



Workforce Planning Review

Department of Health, Social Services and Public Safety
An Roinn Sláinte, Serbhísí Sóisialta agus Sábháilteachta Poiblí

Introduction

The Radiography profession includes both Diagnostic and Therapeutic Radiographers.

The Diagnostic Radiographer works with the patient taking medical images. These images may be static or dynamic using techniques that include the use of x-rays, ultrasound nuclear medicine and magnetic fields. The Diagnostic Radiographer also gives intravenous injections, reports on images and performs diagnostic examinations.

The Therapeutic Radiographer is a member of the radiotherapy healthcare team providing treatment for patients with cancer. This involves administering radiotherapy treatment and using a variety of equipment and treatment machines. This area of work is highly technical and constantly evolving. The Therapeutic Radiographer works in the field of radiation physics, ensuring treatment is accurately localized to the diseased area.

Both Diagnostic and Therapeutic Radiographers are involved in multi-disciplinary research projects.

This document is a summary of the Comprehensive Review of the Radiography Workforce April 2002. The review was co-ordinated by a Project Steering Group, comprising of representatives of the DHSSPS, providers, education, staff side and commissioners. The report includes a profile of the current workforce, a projection of the supply and demand within the HPSS workforce over the 5-year period 2002-2006 and recommendations to address issues arising from the review. This information is vital to assist the Department primarily 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.

Methodology

Various stages were utilised to undertake this review:

- An audit to identify the staffing profile and characteristics of the current workforce.
- Background research conducted involving a literature review, policy document review, and a review of Trust and Commissioner strategies to identify proposed capital and service developments or changes.
- Consultation with stakeholders across all areas of the workforce, through 27 key informant interviews and 8 focus groups.
- Analysis of data gathered to develop a workforce model to aid the prediction of future workforce needs by the identification of key supply and demand indicators over the period of 2002-2006.

Key Findings of The Review

Key findings identified include the staffing profile, supply issues, demand issues and predictions.

Staffing Profile

- The radiography workforce represented a total headcount of 517 across the HPSS with diagnostic making up 471 & therapeutic the remaining 46.
- The ratio of headcount to WTE equivalent was 1.14:1.
- The workforce was predominantly (93%) female.
- The age profile of the radiography workforce indicated that 56% are less than 40 years of age. The eligible age for retirement is 60 years and 8% of the profession are presently over 55 years.

