nature of the role, which involved working independently at Senior II grade, and because of incentives offered by the ROI. Indeed, one Trust had lost 3 members of staff recently to the ROI.

Of the 2 Trusts who reported difficulties in retaining staff, the difficulties were described as being due to the high caseload, and lack of a career path.

4.1.6 Family Friendly Policies/Career Breaks

With an exclusively female workforce, all respondents in the key informant interviews, with the exception of one Trust, reported increasing requests for flexible working. The requests for flexible working were indicated as: 7 requests for reduced hours, 1 for unpaid leave, 1 for job share, 2 for changing the profile of working hours and 4 for a change to an 11-month contract.

Two Trusts interviewed indicated that they had experienced requests for a career break. One of the staff on a career break had returned to work and one was still on leave so no comment could be made about their likely return to the HPSS workforce.

The number of requests for flexible working, per Trust, was approximately 1-2 per annum. All of the key informants interviewed reported taking a positive approach to requests, providing the requirements of the service were met.

4.1.7 Private/Voluntary Sector

The impact of the private sector on the recruitment and retention of Dietitians was reported as minimal. However, three Trusts reported knowing of staff working in private Hospitals, however it was unclear whether this had caused staff to leave particular Trusts. Three key informants also highlighted that they were aware of staff working in Sports Nutrition. However, it was unclear as whether these Dietitians were working in a dual role context between NHS and private practice. A small number of Trusts also reported that staff had left to join nutrition companies, such as British Sugar and Cow and Gate, as a sales representative or research capacity. All Trusts indicated that the number of staff working in private practice solely was minimal.

Two Trusts reported that they had been approached by voluntary groups to undertake nutrition talks.

4.1.8 Working hours, terms and conditions

Key informants indicated that contract for staff working hours was 36.5 hours per week. A quarter of Managers interviewed however, reported that staff were working longer than 36.5 hours and this was an issue.

Almost all Managers interviewed indicated that staff worked between 9 am to 5 pm. Participants in the majority of focus groups reported that their Managers were flexible in their approach to working hours. As one focus group participant suggested, *"Managers are very good at facilitating the terms and conditions of the working week."*

Half of all Trusts interviewed were providing evening or weekend clinics, or twilight sessions to the Trusts' Renal Units. In 4 out of 5 professional focus groups, staff also reported providing workshops\talks in the evening. Managers facilitated this by allowing staff to take time off in lieu. Overtime was only paid in a small number of cases on an adhoc basis, for example, winter pressure initiatives.

A number of issues were raised within the focus groups with regards to the terms and conditions on offer. The remuneration of staff was raised as an issue in all of the focus groups, for a variety of reasons, which can be noted as follows:

- staff covering jobs above their grade
- the lack of comparison to the remuneration of speech and language therapists
- the salary does not reflect the level of responsibility when working in a multi-disciplinary team
- ill-feeling caused by the use of discretionary points

4.1.9 Career Progression

Career progression was a common area of concern and the lack of career progression at every level was documented in both the key informant interviews and focus groups.

The largest area of concern highlighted during the key informant interviews was the lack of specialist posts at Chief III level. Two thirds of interview respondents highlighted this as an area of concern. The second key area of concern expressed by the Managers was the limited opportunities for progression of staff above Chief III level within Trusts. Other issues highlighted by individual Trusts specifically were the lack of Basic Grade posts, lack of career progression to Senior I, and the lack off pay increase between Senior I and Chief IV which did not entice staff to take on managerial positions.

For focus group participants, areas of concern were highlighted at each stage of career progression. At Basic Grade level a number of issues were raised. The most highlighted issue was that of the provision of temporary posts in Northern Ireland. Focus group participants also highlighted the fact they there were offers of jobs at Basic Grade level in England which were permanent and therefore more attractive to career development. In addition, participants in the WHSSB area focus group also indicated that the ROI was now offering recruitment incentives.

Focus group participations highlighted in addition to the problems of recruitment at Basic Grade level there was concern that Basic Grades were undertaking Senior II level duties. This was indicated by participants:

"We should find time for Basic Grades to be Basic Grades."
"There is so much expected of a Basic Grade. They are expected to be a Senior II when they are just out the door."

Alongside this focus group participants both queried the need for a Basic Grade post, and proposed that if the Basic Grade post was retained, whether there should be automatic upgrading after a period of time to Senior II.

