



Workforce Planning Review

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

Introduction

The dental workforce includes dentists and the professions complementary to dentistry. **Dentists** provide a wide range of services including care and treatment for oral diseases, preventative treatments, emergency services and provision of dental appliances. The Dental workforce includes:

- **Dental Hygienists** work to the prescription of a dentist within a variety of settings. They undertake a variety of preventative clinical procedures, including scaling and periodontal (gum) treatments and fissure sealants. They use local infiltration anaesthesia and provide oral health education and may take oral radiographs and provide oral health education. By law, they are required to register with the General Dental Council upon qualification.
- **Dental Therapists** work to the prescription of a Dentist within a variety of settings. They undertake simple fillings and extract deciduous teeth under local infiltration anaesthesia. They also undertake a range of preventive procedures and provide oral health education. They are required by law to register with the General Dental Council upon qualification
- **Dental Nurses** are employed in all settings of dentistry. Their main role is clinical dental support, as well as the preparation of the surgery and the patient; administration; 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 x-ray imaging.
- **Dental Technicians** work to the prescription of dentists and are responsible for the design and manufacture of custom made appliances and 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).
- **Dental Services Managers** or Clinical Directors of Community Dental Services are the professional and managerial head of the community dental service within a Trust, responsible for strategic planning, needs assessment and operational issues at Senior Management level. They are involved in multiprofessional working and may have a clinical input depending on the needs of the service.
- **Oral Health Promotion Officers** are responsible for the strategic development, implementation and review of oral health strategies in response to local and regional needs and policies. They are involved in needs assessment, research and evaluation and have links with general health promotion liaising on a multiprofessional basis.
- **Oral Health Educators** are involved in the operational side of oral health promotion within the community. They plan, implement and evaluate oral health promotion programmes in response to local strategies.
- **Dental Health Co-ordinators** are responsible for a mix of strategic and operation issues within oral health promotion.

This document is a summary of the Comprehensive Review of the Dental Workforce February 2002. The review was co-ordinated by a Project Group, which comprised of representatives of the DHSSPS, providers, education, commissioners and staff side. The report includes a profile of the current workforce, a projection of the supply and demand within the HPSS workforce over the 10-year period 2002-2012 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 involving consultation, through a workshop and a postal survey of general dental practitioners, vocational trainee dentists, dental students and hygienists.
- 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 - 2012.

Key Findings of The Review

Although Dental Hygienists, Nurses, Therapists and technicians were considered within the main review the Steering Group recommended that a separate Workforce Review take place to fully establish their requirements.

- There were 854 Dentists working regionally of which 707 were general dental practitioners, 68 hospital based dentists and 79 community based dentists.

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: Trusts, Health Boards, CSA, GDP survey and DHSSPS

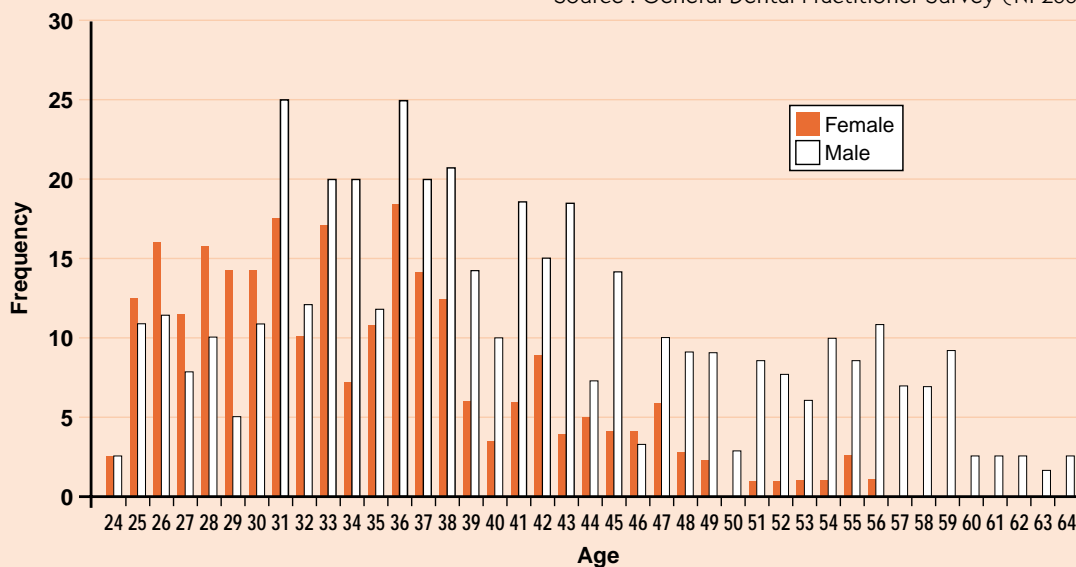
NB: The number of nurses is a grossed up estimate from the GDP survey. The number of hygienists attributed to the three streams of dentistry is estimated due to variants in working practice. The number of hygienists are not included in the totals within the above table.

