

# Department of Health

# Workforce Review Report

# Prosthetics

# 2019 - 2029



## Foreword

Since October 2016, Health and Social Care workers and the Department of Health have been cooperating to deliver the transformation set out in ***Health and Wellbeing 2026: Delivering Together***. This ambitious ten year plan was our response to the report produced by an Expert Panel led by Professor Bengoa, who were tasked with considering how best to re-configure Health and Social Care Services in Northern Ireland.

The aim is a health and social care system that helps people to stay well for longer, with services delivered in the community or at home, where possible. Allied Health Professions (AHPs) will play a key part in responding to this challenge, particularly as we expand the role of innovative, multidisciplinary teams across a range of integrated care pathways within health and social care settings. No matter how or where AHP staff work, they will continue to maintain their clear professional focus: supporting people, who are ill, have disabilities or special needs, to live the fullest lives possible.

Since these AHP workforce reviews commenced, the landscape across Health and Social Care has changed considerably. Opportunities for AHPs have been created across a range of primary care multi-disciplinary teams. These are to be welcomed, but it is important to have the highly skilled workforce required to take these opportunities as they arise. This series of workforce reviews are written with a view to identifying and quantifying the workforce required to meet these challenges and help drive the transformation agenda forward.

The AHP workforce reviews will help to address one of the immediate priorities set out in the ***New Decade, New Approach*** document published at the time of the establishment of the new Northern Ireland Executive. The commitment being that the Executive will transform HSC services through reconfiguration of services.

There is however currently a bigger challenge facing the HSC system in the guise of the current Covid-19 pandemic. This is challenging us in many ways, including the immense pressures placed on our workforce and the need to think and act differently, and to consider how we currently work and how we may work in the future.

In this changing environment, it is even more essential that we have an understanding of our workforce needs, so that we can plan effectively to maintain and develop our services into the future. This was recognised in ***Health and Wellbeing 2026: Delivering Together*** and appears as a key theme in the associated ***Health and Social Care Workforce Strategy 2026: Delivering for Our People***. Recognising that the HSC is a changing environment and will continue to evolve, this series of workforce reviews are “living documents” which will be reviewed throughout the period of the reviews.

This Workforce Review Report, and the clear recommendations it contains, is the result of a wider Workforce Review Programme covering all thirteen AHPs in Northern Ireland. Since March 2017, Project Groups comprising representatives from across the health and social care service, professional bodies, staff side representatives and the Department of Health, have been meeting regularly to consider how these professions / services are likely to develop in the period 2019 – 2029. Their work has been overseen by the AHP Workforce Review Programme Steering Group and applies the ***Regional HSC Workforce Planning Framework’s*** six step methodology.


This process and its resulting Workforce Review Reports are the products of active co-design and co-production, delivering together to ensure the workforce needs of the HSC are met. Project Groups have engaged with their stakeholders, including service users and carers, both in formal engagement events and through ongoing involvement with relevant individuals and organisations. Their input has been invaluable in producing this final document and its recommendations.

We would like to thank everyone who has contributed to the work of the AHP Workforce Review Programme.

Our vision is for Northern Ireland to have an AHP workforce that has the capacity and capability to deliver the best possible care, for patients and clients, and has the leadership skills and opportunities to lead and transform services to improve population health. The Prosthetics Workforce Review Report and its recommendations set us on course to do just that for this profession.



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## **Introduction**

Limb loss and any related co-morbidities are life-long conditions, it is recognised that limb loss can be managed effectively through specialised rehabilitation services. The Regional Amputee Rehabilitation Service at Musgrave Park Hospital is a contracted service through a private sector provider. Belfast Trust tenders the service provision contract for the Regional Northern Ireland Service every 7 Years. The tender specification places the patient at the heart of everything the rehabilitation service centres does. It focuses on maximising their independence, achievement of their individual goals and improving their quality of life. The service specification empowers and liberates clinicians to innovate, with the freedom to focus on improving healthcare services.