In 3 out of 5 professional focus groups the lack of career progression from Senior II level to Senior I, was also highlighted as an issue. Participants suggested that *"the only way to get a Senior I post is if it is part of a service development."*

The limited opportunity for career progression once at Senior I level was also highlighted in all 5 professional focus groups. It was reported that an active decision was currently made at Senior I level as to whether staff wanted to

leave the clinical route and become a Manager, because of the lack of opportunities for clinical specialist posts. It was highlighted that becoming a Manager was becoming less appealing because of the additional responsibility and the limited pay differential between Managerial and clinical grades.

"Chief IV is a pat on the back. You don't have a real remit."

"You are in a dead end at Senior I. Chief IV do come up, but there is no incentive, with no extra money."

"If you like clinical work, you don't want to go into management, so you spend the next 30 years sitting with the same pay cheque."

Despite all of the issues raised, both the key informants and focus group participants highlighted the fact that opportunities for career progression have improved in the last 2 years, if you are prepared to work anywhere in Northern Ireland.

4.1.10 Continuing Professional Development (CPD) and Research

All staff acknowledged the importance of CPD in terms of ensuring their ability to perform and meet the demands of the service. The issues raised in relation to CPD opportunities can be highlighted as follows:

- ***Funding*** – Almost two-thirds of interview respondents and in all 5 focus groups the issue of limited funding for continual professional development opportunities was raised. Both key informant interviews and focus group participants identified the need to secure funding from other sources to undertake CPD. As one focus group participant suggested, *"You have to beg the pharmaceutical providers."*

- ***Time Factor*** – This issue was raised by a quarter of interview informants and in all 5 professional focus groups. Staff participating in the focus groups indicated that the issue around time was two-fold. The first issue highlighted was the fact that large caseloads prevented you from taking time off to undertake CPD. The second factor presented highlighted the fact that the lack of protected time for CPD meant that on returning to work you were presented with the caseload that you had left behind.

  "You don't want to go on a course because of the workload that you confront when you come back."

  "If you do get time out, no-one is doing your work for you, so you come back to 5 days work."

- ***Provision*** – Half of all key informants and almost all focus group participants raised the issue of the availability of course\conferences in Northern Ireland. Staff reported that specialist courses were provided in England, and this incurred additional expenses and time for staff.

- ***Research*** - This issue was raised in a small number of key informant interviews and focus groups. The key informants and focus group participants indicated that there is a lack of much needed dedicated research posts within the profession.

4.2 DEMAND ISSUES

All of the key interview respondents expressed concern about the inability of HPSS to meet the demand for dietetics services both currently and into the future.

4.2.1 Current Services

A number of the key informants indicated that there has been increasing demand for dietetic services year on year. The evidence from the key informant interviews suggested that there were a large number of areas of current unmet need/demand for dietetic services, which were documented as follows:

- Diabetes
- Nutritional support
- Health promotion
- Coeliac disease/gastroenterology
- Oncology
- Stroke
- Mental health
- Learning disability
- Obesity
- Eating disorders
- Brain Injury
- Waiting lists for first assessment
- Renal

4.2.2 Administration

The majority of focus group participants indicated that as the number of patient contacts in Dietetics in recent years had increased, so too had the paperwork associated with them. This, they perceived had not been reflected in adequate resourcing of clerical staff, and thus was impacting upon the Dietitians time ability to provide a service. One Trust Manager indicated that the Senior I Dietitian spent 50% of her time in clerical and administration duties. Focus

group participants indicated that the amount of time spent on clerical tasks had also increased out of a need to maintain good records because of increasing legislation, increasing litigation, increasing Parliamentary questions, and increasing audit and performance review. As one participant suggested:

"We didn't use to have half of the administrative work, that we do now. It reflects the development of clinical care, that for ethical and legal reasons you have to document everything."

4.2.3 Increased Focus on CPD

Both the key informants and participants in the focus group sessions highlighted the increasing role of continual professional development, given the likely introduction by the new Health Professions Council of a requirement for a minimum number of CPD days to be undertaken by qualified staff, and the growing emphasis on clinical governance within HPSS organisations.

4.2.4 Provision of Clinical Placements

A new system of clinical placements was introduced in Northern Ireland in 2001/02. The new system provides a 4-week clinical placement in Year 1 and 12 weeks in Years 2 and 3. All Trusts interviewed currently provide clinical placements to some extent.

