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OUTCOMES



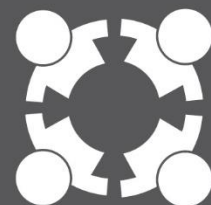
INTEGRITY



BOLDNESS



TEAMWORK



Technicians Support Services
Industry Reference Committee
2019 Industry Skills Forecast
DRAFT

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Executive Summary

To be completed after public consultation.

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Administrative Information

Industry
Reference
Committee
(IRC)

Technicians Support Services

The Technicians Support Services Industry Reference Committee (IRC) is responsible for ensuring that nationally recognised qualifications deliver the skills and knowledge required to equip the sectors under its remit with a highly skilled workforce. The sectors represent those involved in providing human health care and social assistance.

Skills Service
Organisation
(SSO)

SkillsIQ Limited

SkillsIQ supports 18 IRCs representing diverse 'people-facing' sectors. These sectors provide services to people in a variety of contexts such as customer, patient or client. The IRCs are collectively responsible for overseeing the development and review of Training Package Products, including qualifications, serving the skills needs of sectors comprising almost 50 per cent of the Australian workforce.

SkillsIQ's Industry Reference Committees (IRCs)

- Aboriginal and Torres Strait Islander Health Worker
- Aged Services
- Ambulance and Paramedic
- Children's Education and Care
- Client Services
- Community Sector and Development
- Complementary Health
- Dental
- Direct Client Care and Support
- Enrolled Nursing
- First Aid
- Local Government
- Personal Services
- Public Sector
- Sport and Recreation
- Technicians Support Services
- Tourism, Travel and Hospitality
- Wholesale and Retail Services.

"It takes skill to make a difference.

We will only get skilled, valued and rounded workers when training, employee and employer are connected in their views on continuous learning."

SkillsIQ's Cross-sector Skills Committee

IRC Sign-off

Sign-off of this Industry Skills Forecast and Proposed Schedule of Work has been confirmed by the Technicians Support Services Industry Reference Committee.

Tony Badrick

Chair

A. Skills Forecast

A.1 Sector Overview

Introduction

Technicians Support Services cover an array of health care and social assistance sectors, and subsequently a range of multi-levelled and multi-skilled job roles. Most job roles are involved in undertaking administrative, assistant, operating (i.e. technician) and/or supervisory activities in sectors including:

- Audiometry
- Cardiac Technology
- Health Administration
- Hospital Pharmacies
- Medical Practice Assisting
- Operating Theatre Support
- Optometry
- Pathology, and
- Sterilisation Services.

Businesses Involved

Businesses operating in the service areas outlined above include a range of public and private, small, medium and large enterprises, spread across the country. Some examples and counts of relevant business types involved in hiring workers supported by the Technicians Support Services Training Package across Australia include (2017):¹

- 695 public hospitals (2016-17) and 630 private hospitals (2015-16)²
- 42,057 general practice medical services
- 16,490 specialist medical services
- 2,331 pathology and diagnostic imaging services
- 3,193 optometry and optical dispensing
- 6,263 physiotherapy services
- 5,196 chiropractic and osteopathic services.

Stakeholders

Key stakeholders represent a range of organisations that perform a variety of strategic, regulative and operational roles in the Technicians Support Services sectors within the wider health and social assistance industry. Stakeholders play an important role during Training Package reviews by supplying industry insights to ensure updates are in line with industry needs. Examples of stakeholder organisations include:

- Government departments and agencies (Commonwealth and state/territory-based)
- Peak bodies and industry associations (i.e. across the sectors listed earlier)
- Employee associations
- Registered Training Organisations (RTOs) both public and private and their representative bodies

¹ Australian Bureau of Statistics (ABS)(2018) *Counts of Australian Businesses, including Entries and Exits, Jun 2013 to Jun 2017*, cat. no. 8165.0. Canberra.

² Australian Institute of Health and Welfare 2018. *Australia's hospitals 2016–17 at a glance*. Health services series no. 85. Cat. no. HSE 204. Canberra: AIHW.

- Small, medium and large-sized private and public employers across metropolitan, regional, rural and remote areas, including for-profit and not-for-profit organisations.

Challenges and Opportunities

Note: These findings are based on desk research and SkillsIQ's 2019 Future Skills Survey (conducted between November 2018 and January 2019) which has been filtered to include stakeholders from the Technicians Support Services industries only. Insights and advice from IRC members have also been used to compile and validate the information provided.