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- Other staff working within dental teams were dental hygienists, dental nurses, dental therapists and dental technicians of which 85% of the hospital based support staff were female and 66 such staff work in hospital based teams with 13% working in community teams.
- Community Dental Teams (CDT) (dentists and support staff) were almost entirely female (94.2%).
- 40% of general dental associates were female.
- The majority of staff in Community Dental Teams were dental officers and dental nurses.
- The vacancies in Community Dental Teams were mainly for dental officers, dental nurses and hygienists.
- The largest proportions of Dentists in training were female.
- The majority of general dental practitioners over 30 were male.
- The majority of general dental practitioners under 30 were female.

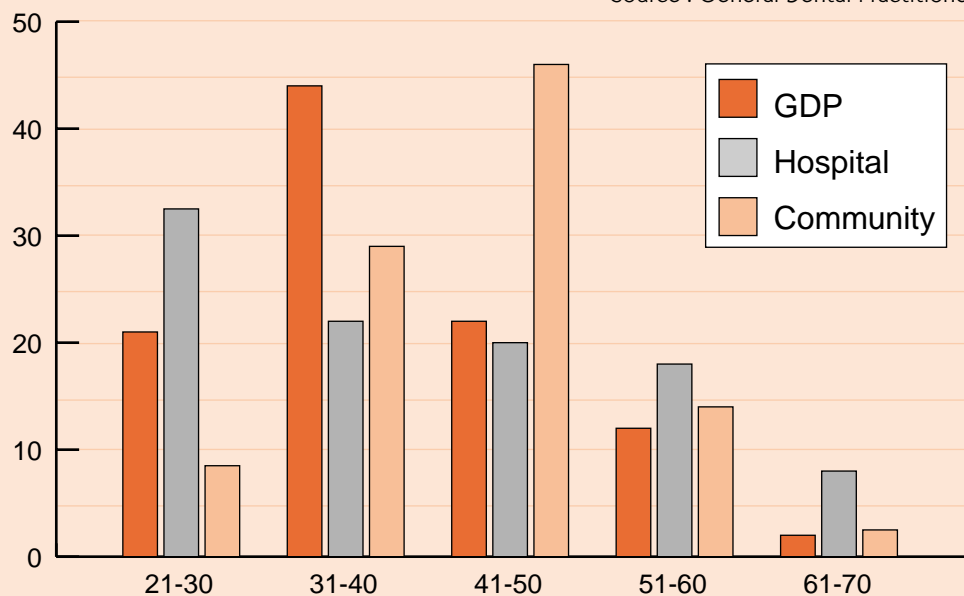
Graph: Age Profile of Principal Dentists by Gender
Source : General Dental Practitioner Survey (NI 2002)



- It can be seen by the graph that the age profile alters dramatically between genders. The majority of principle dentists over the age of 40 years were male and almost predominately male over the age of 50 years.
- The female principle dentist population begins to increase in numbers below 40 years and females dominated the younger population of principle dentist posts.
- The workforce has seen increases in female dentists suggesting that if this trend continues 50% of dentists working in general dental surgeries (GDS) will be female by 2011/2012.

Graph: Age Profile of Dentist Workforce 2002

Source : General Dental Practitioner Survey



- The age of hospital and community dentists was older than general practitioners and this will probably

increase the effect of retirement and hence further pressure on the supply of dentists.

Supply and Demand Issues

Supply Issues

The following points were identified as having a potential influence on supply:

- Increases in private treatment
- Earlier retirement of dentists
- Decreases in practice ownership
- An increase in the number of female dentists
- An increase in part-time working and requests for life/work balance
- Increased role for the professions complimentary to dentists
- Increase in corporate bodies if General Dental Council rules are altered
- Estimated 1/3 returnees
- Shortage of dental nurses
- Increased demand for health promoters
- Registration of the professions complimentary with General Dental Council
- Increased requirement for Continual Professional Development for dentists will impact on workforce in time
- Significant recruitment problems were reported in relation to general dental practitioner associates
- A lack of specialists to take up posts in community dentistry in clinical areas such as special needs and paediatrics
- Difficulties within the hospital dental service is in filling consultant posts with application numbers reported as being low
- 22% of general dental practitioners (GDP) were planning to take a career break in the next 5-years.
- 80% of GDP were planning early retirement
- The vast majority of general practice owners were male
- The majority of vocational trainees, dental hygienists and dental nurses were female

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- 60% of practice owners reported recruitment problems
- 18% of general dental practitioners were no longer accepting new health service patients;
- 26% of GDPs reported their workload to be excessive;
- 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;
- 50% of dental nurses in general dental practice were not qualified and
- A significant number of students training in Great Britain may return to Northern Ireland.