Managers participating in the key informant interviews levied a number of barriers to clinical placements. They can be detailed as follows:

- ***Time pressures on staff*** – Almost two-thirds of interview respondents raised this as an issue, particularly given the amount of paperwork associated with supervision.
- ***Allowances*** – This was raised by a third of key informants as being an issue. The Department currently provides £60 per student per week, which Managers suggest does not cover the cost of the student.
  University of Ulster undergraduates participating in the focus groups also raised an issue regarding funding for placements outside Northern Ireland.
- ***Accommodation*** - This was raised by a third of key informants interviewed. Managers expressed concerns at physically having difficulty accommodating students within their Departments and in residential accommodation.

Issues were raised by a number of key informants:-

- The impact on delivering the dietetic service of providing student clinical placements.

- Training was required for supervisors and students need to be better prepared for clinical placements in terms of their practical knowledge.
- Managers highlighted the fact that the national brokerage system and clinical facilitator currently provided through the BDA would cease to operate in the long-term. This would have implications on the organisation of the system for placing students, and was therefore causing concern amongst service Managers.
- A number of Managers proposed that a Clinical Facilitator was required for dietetic education within Northern Ireland.

4.2.5 Increasing Patient Expectations

Focus group participants raised a number of issues about the demands placed upon them by increasing patient expectations. The main issue raised was that patients' and relatives expectations in general are higher. Focus group participants also indicated that patients are more knowledgeable about their rights through increased availability and access to information. As one focus group participant suggested:

"The elderly patients might not be as keen to make complaints. But, the relatives come through with, 'I've read this."

Dietitians participating in the focus groups also indicated that patients often had a misunderstanding of the Dietitians role, perhaps caused by their title. *"There's an expectation that Dietitians will put you on a diet."*

4.2.6 Role Extensions

Examples of where the role of dietetics has had an impact or could in the future are detailed below:

- Diabetes- the role of Dietitians in changing insulin regimes ie prescribing;
- Nutritional support – the passage of NG/PEG tubes by Dietitians.
- Dietitian led coeliac clinics.
- Extended role in eating disorders.
- Parenteral nutrition – insertion of peripheral medlines.
- Sports nutrition.
- Clinical specialist role development.

4.2.7 Skill Mix

Only one of the 11 Managers interviewed employs a Dietetic Assistant as a pilot scheme. All of the respondents in the key informant interviews and focus groups welcomed the role of the Assistant, with some restrictions. Staff within the focus group sessions indicated that the Dietetic Assistant role must not be

employed instead of a qualified Dietitian, and that there must be clarity around the role and function of the Assistant. Possible roles for the Dietetic Assistant highlighted in both the key informant interview and focus groups were ensuring ultimate efficiency during the day by organising patients prior to the Dietitians visit, liasing with catering to get dietary supplements for patients, facilitating group work sessions on good eating, monitoring nutritional support, patient documentation, stock control and clerical and administrative tasks.

The issue of inappropriate skill mix for professional staff was also highlighted in both key interviews and focus groups. The issue most commonly expressed was the requirement for the development of clinical specialist roles and grades. In addition, a number of key informants also expressed concern at the current system whereby they felt that Basic Grade staff were undertaking Senior II tasks, and Senior II staff undertaking Senior I tasks.

Key informants also highlighted the fact that there was a flat managerial structure, therefore limiting the ability for deputisation, delegation of tasks and succession planning.

4.2.8 Changing Service Provision

Participants in both the key informant interview and focus group sessions highlighted a number of different ways in which they envisaged the provision of dietetics services changing and/or developing in the future. These can be outlined as follows:

- ***Multi-disciplinary working-*** Half of key informants, and 3 of the focus groups envisaged that multi-disciplinary working is a key initiative for taking forward different ways of working within the profession. Examples in elderly care services, diabetes and oncology were sited.
- ***LHSCGs*** – A quarter of key informants indicated that LHSCGs would provide opportunities for establishing different ways of providing a service within the profession.
- ***Seamless Service-*** A small number of interviewees and 2 focus groups indicated that their aim should be to provide a 'seamless service.' Focus group participants suggested that a proposal might be the establishment of acute\community liaison posts.

Other areas highlighted in the key informant interviews and focus groups were the provision of health promotion in school and community settings, the role of Dietitians in Sure Start projects and in educating other professionals such as District Nurses in health promotion, hospital to home schemes and weight management strategies such as that developed in Scotland which allows patients to refer themselves voluntary to weight management groups. An additional initiative concerning different ways of working within the profession, which was highlighted by some participants

was the development of teams of Community Dietetic Services across Trusts within one Board area, such as the model adopted in the EHSSB area.