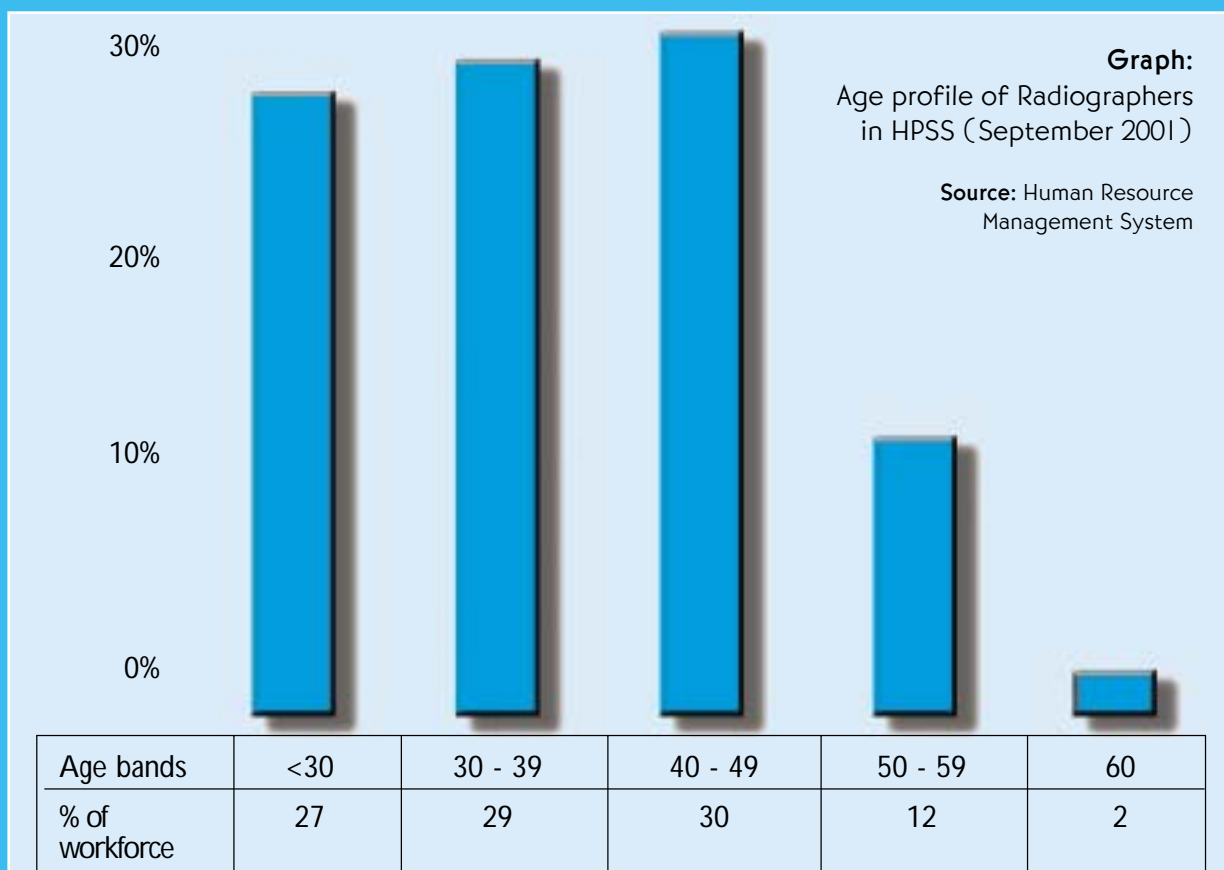
Supply & Demand Issues

Supply Issues

The following issues were identified as affecting the workforce supply over the 5-year workforce plan:

Recruitment and Retention

- There were no difficulties recruiting to training places at the University of Ulster with the application to places ratio 2.5:1
- The attrition rate of UU was 8% for radiography students over the 4-year



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course. On average 43% do not enter the HPSS upon graduation. This means that just over half of all students admitted to the graduate training programme end up working in the HPSS. Trusts depend on graduates to fill vacant radiography entry grade posts.

- There were increasing problems with recruitment and retention of the radiography workforce across the HPSS in particular recruiting to entry grade posts, filling temporary posts and attracting Bank Staff.
- Requests were increasing for work-life balance practices often involving reduced hours and it is estimated that this accounts for a loss of 1.75% of the radiography workforce per year and the trend is likely to increase over the next 5-years.
- The increasing workload during the out of hours service contributes to the difficulties in the recruitment and retention of staff as well as the inequalities with the out of hours service payments between Trusts.

Career Progression

- Lack of career opportunities and progression is a significant factor in the workforce. Some radiographers remain at radiographer entry grade for a number of years with no opportunity to progress to a higher grade. There is a limited career path at senior level with often the only available promotional route to a higher grade would be into management, which has very limited opportunities.

Lifelong Learning

- Difficulties were noted in ensuring Continual Professional Development (CPD) for post-graduate staff both from a time and funding resource perspective.
- Difficulty exists in setting aside sufficient time to properly mentor and train students on clinical placements. This is due mainly to pressure on the operational service delivery.

Under representation

- There is a lack of leadership representation for the profession at every level of the service, which correspondingly means a lack of inclusion in the decision and communication process.



Demand Issues

The following issues were identified as affecting demand over the 5-year plan:

Service Developments

- Extension of the NHS Breast Screening Programme for females aged 50-65 years to include up to 70 years.
- A future requirement may be to extend the clinical service hours to reflect demand from the primary and secondary sectors.
- The introduction and implementation of the Ionising Radiation Medical Exposure Regulations (IRMER) has increased workload significantly.
- Sub-specialisation and role extension has and will continue to increase demand for specialist radiographers within the profession, in line with the development of the medical profession and advances in diagnostic imaging and therapy treatment technology.
- Specialist skills in both diagnostic and therapeutic services have extended the role and the clinical responsibility of the radiographer.