Demand Issues

The steering group identified some demand factors:

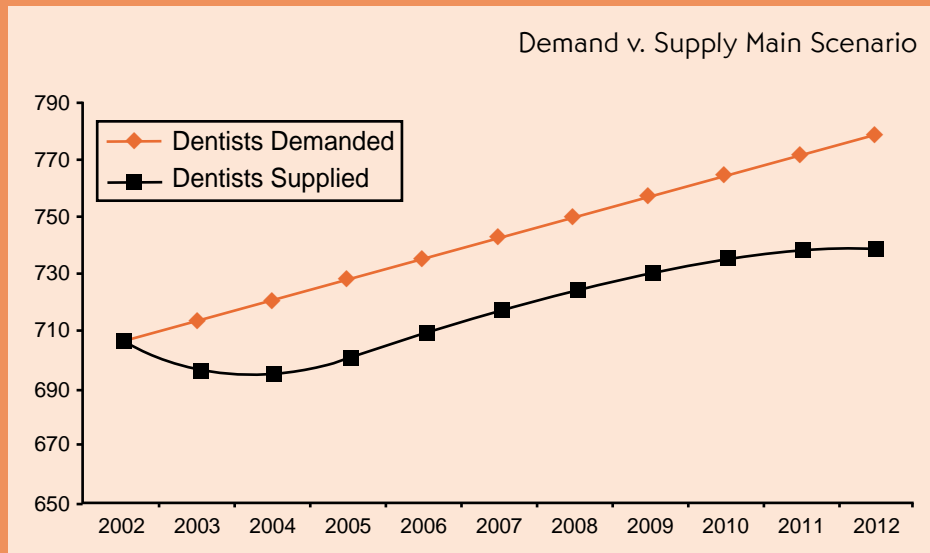
- Oral Health Strategy mid term evaluation targets
- Increased tooth wear
- Reduced incidences of decay (except root caries)
- An aging growing population
- Public awareness of new dental health treatments
- Increases in domiciliary care which is more intensive
- Increases in speciality services for children, learning disability and older people
- The impact on junior doctor hours
- Hygienists moving towards private sector working

Projected Supply and Demand Conclusions

In order to effectively assess the workforce requirements over the next decade in the dental workforce a demand and supply model was constructed for general dental practitioners in NI to quantify the potential mismatches in demand and supply that may emerge over the medium term. There were a number of potential consequences of demand and supply mis-matches, the

most common being unmet demand, where people do not receive treatment, and waiting lists arise. A prediction of the future workforce demand and supply was sought by adopting a scenario approach to modelling the general practitioner workforce. The approach involved modelling three scenarios, a lower, upper and main scenario. The main scenario was considered to be the most plausible path of events. It reflected an increase in private work (to approximately 50% of work) and an increase in female dentists and flexible working patterns. Also the main scenario indicated the decline in the population treated (as a result of the shift to private care) would be offset by improving health targets and hence increasing numbers of NHS patients. In addition, retirement rates would also increase slightly.

The main scenario revealed a shortage of 41 dentists in 2012. Notably the shortage predicted would be acute in the next number of years, reflecting retirement patterns in males, which in reality may not transpire, as some dentists may not retire early, as supply shortages will provide considerable demand for work. Supply numbers also levels off after 2011 as more females reach retirement age.



Recommendations

It is recognised that there is no single simple solution to maintaining a supply of Dental Practitioners for the HPSS. Several recruitment and retention strategies need to be established in order to ensure adequate provision of the workforce.

Key Recommendations

- 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.
- 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.
- 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.
- 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.
- 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*;
 - *3 supply fundamentals* - training levels (the number of dentists training locally), migration (the number of dentists trained locally who leave to take up posts elsewhere) and retirement rates.
- *2 demand fundamentals* - list sizes (average number of people registered with a dentist) and the percentage registered (% of the population registered with a dentist).
- 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).
- The terms and conditions of service and career structure for all staff working in dentistry should be reviewed with the appropriate professional groups to address the recruitment and retention difficulties identified in this review.
- A central database should be established to hold information.

Dental Students/VDPs

- The Department should 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).
- There should be consideration given to increasing 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.

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Therapists

- A review of 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

- The impact of the new training requirements should be reviewed 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.
- A review should be carried out to establish where and how dental nurse training is delivered in the future and subsequently ensure retention until completion of the training/qualification.

Hygienists

- A review should be considered of the current hygienists training output (5 per year) the model predicts that an additional 3 hygienists net should be trained by 2012.

Technicians

- A review should be considered of the current technicians training output (5 per year) as the model predicts that an additional 3 technicians net should be trained by 2012.

Conclusion

This Dental Workforce Review can only be considered as the baseline for further work. 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 Dental Workforce over the next 5 years.



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REVIEW

AUGUST 2003

DENTAL REVIEW

Project Steering Group

David Bingham	DHSS&PS
Joyce Cairns	DHSS&PS
Pauline Carson	Ulster Community & Hospitals HSS Trust
Heather Clarke	Southern Health & Social Services Board
Philip Henderson	General Dental Practice Committee
Leigh Hunter	Queens University Belfast
Richard Kendrick	Ulster Community & Hospitals HSS Trust
John Kennedy	Queens University Belfast
Julia Kirk	Armagh & Dungannon HSS Trust
Richard Loan	General Dental Practitioner
Donncha O'Carolan	DHSS&PS
Doreen Wilson	DHSS&PS

Contact Address

Department of Health Social Services & Public Safety
Human Resources Directorate
Workforce Development Unit
Room D1.4
Castle Buildings
Stormont Estate
Upper Newtownards Road
BELFAST BT4 3SQ