The Amputee Rehabilitation Service contract has been delivered at Musgrave Park Hospital for the past 20 years by Opcare Ltd. Opcare Ltd delivers a complete range of Prosthetic Services for both upper and lower limb loss, working in conjunction with the HSC. Opcare Ltd employ the Prosthetist and Prosthetic Technicians (who manufacture the artificial limbs) and Administrators in the centres where they operate and provide central support regarding Logistics, Human Resources and Quality Management.

## **Defining the plan**

The purpose of this plan is to review current prosthetist staff employed in Northern Ireland and ensure future service sustainability. Prosthetist numbers are small but the importance of ensuring people entering the profession from Northern Ireland is important. This means applicants will apply if a prosthetist position becomes available.

This plan will examine the prosthetists currently employed at the Amputee Rehabilitation Service only. It will look at drivers within Northern Ireland that create new graduate prosthetists who will enter the profession.

Stakeholders who have a stake in the prosthetic service would be Belfast Trust who manage the Regional Service on behalf of the region. Their Disability Services Manager is responsible for managing this contract. Opcare Ltd is the service provider, locally managed by the Prosthetic Manager and nationally by the Clinical Service Director.

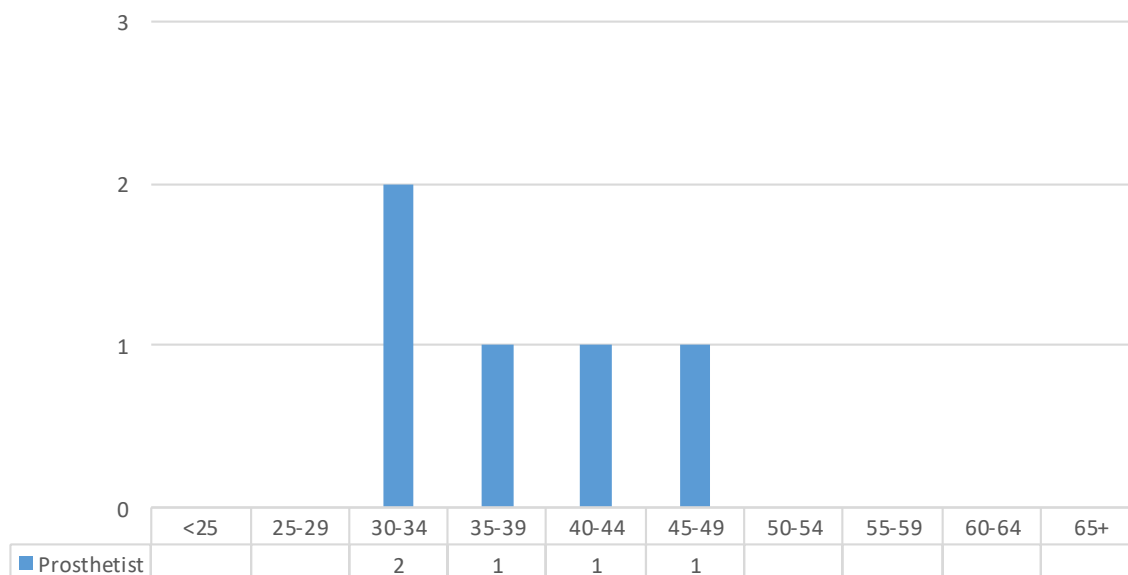
The main driver for change in the prosthetic service is the contract specification when the service goes out to tender. This defines the service specification for the Regional Service and is what private companies tender their bids against. Staffing levels will also be specified in this contract. Length of the service contract, which currently is 7 years, is important to allow service providers time to develop staff and the service without the impending risk of re-tendering.

Having a Regional Service consolidates all the skills and facilities into one location. This allows users to gain rapid access to appointments within 24 hours to address mechanical issues with their prosthesis. It allows a full multidisciplinary team approach to patient care in one location and flexibility to meet the changing demands of service users.