Capital Developments

- The installations at Antrim, Altnagelvin, Belfast City, Craigavon and the Ulster Hospitals of 5 new Magnetic Resource Imaging (MRI) Units.
- An additional 4 Computerised Tomography (CT) scanners at Antrim, Belfast City, Royal Belfast Hospital for Sick Children and South Tyrone Hospitals.
- The initiation of a Nuclear Medicine Service at the RBHSC and the Ulster Hospital.
- The new Cancer Centre with an additional 7 linear accelerations, 2 Computerised Tomography (CT) Scanners, Ultrasound equipment and an Interventional Service.
- The installations of Picture Archiving and Communications Systems (PACS) across HPSS.
- The initiation of a Bone Densitometry Service at South Tyrone Hospital.

Skill Mix

- An increasing amount of radiographer's time is spent on administrative and clerical tasks. Some tasks undertaken by radiographers do not require professional skills and there are opportunities to further allocate tasks to assistant grades.

Operational Difficulties

- Pressures experienced within the Radiology Service often results in longer clinical waiting lists.
- Patient demands are increasing due to awareness of the available technology, medical and diagnostic knowledge, the Patients Charter, the rights of access to services, availability of complaint systems. This in turn increases pressure on the operational service delivery.
- An ageing growing population, increased dependency of patients, increased referral activity patterns and the sophistication of treatments available are the causes of pressure on the clinical services.

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Projected Supply & Demand Conclusions

Conclusions were drawn and assumptions made concerning the future profile of the workforce utilising supply and demand projections. These were developed into a workforce model to predict the requirements of the radiography workforce over the 5-year period 2002 - 2006.

The requirements for radiographers have been presented at three demand levels and categorised as Diagnostic or Therapeutic:

Demand Level One:

Agreed and resourced capital and service plans with identified workforce requirement within the 5-year plan. This refers to capital and service developments that have been agreed within the current HPSS policy framework with required resources identified or approved over the course of the 5-year workforce plan.

Demand Level Two:

Capital and service requirements, that are likely to be resourced within the 5-year plan. This refers to capital and service developments that have been identified via the Key Informant Interviews and the Project Steering Group that are likely to be supported over the next 5-years, although resources have yet to be allocated.

Demand Level Three:

Current and future demand with no identified funding This refers to additional demands within the current and future services, identified via the Key Informant Interviews and the Project Steering Group that do not have a funding allocation.

Summary Table of the Workforce Requirements in whole time equivalent (WTE) over the 5-year plan for the Demand Levels 1, 2 & 3

| Workforce requirements in WTE | 2002 | 2003 | 2004 | 2005 | 2006 | Total |
|---|------|------|------|------|------|-------|
| <i>Demand Level 1 (agreed and resourced capital & service plans):</i> | | | | | | |
| <i>Diagnostic Radiographers</i> | 32.5 | 15 | 0 | 9 | 0 | 56.5 |
| <i>Therapeutic Radiographers</i> | 12.5 | 10.5 | 10.5 | 10.5 | 0 | 44 |
| <i>Demand Level 2 (capital & service requirements, likely to be resourced)</i> | | | | | | |
| <i>Diagnostic Radiographers</i> | 16 | 16.5 | 6 | 1 | 4 | 43.5 |
| <i>Therapeutic Radiographers</i> | – | – | – | – | – | – |
| <i>Demand Level 3 (current and future demand with no funding)</i> | | | | | | |
| <i>Diagnostic Radiographers</i> | 22.5 | 16 | 15 | 15 | 5 | 73.5 |
| <i>Therapeutic Radiographers</i> | 3.5 | 1 | 1 | 1 | 1 | 7.5 |

For the initial purposes of the workforce plan a combination of Demand Levels 1+2 was adopted which included agreed capital and service plans with identified workforce requirements that have agreed funding or are likely to be resourced within the 5-year plan.