➤ Ageing workforce

The ageing workforce trend presents a new challenge to adopt workplace arrangements that will retain a substantial number of mature-age workers. The Treasury expects the labour force participation rate for people aged 65 or over to increase from 12.9% to 17.3% over the period 2014–2054.³ Advantages of retaining mature-age workers include their extensive work experience, maturity levels/professionalism, stronger work ethic and reliability.⁴ Strategies to retain mature-age workers, such as job redesign to accommodate constraints stemming from the aging process, are necessary.

➤ New technologies

Digital health technologies enable individuals to track, manage and improve their health and care. Digital health technologies include the use of mobile phones, wearables, Telehealth, telemedicine/telecare, personalised medicine and health information technology.⁵ The Australian Digital Health Agency's *National Digital Health Strategy* aims to implement digital technologies by 2020 to offer "seamless, safe, secure digital health services and technologies that provide a range of innovative, easy to use tools for both patients and providers".⁶ The transition towards a national digital health care platform will require health care professionals to be educated about digital health and the use of the My Health Record. Digital skills and knowledge areas are becoming increasingly important for job roles within the Technicians Support Services sector.

➤ Skills shortages

Skills shortages are reported predominantly within the pathology service area. Skills gaps are linked to insufficient qualification assessments and a lack of basic skills; increased technical skills requirements; and an undersupply of training and education, including workplace training. In effect, there has been a lack of pathology workers, particularly in rural regions, where the job role "pathology collector" has been listed in the Regional Sponsored Migration Scheme (RSMS) visa list since March 2018.⁷ As such, there is a need to improve the quality of education and training for prospective pathology students to fill this skills shortage.

³ Commonwealth of Australia Treasury (2015) *2015 Intergenerational Report Australia in 2055*, Retrieved from: https://static.treasury.gov.au/uploads/sites/1/2017/06/2015_IGR.pdf [Viewed 4 February 2019]

⁴ Society for Human Resource Management (2016) *Preparing for an Aging Workforce: Health Care and Social Assistance Industry Toolkit*, Retrieved from: <https://www.shrm.org/hr-today/trends-and-forecasting/research-and-surveys/Documents/Preparing%20for%20an%20Aging%20Workforce%20-%20Health%20Care%20and%20Social%20Assistance%20Industry%20Toolkit.pdf> [Viewed 30 January 2019]

⁵ Digital Health and Care Institute, *What is Digital Health?*, Retrieved from: <https://dhi-scotland.com/about-dhi/what-is-digital-health/> [Viewed 21 January 2019]

⁶ Australian Digital Health Agency (2018) *Safe, seamless and secure: evolving health and care to meet the needs of modern Australia. Australia's National Digital Health Strategy*. Retrieved from: https://conversation.digitalhealth.gov.au/sites/default/files/adha-strategy-doc-2ndaug_0_1.pdf [Viewed 23 January 2019]

⁷ SBS (2018) *New Regional Occupation List introduced for RSMS 187 visa*. Retrieved from: <https://www.sbs.com.au/yourlanguage/hindi/en/article/2018/03/19/new-regional-occupation-list-introduced-rsms-187-visa>. [Viewed 24 January 2019]

➤ **Retention of staff**

Retaining health support workers is widely known to be an issue strongly experienced in rural locations. In 2015, administrative/support worker vacancies in government-funded Indigenous primary health care organisations were highest in very remote areas.⁸ Furthermore, retention of staff in the sector may be tainted by high levels of fixed term contracts and casual employment. In the beginning of 2018, health care services had the third-highest number of casual workers, behind accommodation & food services and retail trade.⁹ Workplace stress and bullying can also have a negative impact on staff retention among health administration workers. A Victorian Public Sector Commission survey in 2016 showed a quarter (25%) of staff in health agencies experienced bullying.¹⁰ Efforts to retain staff in the health sector are beneficial as it enhances the quality of patient safety and outcomes and reduces staff turnover costs.

Other challenges reported include:

➤ **Government / legislation changes**

The 457 visa governing the temporary employment of overseas workers in Australia was replaced by the Temporary Skills Shortage (TSS)/482 visa in April 2017. The 457 to 482 visa change has increased the complexity and cost of the application process for overseas workers.¹¹ Relative to the Technicians Support Services industry, the role of Medical Technician is included under the TSS visa list of eligible occupations. Soon after the visa change, between July to September 2017, the number of visas granted had decreased by 35.7% compared to the same quarter of the previous year.¹² In effect, the 457 to 482 visa change may have a negative impact on the supply of medical technicians to the Australian workforce.