### Mapping Service Change

For many years the prosthetic staff has been relatively static in Northern Ireland, with the majority of prosthetists having over 10 years' service.

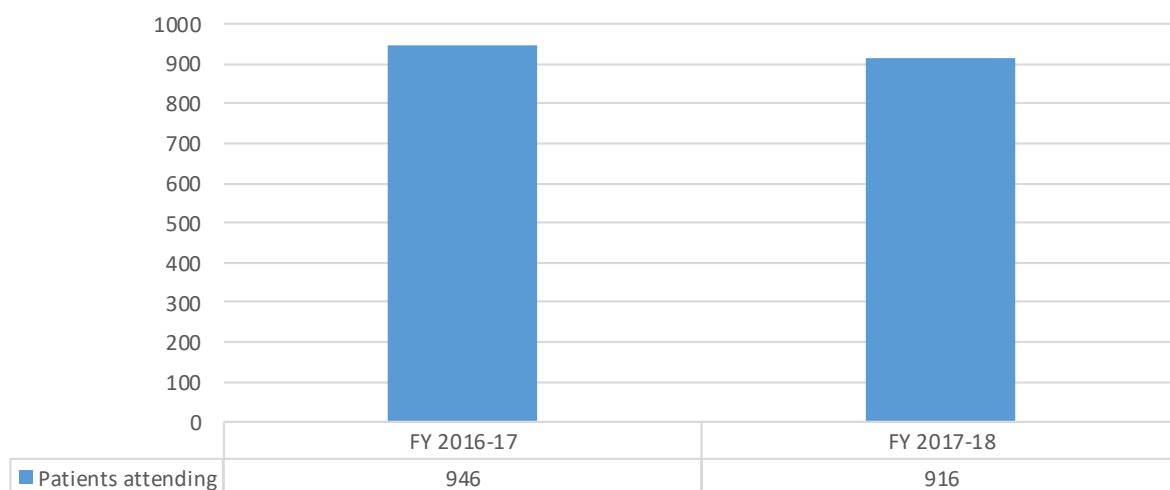
*Table 1* illustrates the age range of the 5 prosthetists currently employed.



*Table 1*

The prosthetist population remains healthy with a total of 8 hours lost to sickness over the financial year 2016/17. The gender of the prosthetist population is 3 male and 2 female staff.

These 5 staff look after a patient population for 1880 active users, however only 50% of users attend the prosthetic service on an annual basis – see *Table 2*.



*Table 2*

With the aetiology of the condition, all patients are lifelong users of the service.

The prosthetic service currently is regionally located at Musgrave Park Hospital in Belfast. All patients throughout Northern Ireland are initially referred into the service by hospital doctors or GP’s and remain on open referrals for life. This allows patients to self-refer when they think service intervention is required.

### **Defining the required workforce – skills mix**

The Amputee Rehabilitation Service relies on referrals from Hospitals and GP’s around the province to maintain its population. Over the last three financial years, the number of individual patients being referred with amputation has slightly decreased, as illustrated in table 3. This may be due to other initiatives in Northern Ireland which are working to prevent amputation in diabetics or improvement in surgical techniques.



