



Tasmanian Department of Health and Human Services

Agency Health Professional Reference Group

Allied Health Professional Workforce Planning Group

Allied Health Professional Workforce Planning Project

Orthotics and Prosthetics Information

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3 Preface

This Orthotics and Prosthetics Information should be read in conjunction with the main Allied Health Professional Workforce Planning Project Discussion Paper.

4 Overview

Orthotists and prosthetists are responsible for the provision of orthoses (supportive devices) to people with muscular and skeletal disabilities and prostheses (artificial limbs) to people with amputations.

Undergraduate courses in orthotics and prosthetics are offered at La Trobe University in Victoria and The University of New South Wales (commenced in 2002).

As at March 2002, there were 12 orthotists and prosthetists employed in 12 full time positions in Community Rehabilitation and Allied Health Services in the Community Population and Rural Health Division.

The DHHS orthotics and prosthetics service provides treatments to amputees and orthotic rehabilitation in all regions and across all DHHS Divisions. The service also provides specialised seating to clients in the south. The service provides an artificial limb service to both public and privately-insured patients. This was the only DHHS allied health professional service that provided services in the acute and community sectors, through one management structure

The median age of orthotists and prosthetists in DHHS was 37 years, which was younger than the median age of 42 years of the whole DHHS allied health professional workforce. At 34 per cent, the proportion of females in the DHHS orthotics/prosthetics workforce was the lowest rate for all DHHS allied health professions.

In the years 2000 and 2001, an average of 2.5 orthotists/prosthetists left the DHHS per year and an average of 3 DHHS orthotists/prosthetists positions were advertised per year. Orthotics/prosthetics had an average turnover rate of 21 per cent for those two years and this was considered high when compared to the turnover rates of other AHPs. In 2001, there were no vacancies for at least six months.

In the 1996 census there were 3.2 orthotists (employed in the public and private sectors) per 100,000 of the Tasmanian population. This was the highest ratio of orthotists to population in Australia; the average Australian ratio was 1.9 orthotists to 100,000 population.

Information from the Commonwealth Department of Employment and Workplace Relations states that the work prospects for orthotists/prosthetists are very good and the employment growth is expected to be strong.

The workforce planning issue identified by representatives of the Tasmanian branch of the Australian Orthotic and Prosthetic Association was the inability to recruit locums to cover extended periods of leave and this resulted in reduced services and increased waiting lists.

5 Description of the orthotics and prosthetics profession

Orthotists and prosthetists are responsible for the provision of orthoses (supportive devices) to people with muscular and skeletal disabilities and prostheses (artificial limbs) to people with amputations. They aim to maximise the function and comfort of the client by providing the most appropriate orthotic or prosthetic treatment.

Orthotists and prosthetists work in special units located in major teaching hospitals and rehabilitation centres. Orthotics and prosthetics is a small, specialised area and opportunities for employment are gradually increasing.

Registration is not mandatory in Tasmania for orthotists and prosthetists.

5.1 Descriptions of related occupations

5.1.1 Orthotics and prosthetics technicians

Orthotic and prosthetic technicians make, repair and maintain orthoses (braces, callipers and related appliances) and prostheses (artificial limbs). Orthotic and prosthetic technicians work in a laboratory under the guidance of, and instruction from, the professional prosthetists and orthotists. They are not normally engaged in direct client treatment.

(Commonwealth Department of Education, Science and Training 2002)