4.2.9 Societal Factors

The majority of respondents highlighted the following societal factors as necessitating an increase in demand:

- ***Ageing Population*** - advances in medicine and technology have resulted in people living longer and this has resulted in an increase in referrals.
- ***Increased Dependency*** – again in relation to the above, it is now recognised that those who receive care are generally more dependant than before and this brings about a more resource intensive service.
- ***Medical Technology*** - advances in medicine and technology have resulted in people with certain conditions surviving, where previously they would not have done eg there are more people with terminal illnesses or life-limiting illnesses surviving longer.

5. WORKFORCE SUPPLY AND DEMAND PROJECTIONS

The Project Board agreed a set of assumptions around key supply and demand factors that are and will affect the Dietetic workforce in the next 5-years. These assumptions were then used to formulate a " model" from which certain predictions around projected supply and demand could be calculated. The key assumptions utilised have been outlined.

5.1 SUPPLY PROJECTIONS

The supply figures have been gathered by reviewing trends over the past 3-4 year period, presented in the data supplied by the DHSSPS, University of Ulster and Dietetic Managers from within the service.

The supply of Dietetics within the NI workforce is in the main determined by:

- The existing employees currently available in the workforce;
- Students graduating from the University of Ulster;
- Students returning to work in NI after graduating from a university outside of NI;
- Professionals leaving the workforce (through retirement, leaving for personal reasons, career breaks etc).

5.1.1 Supply assumptions for those entering the workforce

There is a total of 139 Dietitians within the current HPSS workforce.

In Northern Ireland, pre-registration training in Dietetics is offered at the University of Ulster Coleraine. There are currently 19 and 5 places respectively on the B.Sc (Hons) Human Nutrition and Dietetics and PgD Human Nutrition and Dietetics courses. A minimal attrition rate exists of 4% for students on the University of Ulster Dietetics course.

The supply of graduates entering the workforce in N.Ireland HPSS has been averaged at 33%. This is based on destination figures supplied by the University of Ulster over the 3-year period 1999-2001.

The view from Dietetic Managers in the Project Group and evidence gathered from the key respondents interviews indicated that there would be the equivalent of 6 qualified Dietitians p.a. entering the overall Northern Ireland HPSS sector from outside of Northern Ireland. This has been projected to remain static over the 5-year workforce projections included in the report.

5.1.2 Supply assumptions for those leaving the workforce

In regards to retirees has been assumed by calculating the numbers retiring based on earliest eligible retirement age (ie 60 years). Therefore all Dietitians over 55 years at present have been assumed as leaving the workforce over the next 5-years which equates to 2 staff over the period. Evidence from the DHSSPS Project Support and Analysis Branch would support this assumption.

There have been no Dietetic retirements over the last 4-years due to incapacity therefore no staff will be identified from this category within the 5-year plan as leavers.

Based on anecdotal evidence from the key informant interviews and feedback from the project group, it has been suggested that, at present, 1.75% of the total workforce capacity is lost due to an increase in the uptake of part-time working and work-life balance policies over the 5-year plan. This would equate to 0.5 WTE (1 headcount) each year of the plan. It should be recognised that a high percentage of staff (80%) fall into the under 40 years of age category in a majority female profession and the effect this may have on the number of number of future requests for life-work balance.

Also based on evidence from the key informant interviews and feedback from the project group, it has been estimated that the number of Dietitians leaving the HPSS sector will be 2 each year [for reasons other than retirement/medical].

5.2 DEMAND PROJECTIONS

5.2.1 *Demand Assumptions Utilised*

The demand projections for additional Dietitians required within the HPSS over the next 5 years have been based on the following categories:

- **Category 1**: Capital and service developments with identified staffing requirements for the next five years for which funding has already been agreed.
- **Category 2:** Policy improvements that may be met in the next five years if funding is made available. This includes educational requirements at both under and post-graduate level including continually professional development, time allocated to students on clinical placements, role development and meeting clinical governance.
- **Category 3:** Current demand and unmet clinical need which has been identified via the key informant interviews and the project group. There is no specific policy context or resource identified at present to meet this demand.

5.2.2 Category 1

Key Informants and the Project Group identified the areas of service development over the next five years with the associated workforce requirements that have a funding allocation.

Table 5.2.3: Identified workforce requirement within Category 1

Category 1	Workforce Requirements
	WTE
Regional Brain Injury Unit	2
Sensory Disability (United Hospitals Trust)	1
ICU/HDU Beds (Royal Group of Hospitals Trust)	1.5
Oncology	4.5
Renal Unit (UCHT)	1.5
TOTAL WTE	**10.5**

The overall requirement for Category 1 over the 5-year plan is 10.5 WTE.