➤ **Lack of career progression**

A lack of career progression is a significant problem in the hospital and health services pharmacy support, health administration and pathology sectors. The Society of Hospital Pharmacists of Australia's (SHPA's) paper, *Exploring the role of hospital pharmacy technicians and assistants to enhance the delivery of patient centred care*, reported that there are limited career advancement opportunities for pharmacy technicians and assistants.¹³ At present, most hospital pharmacy technicians/assistants work within a flat career structure. One of the barriers to expanding the structure to senior-level positions is that certain Australian states require academic requisites that are not covered by the Australian medical technician/assistant curriculum. For example, in New South Wales a Level 4 technician advancing to a senior-level role requires a management qualification. As a

⁸ Department of Prime Minister and Cabinet (2017) *Aboriginal and Torres Strait Islander Health Performance Framework 2017 Report*. Retrieved from: <https://www.pmc.gov.au/sites/default/files/publications/indigenous/hpf-2017/tier3/322.html> [Viewed 23 January 2019]

⁹ Ai Group (2018) *Casual work and part-time work in Australia in 2018*. Retrieved from: [https://cdn.aigroup.com.au/Economic Indicators/Research Notes/2018/Ai Group casual work June 2018.pdf](https://cdn.aigroup.com.au/Economic%20Indicators/Research%20Notes/2018/Ai%20Group%20casual%20work%20June%202018.pdf). [Viewed 23 January 2019]

¹⁰ Macquarie University (2018) *How to solve the problem of workplace bullying in health care*. Retrieved from: <https://www.scimex.org/newsfeed/how-to-solve-the-problem-of-workplace-bullying-in-health-care>. [Viewed on 23 January 2019]

¹¹ Work Visa Lawyers (2018) *457 Visa Abolished and Replaced by TSS 482 Visa – Changes Summarised*. Retrieved from: <https://www.workvisalawyers.com.au/news/all/457-visa-abolished-and-replaced-by-tss-482-visa-changes-summarised.html>. [Viewed 23 January 2019]

¹² Parliament of Australia (2018) *Assessing the effect of recent 457 visa policy changes*. Retrieved from: [https://www.aph.gov.au/About Parliament/Parliamentary Departments/Parliamentary Library/FlagPost/2018/January/Assessing the effect of recent 457 visa policy change](https://www.aph.gov.au/About%20Parliament/Parliamentary%20Departments/Parliamentary%20Library/FlagPost/2018/January/Assessing%20the%20effect%20of%20recent%20457%20visa%20policy%20change). [Viewed 23 January 2019]

¹³ The Society of Hospital Pharmacists of Australia (2016) *Exploring the role of hospital pharmacy technicians and assistants to enhance the delivery of patient centred care*, Retrieved from: https://www.shpa.org.au/sites/default/files/uploaded-content/website-content/final_tech_redesign_white_paper_november_revision.pdf [Viewed 31 January 2019]

result, gaps are filled by highly trained technicians from the United Kingdom or overseas-trained pharmacists. To build a career structure for medical technicians and assistants, education and training should incorporate foundations that consider senior-level job roles and other possible future career paths.

Vocational Education and Training (VET) Qualifications Supporting Industry

The nationally recognised VET qualifications that cater to this sector are:

Sterilisation Services

- HLT37015 Certificate III in Sterilisation Services
- HLT47015 Certificate IV in Sterilisation Services

Hospital/Health Services Pharmacy Support

- HLT37115 Certificate III in Hospital/Health Services Pharmacy Support
- HLT47115 Certificate IV in Hospital/Health Services Pharmacy Support

Pathology

- HLT37215 Certificate III in Pathology Collection
- HLT37415 Certificate III in Pathology Assistance

Health Administration

- HLT37315 Certificate III in Health Administration

- HLT47315 Certificate IV in Health Administration

Audiometry

- HLT47415 Certificate IV in Audiometry
- HLT57415 Diploma of Audiometry

Operating Theatre Technical Support

- HLT47515 Certificate IV in Operating Theatre Technical Support

Cardiac Technology

- HLT47615 Certificate IV in Cardiac Technology

Medical Practice Assisting

- HLT47715 Certificate IV in Medical Practice Assisting

Optical Dispensing

- HLT47815 Certificate IV in Optical Dispensing

Practice Management

- HLT57715 Diploma of Practice Management

Anaesthetic Technology

- HLT57915 Diploma of Anaesthetic Technology.