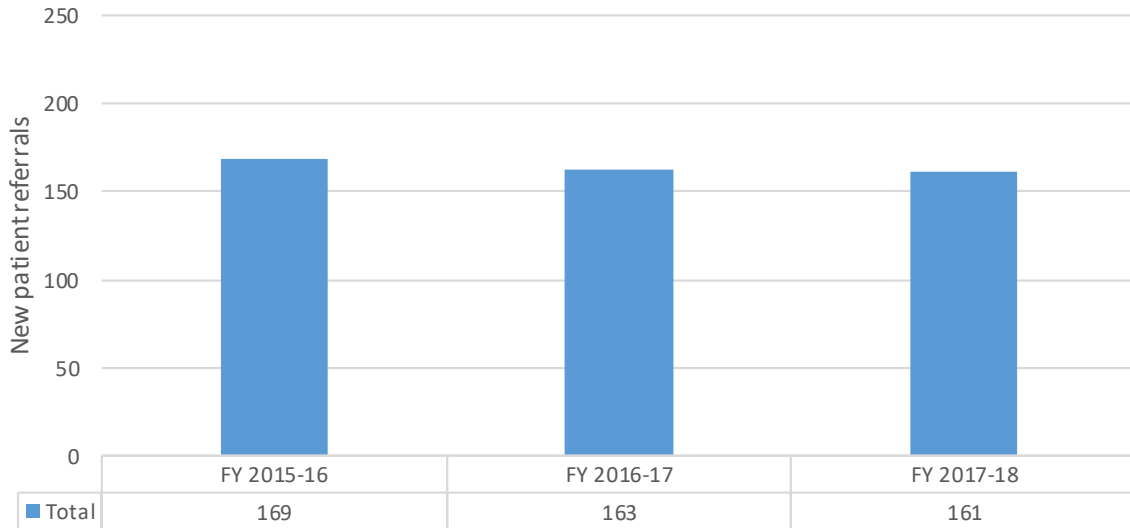
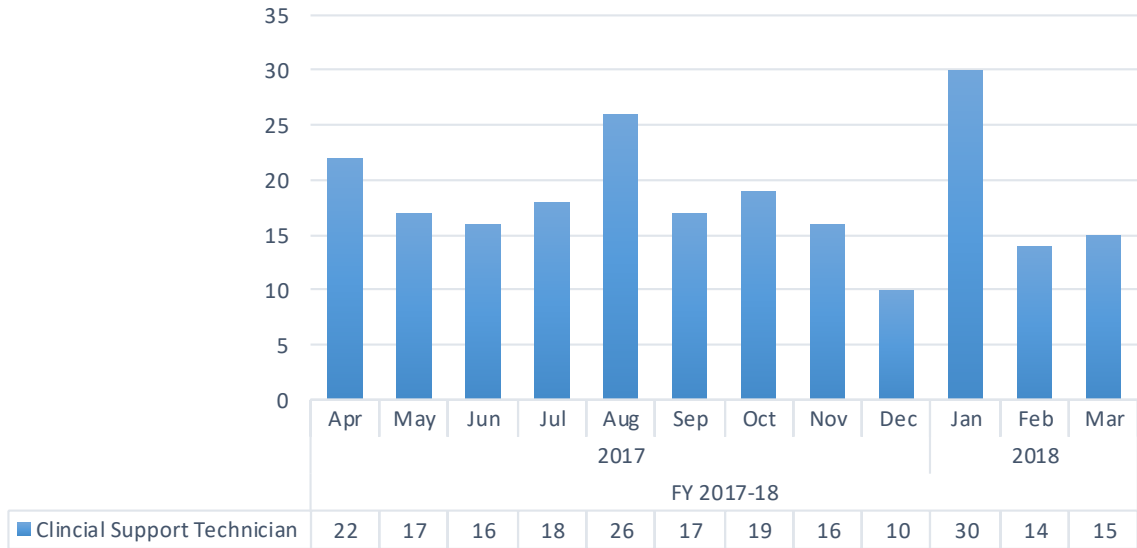


Table 3

The prosthetic service has 5 full time prosthetists employed. 3 Years ago there were 6 prosthetists, however following retirement it was decided not to replace this role. Instead an additional prosthetic technician was employed to allow further utilisation of the clinical support technician within the service. This role allows the prosthetic technician to deal with patients' mechanical repair issues, allowing service users to access the person with the best skill set to resolve their problem. This also frees up prosthetist time to deal with other complex clinical issues.