5.2.4 Category 2

The Project Group identified policy improvements that may be met in the next five years if funding is made available and projected the workforce requirements using the following rationale:-

- It is suggested the time spent on Continuing Professional Development should equate to 36.5 hours per Dietitian per annum. This translates into an additional 3 WTE Dietitians.

- There is a requirement for protected time allocated to students by Dietitians during their clinical training in respect of adequate mentoring and support. It is suggested this should equate to 3 hours per week per student over the course of their clinical placements. This allocation will require an additional 1 WTE Dietitians.

- To meet the delivery expectations associated with role extension will require an additional 13 WTE Dietitians over the five year plan. This includes 1 WTE consultant post, the role of the prescriber, the extended role in Health Promotion, gastrointerology and parenteral nutrition.

- Local Health and Social Care Groups will demand time of both Dietitians engaged as group members and those who will be involved in

sub-group activities. The Project Group identified the workforce requirement for these groups as rising to 3 WTE Dietitians.

- Work life balance requests were identified at key informant interviews as 1.75% over the five-year period. This indicates a 0.5 WTE Dietitian per annum totalling 2.5WTE within the 5 years.

- 3.5 WTE Dietitians were identified by the Project Group as a likely increase for community palliative care over the five-year plan.

The overall requirement for Category 2 of the 5-year plan is 26 WTE Dietitians.

5.2.5 Category 3

The professional managers involved in the Project Group identified clinical demand and unmet need for which there is no funding allocation:-

Table 5.2.6: Category 3 Clinical Services identified by the Project Group

CLINICAL SERVICES
Cancer/Palliative Care
Cardiology Services - heart failure
- cardiac rehabilitation
Critical Care
Diabetes
Enteral Tube Feeding -- Nutritional Support
Gastroenterology
Health Promotion & Community Development
Learning Disability Services
Mental Health Services including
Eating Disorders
Obesity
Paediatrics
Physical & Sensory Disability
Rehabilitation - Stroke
- Elderly
- Fractures
- Brain Injury
- Spinal Injury
Respiratory
Renal Services
Transplantation

The workforce profile for Category 3 was built up using available waiting lists and statistical information. It must be viewed in the context an initial attempt to explore the requirements and should be further explored to refine the information gathered.

The managers, using the above-identified areas of Category 3, prioritised the need within the context of DHSSPS "Priorities for Action 2002/03" and the additional clinical needs of diabetes.

Table 5.2.7: Prioritised unmet need within Category 3

SERVICE AREAS	WTE
Diabetes	29
Priorities for Action:	
- Heart Disease	12.15
- Renal	2.25
- Cancer	19.8
- Critical Care	8.1
- Health Promotion & Community Development e.g. Sure Start, Targeting Social Needs, Health Action Zones	30.85
TOTAL WTE	**102.15**

In order to estimate the demand numbers of the professionals required to meet the workforce over the next five years Categories 1 and 2 will be utilised within the context of this review. Categories 1 and 2 have either an identified funding allocation or likely to be funded within the 5-year plan.

Table 5.2.8: Workforce requirements identified by the Project Group for Categories 1 and 2 in WTE by year

CATEGORY	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	TOTALS
Category 1	5.5	5	-	-	-	10.5
Category 2: Student Training	1	-	-	-	-	1
CPD/clinical gov	3	-	-	-	-	3
H&SC Groups	1	2	-	-	-	3
Work-life balance	0.5	0.5	0.5	0.5	0.5	2.5
Role Extensions	-	2	3	3	5	13
Community Palliative Care	-	3.5	-	-	-	3.5
TOTALS (WTE) Category 1&2	**11**	**13**	**3.5**	**3.5**	**5.5**	**36.5**

The total workforce requirements over the 5-year plan for Categories 1&2 equate to 36.5 WTE Dietitians.

6. CONCLUSIONS

6.1 Projected Supply of Dietetic Workforce

In using the previous assumptions based on the information gathered during the consultation process the projected supply of Dietitians has been calculated between the years of 2003-2007. Highlighted are relevant Dietetic supply issues table (6.1), which utilises elements of supply figures based on feedback from respondents and literature review. For the purpose of identifying actual numbers required in the workforce the figures have been converted from whole time equivalent to headcount based on the headcount to WTE ratio for the profession, which is 1.16:1.

Table 6.1.1 Projected Supply of Overall Dietetic workforce in NI (2003 - 2007) in headcount. NB [ ] denotes a decrease.