Table 1: Number of Registered Training Organisations (RTOs) by nationally recognised **Technicians Support Services** qualifications on scope – Technicians Support Services Training Package Products

Qualification Code	Qualification name	No. of RTOs with qualification on scope
Sterilisation Services		
HLT37015	Certificate III in Sterilisation Services	14
HLT47015	Certificate IV in Sterilisation Services	4
Hospital/Health Services Pharmacy Support		
HLT37115	Certificate III in Hospital/Health Services Pharmacy Support	4
HLT47115	Certificate IV in Hospital/Health Services Pharmacy Support	5
Pathology		
HLT37215	Certificate III in Pathology Collection	35*
HLT37415	Certificate III in Pathology Assistance	7
Health Administration		
HLT37315	Certificate III in Health Administration	31
HLT47315	Certificate IV in Health Administration	29
Audiometry		
HLT47415	Certificate IV in Audiometry	1
HLT57415	Diploma of Audiometry	1

Qualification Code	Qualification name	No. of RTOs with qualification on scope
Operating Theatre Technical Support		
HLT47515	Certificate IV in Operating Theatre Technical Support	5
Cardiac Technology		
HLT47615	Certificate IV in Cardiac Technology	0
Medical Practice Assisting		
HLT47715	Certificate IV in Medical Practice Assisting	5
Optical Dispensing		
HLT47815	Certificate IV in Optical Dispensing	5
Practice Management		
HLT57715	Diploma of Practice Management	25
Anaesthetic Technology		
HLT57915	Diploma of Anaesthetic Technology	4

Source: Training.gov.au. RTOs approved to deliver this qualification. Accessed 14 January 2019.

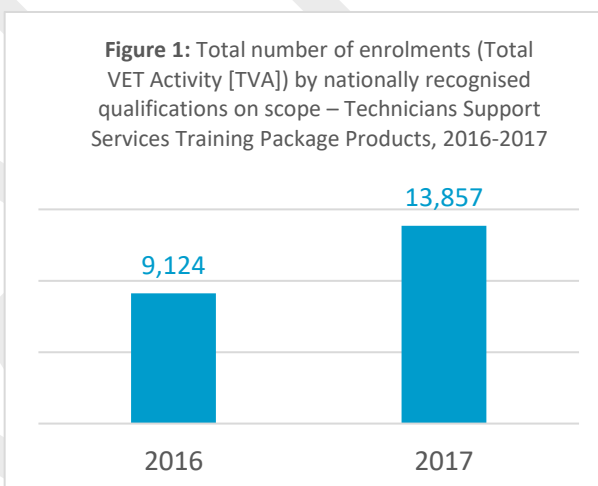
*The national register lists 35 RTOs with this qualification on scope. However, it is noted that one RTO is listed twice.

Enrolments and Completions

In 2017, there were just over **13,800 enrolments** across all VET qualifications catered for by the Technicians Support Services Training Package Products. This represents an increase of 52% (equivalent to 4,733 enrolments) from the previous year (see **Figure 1**).