6 Workforce supply

6.1 Profile of the current orthotics and prosthetics workforce

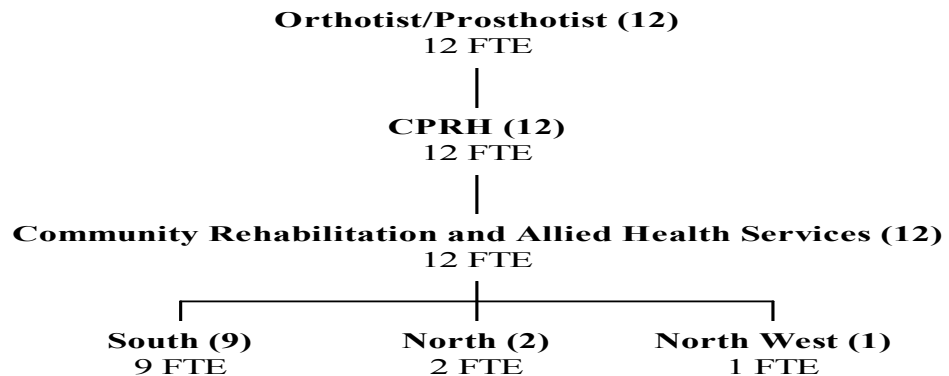
6.1.1 Demographics of the orthotics and prosthetics workforce

6.1.1.1 DHHS information system data

Data on the DHHS orthotics/prosthetics workforce derived from both the DHHS Human Resource Services Information System (as at 21 March 2002) and from information supplied by the state manager of the Orthotics and Prosthetics Service Tasmania has been displayed graphically. The information displayed in these graphs represents all orthotics/prosthetics positions within DHHS regardless of whether they were filled or vacant at the time of this analysis.

As displayed in figure 1, 12 orthotists and prosthetists were employed in full time DHHS positions. All orthotists/prosthetists were employed in the Community Rehabilitation and Allied Health Services of Primary Health in the Community Population and Rural Health Division in facilities in Hobart, Launceston and Burnie from which they provided a cross-divisional state-wide service.

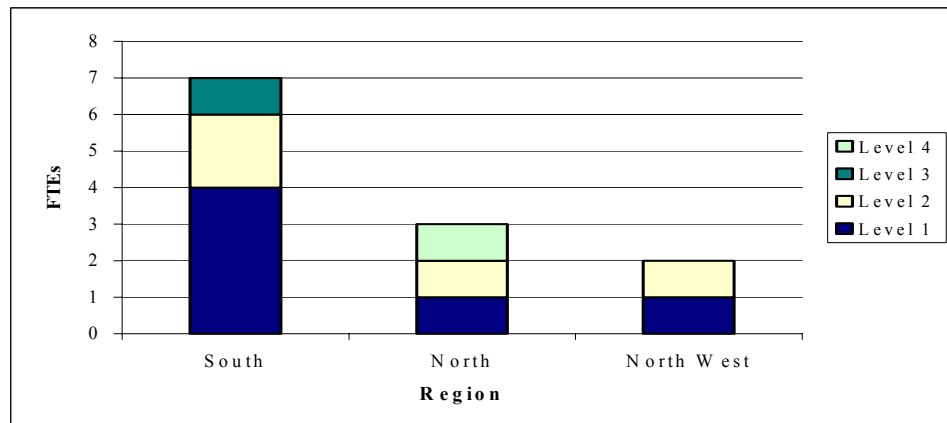
Figure 1: Division and service structure of orthotists/prosthetists employed within DHHS (headcount in brackets)



Source: DHHS Human Resource Services Information System 21 March 2002

Figure 2 displays the award levels and the FTEs of DHHS orthotists and prosthetists in each region.

Figure 2: Orthotics/prosthetics FTEs per award classification and region



Source: Human Resource Services Information System 21 March 2002

Table 1 shows the numbers of DHHS orthotists/prosthetists at the various award levels.