Supply	**2003**	**2004**	**2005**	**2006**	**2007**
Return to Practice	0	0	0	0	0
University of Ulster Graduates entering HPSS	8	8	8	8	8
Entering N.I. from elsewhere	6	6	6	6	6
Total supply available to enter NI workforce	**14**	**14**	**14**	**14**	**14**
Those leaving the Workforce:– Retirees [inc. incapacity]	-	-	1	1	-
Family friendly lost capacity	1	1	1	1	1
Leaving Dietetics	2	2	2	2	2
Leaving Total	**3**	**3**	**4**	**4**	**3**
Current/potential workforce	139	150	161	171	181
Projected potential workforce	150	161	171	181	192
Potential Net Increase (Decrease)	8%	7%	6%	6%	6%

The number of University of Ulster graduates stated in this table entering NIHPSS has been estimated as 31% of those qualifying. The graduate numbers have also been subjected to a decrease of 4% to account for the university course attrition rate.

The projected numbers of Dietitians joining the NI workforce from outside of NI is based on evidence from the Trust questionnaires and comments by the Project Group. While this number is projected as constant over the 5-year plan it is acknowledged that the inflow of qualified staff could be reduced due to

increased opportunities in both GB and the RoI. This figure will therefore require review over the period of the workforce projection.

Areas that could have an effect on the supply equation have been noted:

- Euro/Pound Equilibrium - could have the effect of decreasing the supply of the Dietetic workforce in the Northern Ireland marketplace. Consideration should be given to the effect of the recently announced strategy for the health service in the Republic of Ireland.

- More effective utilisation of the available workforce - as the evidence in this report and historical data shows there is some potential for a more effective utilisation of the available workforce either by a re-allocation of certain duties to non-qualified staff, an increase in the WTE equivalent ratio, an increase in the amount of qualified Dietitians returning to the workforce.

- A consolidation of the service provision, which may free up resources from current posts.

6.2 Projected demand for the Dietetic Workforce

Demand figures are based on identified Dietetic requirements over the 5-year workforce plan (2003-2007) as provided by the key informants, the Project Board, relevant policy and capital and service development business cases. In order to estimate the demand numbers of the professionals the summary figures have been profiled in table 6.2.1.

Table 6.2.1: Projected Demand Figures – Overall Dietetic Workforce by headcount

CATEGORY	2003	2004	2005	2006	2007	H/C Total
CATEGORY ONE – Capital and service requirements that have a funding allocation	7	5	-	-	-	12
CATEGORY TWO- Policy improvements that may be met in the next 5 years if they receiving funding approval	6	10	4	4	6	30
TOTAL CATEGORY 1+2	13	15	4	4	6	42

The total demand for additional Dietitians at categories 1 and 2 over the 5-year period is as follows:

Category One: Capital and service developments with identified staffing requirements for the next five years for which funding has already been agreed.

Total Dietitians = 12 headcount

Category Two: Policy improvements that may be met in the next five years if funding is made available. This includes educational requirements at both under and post-graduate level including continual professional development, time allocated to students on clinical placements, role developments and meeting clinical governance.

Total Dietitians = 30 headcount

A total headcount demand of 42 Dietitians in Categories 1+2 is required over the 5-year plan.

6.3 Supply v Demand for the Dietetic Workforce

In order to consider the numbers of professionals required over the course of the next 5 years the supply and demand figures have been profiled using Categories 1+2.

Table 6.3.1: Profile of projected supply against projected demand over a 5-year period in headcount

Key Factors	2003	2004	2005	2006	2007
Total Supply available to NI Workforce	14	14	14	14	14
Total leavers NIHPSS	3	3	4	4	4
Net Supply	**11**	**11**	**10**	**10**	**10**
Vacancies	8	-	-	-	-
Demand Category 1	7	5	-	-	-
Over [Under] Supply	(4)	2	10	10	10
Demand Categories 1&2	13	15	4	4	6
Over [Under] Supply	(10)	(4)	(6)	(6)	4

When Category 1 is presented demand outweighs supply in years 1+2 but by year 2003-2007 supply outweighs the forecasted demand. It can be seen that when Categories 1+2 are presented demand outweighs supply until year 2007. These figures are based on the assumption that demand and supply remained constant and as forecasted.

6.4 Conclusions on Supply v Demand

It can be seen from the figures presented that there is range in the projected numbers within the Categories 1+2 for each year over the 5-year workforce plan. These categories include agreed and resourced capital and service plans with identified workforce requirements and those that are likely to be resourced within the 5-year period. The figure suggests that if the supply and demand of Dietitians within the NIHPSS remains constant the workforce should find a balance by the Year 2005.