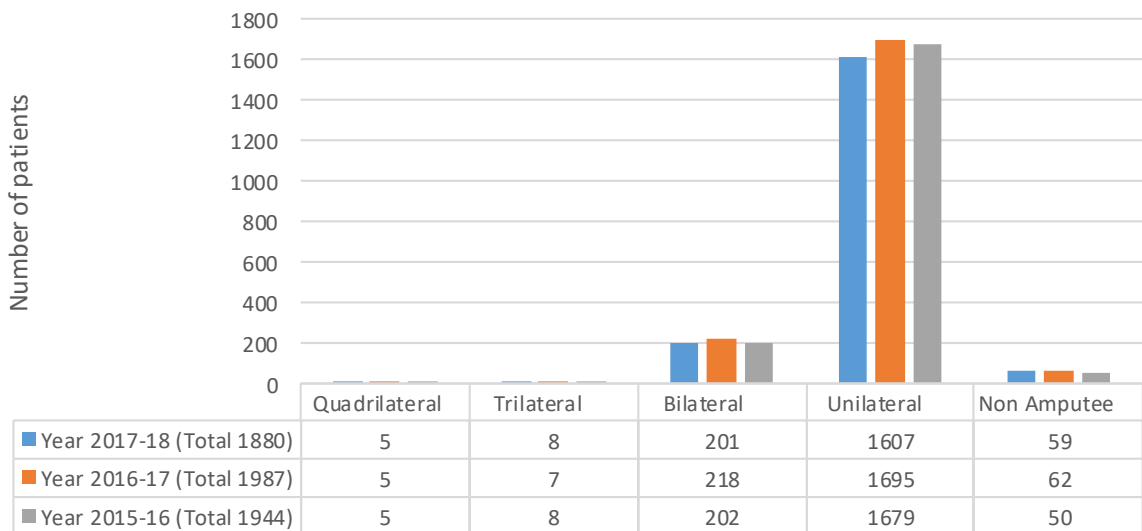
During the financial year 2017/18 the clinical support technician role saved 220 clinical appointment slots for the service as illustrated in *Table 4*.



*Table 4*

Following completion of a 1-year trial on this project, the new service model was adopted in February 2018.

There has also been a reduction in the number of active patients who attend the Regional prosthetic service. This has been due to cleansing of the database – see *Table 5*.



*Table 5*

Over the last 3 years, computer aided design (CAD) has heavily influenced prosthetist productivity and how they work. The traditional method of plaster bandage and plaster of paris for production of patient models was labour and time intensive. A transtibial (below knee) prosthetic model would on average take 3 hours of prosthetist time from start to finish, transfemoral (above knee) would take 4 hours.

With the introduction of CAD, prosthetists have been on a learning curve to develop new skills that have influenced their practice. Plaster bandage for shape capture has been replaced by a white light scanner (Figure 1).



*Figure 1*





*Figure 2*

Omega Software (Figure 2) has replaced plaster of paris for model creation and rectification. This allows the prosthetist to manipulate the model on computer before emailing to a robot CNC machine to carve the physical model for production.

A transtibial prosthetic model now takes 1 hour 30 minutes and transfemoral 1 hour. While not all work can be done using CAD over plaster, 70% of new limbs and new sockets are now produced using the CAD method impacting on prosthetist productivity.

### **Understanding workforce availability**

For prosthetics, two undergraduate courses are available in the United Kingdom as detailed below.

	BSc Prosthetics & Orthotics
	BSc Prosthetics & Orthotics

These courses provide the main workforce that will apply for prosthetic jobs in Northern Ireland when they become available. 60 students per year are trained through both UK undergraduate courses however recent statistics show that almost 30% do not enter the profession. Northern Ireland takes two 4 month student placement from either university per year.

Another important driver to the university courses is students from local Northern Ireland schools attending work placement during their lower sixth year. Career awareness in the schools means the prosthetic department receives numerous requests each year for work placement.