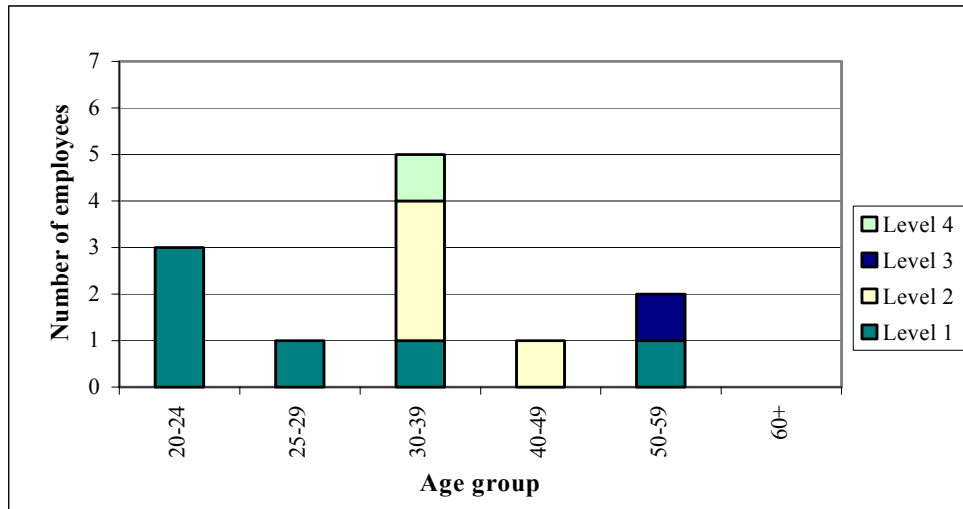
Table 1: Breakdown of the numbers of DHHS orthotists/prosthetists FTE positions at specific award levels

Award levels	PF1	PF2	PF3	PF4	DHHS total
FTE	6.00	4.00	1.00	1.00	12.00
orthotist/prosthetist positions	FTEs	FTEs	FTEs	FTEs	FTEs

Source: DHHS Human Resource Services Information System 21 March 2002 (filled and vacant positions)

Figure 3 displays the age distribution of the DHHS orthotics/prosthetics workforce and the award classifications. The average age of orthotists and prosthetists in DHHS was 38 years, which was slightly under the average age of 40.3 years of the whole DHHS allied health professional workforce. The median age of orthotists and prosthetists in DHHS was 37 years, which was younger than the median age of 42 years of the whole DHHS allied health professional workforce.

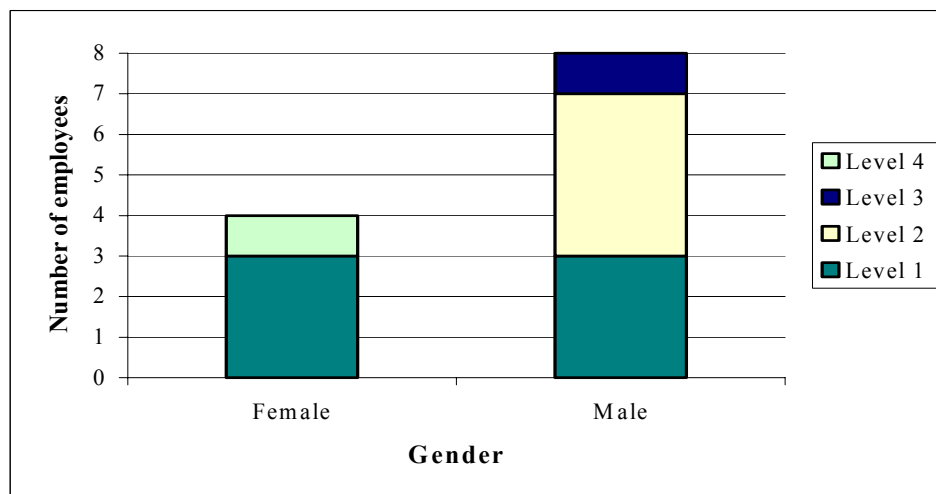
Figure 3: Orthotic/prosthetic workforce per age group and award classification



Source: Human Resource Services Information System 21 March 2002

Figure 4 displays the gender and award classifications distribution across the orthotics/prosthetics workforce. There were four females and eight males employed in DHHS. At 34 per cent, the proportion of females in the DHHS orthotics/prosthetics workforce was the lowest rate for all DHHS allied health professions.