Table 6.4.1: Projected remaining numbers of Dietitians in the workforce after Categories 1 + 2 and vacancies have been accounted for. NB [ ] indicates shortfall

YEAR	2003	2004	2005	2006	2007
Projected numbers after demand Categories 1&2 have been met	(10)	(4)	6	6	4

6.5 Sensitivity Analysis

In an attempt to explore the percentage growth and investment that would be required in the Dietetic Workforce to meet these prioritised clinical services a sensitivity analysis exercise was undertaken. The analysis consists of three scenarios, 15%, 25% and 30% growth levels of the Dietetic workforce. The table below indicates the number of Dietitians.

Table 6.5.1: Scenario 1, 2 and 3 and percentage increase indicated in each of these growth levels

Scenario	Current Headcount	Increase Headcount	Total H/C Increase
1. Increase 15%	147	31	178
2. Increase 25%	147	37	184
3. Increase 30%	147	45	192

These percentage growths were applied to Category 3 (current demand and unmet need with no identified funding within the Dietetic Clinical Service).

Scenario 1

An overall increase of 15% to the existing Dietetic Workforce would equate to a total of 178 staff, an increase of 31 Dietitians. At this growth level it may be possible for the service to meet the following unmet need/current demand areas identified within Category 3:

- The Dietetic Managers suggest a 15% increase would provide the clinical requirements to meet the identified dietetic needs of cancer and renal patients.

Scenario 2

An overall increase of 25% to the existing Dietetic Workforce would equate to an increase of 37 Dietitians giving an overall total of 184.

- At this level of growth the Dietetic Managers suggest clinical service could be provided that would allow the Dietetic service to provisionally meet the clinical needs of diabetes and critical care.

Scenario 3

An overall increase of 30% to the existing Dietetic Workforce would equate to an increase of 45 Dietitians giving an overall total of 192.

- At this level of growth the Dietetic Managers suggest a Dietetic clinical service could be provided to meet most of the requirements identified in Health Promotion and Coronary Disease.

In conclusions to meet all the prioritised needs the Project Group identified within Category 3 (unmet need and current clinical demands) a growth of 70% would be required. This growth would be subject to securing funding within a competitive bidding environment.

The figures identified by the Project Group should be taken as a first attempt and a baseline, which will require further in-depth discussion and challenge to refine and produce the most accurate statistics.

7. RECOMMENDATIONS

The timescale for the implementation of the key recommendations outlined below is twelve months to coincide with the follow up review:

Workforce Planning

- Now that the workforce planning process is established it is recommended that the Project Board should be retained to steer and implement the recommendations emanating from the Dietetic Workforce Review.

- Now that the workforce planning process is established it is recommended that there is a regular review of supply and demand throughout the 5-year period. The information gathered in the base-line review should be built upon and expanded on it taking into account such factors as the impact on the workforce of the role extension, sub-specialisation, capital plans and service development business cases.

- The Project Board should ensure that there is a consistent and targeted approach to gathering relevant supply and demand data and manpower recording processes.

- The Department should review the activity data collected from the Allied Health Professions at Trust level. Professional managers should review management data collection from the current information systems and ensure the systems are maximised to their full potential the aim of these reviews will be to provide a more comprehensive management information collection, which will aid the workforce planning process.

Recruitment & Retention

- All employers should put in place policies to incorporate planned induction, consolidation and mentorship programmes for all new staff and review the effectiveness of these in a quantitative and qualitative manner.

- Employers and the profession should put in place a consistent approach to the implementation of work-life balance policies and procedures and this should be factored into workforce planning.

Utilisation of the available Workforce

- Trusts should carry out further work into the possibility of reallocating non-professional responsibilities from Dietitians to other health care workers including dietetic assistants and administration and clerical staff.

- A co-ordinated approach should take place with regard to workforce planning of Dietetics, particularly in relation to role extension and development issues.

Education & Development

- Further discussions should take place between the DHSSPS, Trusts and the University to establish a more effective way of providing and increasing the numbers of clinical placements for students throughout the degree programme. It is considered that these increases are vital in enabling Trusts to retain graduates within the NIHPSS. Contributing to the loss of these graduates to outside the NI workforce is the placement of students in the final year to mainland UK. The aim should be for Dietetic student clinical placements to be self sufficient within the NI context. All Trusts with Dietetic services should provide some element of the student clinical placements over the training period. Results of the Clinical Placement Survey (DHSSPS May 2002) should be used in conjunction with this exercise to progress the position of Trusts to better accommodate the clinical placements required.