The following table illustrates the shortfall in the workforce after accounting for the requirements of Demand Levels 1+2:

Projected numbers in whole time equivalent after meeting the needs of Demand Levels 1+2 over the 5-year plan. NB [] indicates shortfall

| Projected Numbers | 2002 | 2003 | 2004 | 2005 | 2006 | Total |
|---------------------------|--------|--------|-------|-------|------|-------|
| Diagnostic Radiographers | [45.5] | [28.5] | [1] | [6] | [1] | [82] |
| Therapeutic Radiographers | [7.5] | [1.5] | [2.5] | [0.5] | 8 | [4] |

Sensitivity Analysis Summary

A number of scenarios were presented to analyse their impact on the projected shortfall within the workforce.

- Scenario A
Attracting a greater percentage of diagnostic radiography graduates into the HPSS workforce [from 57%, at present, to 70-75%]. This identified that an additional 16-22 qualified radiographers would be employed in the workforce over the 5-year plan. (NB 100% of therapeutic radiographers entered the HPSS workforce after graduation from the University of Ulster).
- Scenario B
If the HPSS were able to reduce by 30% the number of the diagnostic radiographers leaving the workforce each year, an additional 5 radiographers would be available in the 5-year period. The number of therapeutic radiographers leaving the workforce is less significant at a rate of 1 per annum.
- Scenario C
If the HPSS were to increase the university intake by 35% immediately, there would over the 5-year plan be an additional 6 diagnostic and 3 therapeutic radiographers graduating. This affect would not manifest until year 4 of the plan due to the 4 years required for training.

It is recognised that there is no single simple solution to increasing the numbers of radiographers in the HPSS workforce. Several recruitment and retention strategies require to be established in order to make a significant improvement on the overall numbers of radiographers in the workforce.

Recommendations

Workforce Planning

- The Project Steering Group should be retained to review supply and demand on an ongoing basis. It should ensure that there is a consistent and targeted approach to gathering relevant supply and demand data. A more detailed exploration of the identified pressures on the workforce should be included in their remit e.g. the actual requirements to address the Working Time Regulations regionally.
- Further discussions should take place between the DHSSPS and the University to establish a more effective way of providing clinical placements for students throughout the degree programme. All Trusts with radiography services should also provide student clinical placements for each year of training.

Recruitment & Retention

- Employers should address recruitment and retention practices in an innovative manner, sharing successful ideas and initiatives to achieve synergistic benefits. With this purpose they should assess and evaluate the Society of Radiographers document "The Future of Radiography Services in NI, 2001" taking into account the Agenda for Change initiative.
- Employers should build relationships with students during their periods of clinical attachments and should have proactive recruitment programmes designed to attract 4th year students.

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- Trusts should project their workforce requirements one year in advance. The recruitment process should commence 6 months prior to the graduation date of radiography students. There should be a coordinated approach to the recruitment of these graduates by Trusts on a regional basis.
- 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.
- Trusts should explore the feasibility of offering more flexible working practices to radiographers in line with anticipated increased hours provision for example, an extended working day or weekend-only working.
- 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 taken into account when assessing supply and demand in the context of workforce planning.

Utilisation of the available Workforce

- A Working Party should be established to address a skill mix review and more closely the issue of the required roles and responsibilities of radiographers in today's healthcare environment. This should involve as a matter of urgency looking at the benefits and associated costs of developing Radiography Assistants to NVQ Level 3.
- A co-ordinated approach should be taken to workforce planning of both radiology and radiography, particularly in relation to role extension and development issues.

Education and Development

- 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.
- Consideration should be given to

providing a centre for CPD and employers should ensure training is available for 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 reconvened initially on an annual basis to review the supply and demand assumptions and to update the workforce plan for the radiography workforce.
- Further review should take place on the impact of life work balance requests on the workforce.

Conclusion

The Radiography Workforce Review should be considered as a baseline for further work to be progressed. An action plan will be developed to take forward the recommendations outlined. The models presented in the report will be reviewed on a regular basis to inform decision-making and priorities concerning the investment in the HPSS Radiography Workforce over the 5-year plan.



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Project Steering Group

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