Figure 4: Orthotic/prosthetic workforce per gender and award classification



Source: Human Resource Services Information System 21 March 2002 (filled and vacant positions)

6.1.1.2 DHHS staff survey data

Of the 12 orthotists and prosthetists employed by the DHHS, 12 completed a survey form; resulting in a 100 per cent response rate. Information collected through the survey is presented in this document, where appropriate.

6.1.2 Changes in orthotists and prosthetists numbers

The DHHS Human Resources Service identified that there were no orthotist/prosthetist positions that were vacant for six months in the period from 1 July 2001 to 1 January 2002.

6.1.3 Types of work and client groups

Staff responses to the DHHS staff survey indicated that staff were clinicians or clinician managers.

Consultations with DHHS executive level management indicated that the DHHS orthotics and prosthetics service provides treatments to amputees and orthotic rehabilitation in all regions and across all DHHS Divisions. The service also provides specialised seating to clients in the south.

This was the only DHHS allied health professional service that provided services in the acute and community sectors, through one management structure

The DHHS orthotics and prosthetics service provides an artificial limb service to both public and privately-insured patients.

There was one private practice providing orthotics services in the south of the state.

6.1.4 The education of orthotists and prosthetists

The La Trobe University, Victoria offers a three and a half-year Bachelor of Prosthetics and Orthotics and an honours program in prosthetics and orthotics.

The University of New South Wales offered a four-year Bachelor of Science in Prosthetics and Orthotics for the first time in 2002. This distance-format course also offers existing clinicians the ability to upgrade skills. The university intends to have eventually between 30 and 35 students enrolling in the course each year.

No information was available from the universities on the numbers of Tasmanians who were studying orthotics and prosthetics or where students are employed upon graduation.

The DHHS orthotics and prosthetics service usually provides clinical placements for four undergraduates from La Trobe University each year.

6.1.4.1 DHHS orthotists and prosthetists born outside Australia

Two respondents to the DHHS staff survey indicated that they were born outside Australia, but this information could not be used to say where they were educated.

6.2 Projecting workforce supply

Workforce supply is a balance between outgoing staff (retirees, those temporarily withdrawing from the workforce, emigrants or those who die or take up employment with other employers) and incoming staff (new graduates, immigrants, staff coming from other employment and staff increasing their hours of employment).

6.2.1 Outgoing staff

In the years 2000 and 2001, there was an average of 2.5 permanent, temporary and casual orthotists/prosthetists who left the DHHS per year.

Applying this average to the 21 March 2002 headcount, approximately 21 per cent of the DHHS orthotists/prosthetists workforce left per year. This was one of the higher rates of allied health professions leaving DHHS employment each year.

In order to ascertain the possible future numbers of outgoing orthotists and prosthetists, staff were asked a number of questions in the DHHS staff survey. Staff were asked:

- if the hours they worked were the hours they wanted to work
- if they anticipated a change in their work hours in the next three years and the reasons for this change
- if they were considering leaving the DHHS in the next six to twelve months, and if so, what were the reasons
- what were their levels of satisfaction for a number of professional practice parameters in the DHHS.

Five of the twelve orthotic/prosthetic respondents to the staff survey indicated that they were working between two and seven hours unpaid overtime per week. These staff members indicated they did not want to work these additional hours.

Three respondents to the survey indicated that they anticipated an increase in the hours they worked over the next three years and stated 'work place change' (two respondents) and 'changed patient numbers' (one respondent) as the reasons.

Three respondents to the survey indicated that they anticipated a decrease in the hours they worked over the next three years and stated 'lifestyle preference' (two respondents) and 'changed patient numbers' (one respondent) as the reasons.

Two of the 12 orthotic/prosthetic respondents to the DHHS staff survey indicated that they were considering leaving DHHS in the next six to twelve months. They both stated that their contract was to end.

Table 2 provides the staff responses on levels of satisfaction with the various professional practice parameters.