- There should be an increased focus placed on Continuing Professional Development (including leadership development) and all employers should ensure that the recommended hours provision is accounted for through the workforce planning process.

- Dietetics should become actively involved in the Centre for Continuing Professional Development for the Allied Health Professions (established by the DHSSPS, 2002) The Northern Ireland Dietetic Profession should identify its training requirements and contribute to planning for these needs.

- Employers should provide training to all staff that will be required to provide mentorship or coaching support as part of their role.

- The Department should take forward the development of the AHP consultant role to acknowledge the high levels of clinical expertise within the profession.

Further Review of the Workforce

- The Project Group should be convened initially on an annual basis to review and update the workforce plan.

- Trusts should review the skill-mix of their Dietetic workforce to ensure it has the most appropriate combination of staffing grades to meet the needs of the clinical service this review should also ensure that entry-level posts are maintained so there is a continued flow into the workforce of new graduates.

- The Project Group should be mobilised to take forward where appropriate any recommendations emanating from the workforce review.

- Trusts should review with its Dietetic service the demands of Category 3, as identified in this report, and ensure that any agreed increase in service is included in any future service development plans.

CONCLUSION

This Dietetic workforce review can only be viewed as the starting point, or a baseline for further work to be carried forward. This includes the development of an action plan to take forward the recommendations outlined above. The models presented in the report will need updated and refined on a regular basis to continue to inform decision-making and priorities concerning the investment in the NIHPSS Dietetic workforce over the 5-year plan.

Appendix 1 - Project Board Members

Workforce Planning Group – Members

NAME	TRUST/HOSPITAL
DAVID BINGHAM, DIRECTOR OF HUMAN RESOURCES, DHSSPS	Department of Health Social Services & Public Safety
DOROTHY JEFFREY, PROJECT DIRECTOR, DHSSPS	Department of Health Social Services & Public Safety
JOYCE CAIRNS, DEPUTY DIRECTOR OF HUMAN RESOURCES, DHSSPS,	Department of Health Social Services & Public Safety
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JILL EATON-EVANS, SENIOR LECTURER IN HUMAN NUTRITION/DIETETICS, UNIVERSITY OF ULSTER, COELRAINE	University of Ulster Jordanstown
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MAY THOMPSON, DIETETIC MANAGER, CRAIGAVON AREA HOSPITAL, 68 LURGAN ROAD, PORTADOWN, BT63 5QQ	Craigavon Area Hospital HSS Trust
PAULINE MULHOLLAND, DIETETIC MANAGER, ULSTER HOSPITAL, DUNDONALD, BT16 1RH	Ulster Community Hospitals Trust
SHARON PATTON, DIETETIC MANAGER, ALTNAGELVIN HOSPITAL, LONDONDERRY, BT47 1SB	Altnagelvin Hospital HSS Trust
PAULINE DOUGLAS, BELFAST CITY HOSPITAL, LISBURN ROAD, BT9 7AB	Belfast City Hospital Trust
STAFF SIDE REP – PAULA CAHALAN	Royal Group of Hospitals HSS Trust
JENA MUSTON, BEECHES MANAGEMENT CENTRE GROUP	The Beeches Management Centre
MARY WARD, COURSE DIRECTOR, BSC HONS HUMAN NUT & DIET, UNIVERSITY OF ULSTER, BT52 1SA	University of Ulster Jordanstown

Appendix 2 – Key Informant Interviews

Representative	Organisation
Mrs Anne Gormley	Sperrin Lakeland Trust
Mrs Ashleigh Nelson	Armagh & Dungannon HSS Trust
Mrs Pauline Mulholland	Ulster Communities Hospital Trust
Miss Liz Ferguson	United Hospitals Trust
Mrs Ruth Wood-Martin	Greenpark HSS Trust
Mrs Lucy Hull	Mater Hospital HSS Trust
Mrs Eleanor Duff	Causeway HSS Trust
Mrs Mandy Gilmore	Newry & Mourne HSS Trust
Mrs Alison Armstrong	North & West Belfast Trust
Mrs Pauline Douglas	Belfast City Hospital Trust
Mrs Jennifer Holmes	Royal Group of Hospitals Trust
Mrs Sharon Patton	Altnagelvin Hospitals Trust
Mrs May Thompson	Craigavon Area Hospital Group Trusts
Miss Paula Cahalan	Regional Staff-side Representative

Appendix 3 – Focus Groups

Group	Location
1&2	University of Coleraine
3	NHSSB
4&5	EHSSB
6	WHSSB
7	SHSSB

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