It would be important to maintain a professional presence at local career fairs within Northern Ireland to ensure the prosthetist profession continues to attract interested students to follow this as a career path. Having a reasonable pool of graduated prosthetists working in the United Kingdom from Northern Ireland should ensure any future vacancies would receive applications.

Current prosthetists employed range from 30 to 49 years of age (*Table 1*). Retirement is not expected to be a major factor on staffing levels in the near future.

In England, Skills for Health is currently developing Healthcare Apprenticeships for both Prosthetic Technicians and Prosthetists (<https://haso.skillsforhealth.org.uk/?s=prosthetics&lvl=all>). At the time of this report, both programmes are at the “In development” stage, with no known completion date.

The service has no issues currently with retention as the majority of prosthetists have been employed for over 10 years.

## Stakeholder Engagement

During this workforce review a stakeholder event was organised on the 7<sup>th</sup> September 2018 at University of Ulster, Jordanstown. This presented

an opportunity to gain insight into what users, other clinical professions and management thought was important in prosthetist workforce planning by asking 4 questions and then ranking them in priority.

Question 1:

Recruitment – What needs to be done to attract the right people with the right skills into these professions?

Answers question 1:

- Awareness of profession
- Career progression
- Involve patients in sharing their stories in relation to how these professions can make a difference

Question 2:

Retention – What needs to be done to make people aspire to remain working in these professions?

Answers question 2:

- Ability to progress...
- Feeling valued expressed in similar Terms and Conditions
- Working with NOT for - i.e. equality within MDT - mutual respect

Question 3:

The future of the service you provide or the service you receive – How should it develop and be delivered in the future?

Answers question 3:

- Using technology more effectively - more online access
- Asking service users what they want and keeping up to date information
- Look at different models of delivery via inclusion of all relevant parties

Reflection:

Having discussed all of this today, what would you now suggest as the top priority for the AHP workforce reviews to deliver?

Answers to reflection:

- Recognition of professional autonomy

## Conclusion and Recommendations

The prosthetic profession in Northern Ireland is currently in a good place with no workforce issues at present. Retention levels remain high. New CAD working practices have increased productivity, leaving more clinical appointment time. Development of the Clinical Support technician role has assisted clinical capacity and provided a new service initiative for patient care.

Having a regional service model located in one location, allows users to access one place and have all prosthetic issues dealt with in a timely manner.

No threats to service provision and the workforce have been identified to date, a continuing strategy of student and under-graduate engagement along with professional promotion should encourage a healthy interest in prosthetics in Northern Ireland for the future. We would welcome the opportunity to become involved in the work of the new Regional Health and Social Care Careers Service.

	Recommendations
<b>Undergraduate training</b>	<ul style="list-style-type: none"> <li>• Continue student placements from both universities.</li> <li>• Offer work experience to school leavers</li> </ul>
<b>Post graduate training</b>	<ul style="list-style-type: none"> <li>• Service Contract length should continue as currently. This time scale allows stability and encourages service and staff investment and development. This also allows opportunity for career progression.</li> <li>• Allow prosthetists to access regional AHP courses.</li> </ul>
<b>Recruitment and retention</b>	<ul style="list-style-type: none"> <li>• Increase presence in AHP career literature for school students considering healthcare profession</li> <li>• Contribute to service development and contract specification.</li> <li>• Recognition that prosthetists are autonomous professionals</li> </ul>
<b>Transformation</b>	<ul style="list-style-type: none"> <li>• Healthcare Apprenticeships is a new development for prosthetics. While the</li> </ul>

	<b>Recommendations</b>
	<p>delivery time scale and outcome is currently unknown for this new initiative, it does offer a new career pathway into prosthetics. This will continue to be monitored and utilised if it does come to fruition.</p> <ul style="list-style-type: none"> <li>• Development of the CST role.</li> </ul>

An appropriate action/implementation plan will be developed and published on the Department of Health's website and the Workforce Strategy Programme Board will be updated on progress.