Table 2 : Staff satisfaction with professional practice parameters in DHHS

Criteria measured	Per cent of respondents who were satisfied or very satisfied
Opportunity to use your abilities	92%
Sufficient work to maintain competence	92%
Hours of work	92%
Amount of work	83%
Overall satisfaction with your practice	92%

Source: DHHS staff survey October 2002

Other information that may be relevant to outgoing staff is that there were two orthotist/prosthetists in the 50 to 59 age group.

6.2.2 Incoming staff

In the two years 2000 and 2001, there were 6 full time, temporary and casual orthotists/prosthetists positions advertised. It was not known if these advertisements were successful.

7 Workforce demand

7.1 Current demand for orthotists and prosthetists

7.1.1 Perceived orthotist/prosthetist service gaps

Representatives of the Tasmanian branch of the Australian Orthotic and Prosthetic Association stated that there was an inability to recruit locums to cover extended periods of leave and this resulted in reduced services and increased waiting lists.

The DHHS has an ongoing Orthotics and Prosthetics State-wide Planning and Implementation Committee that seeks to address service delivery issues raised by clients and other health professionals, e.g. ways to increase clients' physical access to facilities and general practitioner awareness of the service. This Committee has service provider and user representation and has been successful in responding to community concerns.

7.1.2 Patterns of usage

7.1.2.1 Profession to population ratios

The AIHW in its report of 2001, stated that in the 1996 census there were 3.2 orthotists per 100,000 of the Tasmanian population. This was the highest ratio of professionals to 100,000 population in Australia; the average Australian ratio was 1.9 orthotists to 100,000 population.

These figures include orthotists who were employed in the public and private sectors. In the same report, the AIHW stated that there were 15 people in Tasmania classified as orthotists.

The high rates of orthotists per population could be explained by the slightly older average age of the Tasmanian population and subsequent increased community needs.

7.1.2.2 Staff workload assessments

The DHHS staff survey asked orthotists/prosthetists if they considered their current workload was about right, too much or too little. Of the 12 orthotist/prosthetist respondents:

- 9 (75 per cent) stated that their workload was about right
- 3 (25 per cent) stated that their workload was too much.

7.2 Projecting future demand for orthotists and prosthetists

Information from the JobSearch web site of the Commonwealth Department of Employment and Workplace Relations (2002) stated that the work prospects for orthotists/prosthetists are very good and the employment growth is expected to be strong.

7.2.1 Perceived drivers of orthotic and prosthetic services in DHHS

The national drivers for orthotic and prosthetic services could not be found, however, drivers of DHHS orthotic and prosthetic services as perceived by respondents to the DHHS staff survey are described.

The majority of orthotic and prosthetic respondents to the DHHS staff survey perceived that the factors likely to increase the future size of the orthotic and prosthetic workforce were:

- ageing of the population
- changing patterns of health and illness
- patient expectations/knowledge
- advances in medical technology
- multi-disciplinary team provision
- increasing specialisation
- growth in consumer demand.

8 Workforce planning issues identified in consultations

8.1 Satisfaction with DHHS employment

No orthotist/prosthetists attended the DHHS focus groups.

8.2 Professional development to retain and strengthen a quality workforce

8.2.1 Professional association requirements

The Australian Orthotists and Prosthetists Association (which has approximately 50 per cent of the Tasmanian orthotic/prosthetic workforce as members) provides a continuing education program for members. In the

future the Association will require proof of attendance at minimum levels of continuing education for membership of the organisation.

8.2.2 DHHS staff survey

The DHHS staff survey asked if they were offered regular CPD in their current employment. Ten of the twelve respondents indicated that they were.

Staff were asked if they had applied for funding to attend a conference in the last two years and the amount of assistance they received. Four staff indicated that they had applied to attend a conference in the last two years and three indicated that they had received 50 per cent funding assistance.

9 References

Australian Institute of Health and Welfare, 2001, *Health and Community Services Labour Force*, 1996, AIHW cat. no. HWL Canberra: AIHW (National Labour Force Series no. 19).

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