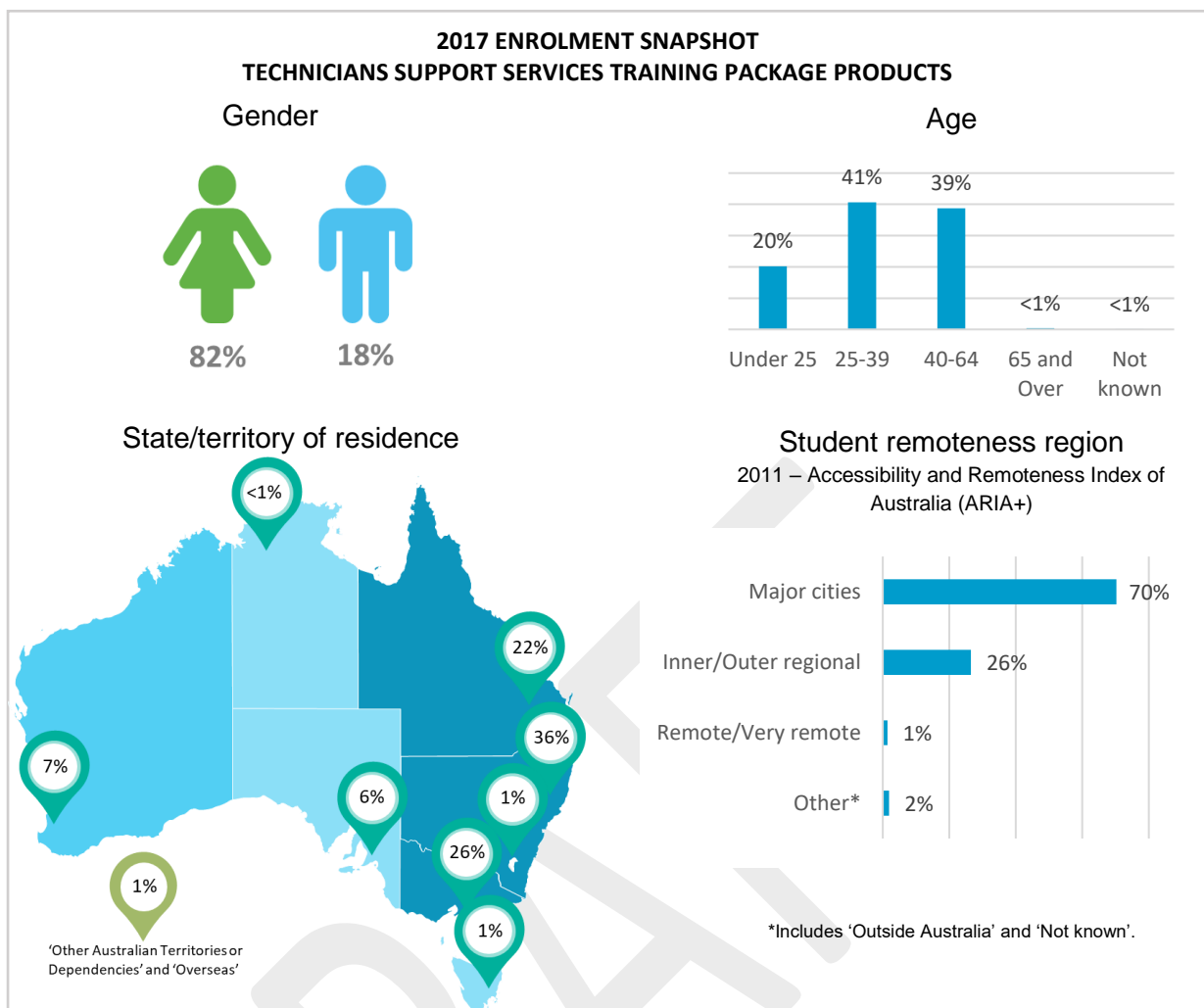
The most popular qualifications in 2017 were:

- HLT37215 - Certificate III in Pathology Collection (4,709 enrolments)
- HLT57715 - Diploma of Practice Management (2,137 enrolments)



Source: NCVET VOCSTATS, Program enrolments 2016-2017

A snapshot of key traits of the *HLT Training Package - Technicians Support Services* enrolments for 2017 is provided below, followed by a breakdown of enrolments and completions for individual qualifications (see **Table 2** and **Table 3**).



Source: NCVER VOCSTATS (Program enrolments 2017 by various breakdowns)

General notes on statistics:

1. Enrolment and completion data is sourced from NCVER VOCSTATS (program enrolments and completions 2016–2017), accessed December 2018.
2. It is important to note that not all training providers are currently required to submit enrolment and completion data, and some figures presented may therefore under-represent the true count of enrolments and completions for a qualification. From 2018, **all** training providers will be required to submit data, and current discrepancies noted in the national NCVER figures versus actual attendance should therefore be minimal in future releases. The data presented in this report is shown for indicative purposes.
3. Figures reflect public and private RTO data.
4. Completion data for 2017 represents preliminary outcomes (i.e. not a full year).
5. Superseded qualifications and their respective enrolment and completion data are not tabled.

Table 2: Total number of enrolments (Total VET Activity [TVA]) by nationally recognised qualifications on scope – Technicians Support Services Training Package Products, 2016–2017

Qualification	2016	2017	Total
Sterilisation Services			
HLT37015 - Certificate III in Sterilisation Services	950	1,498	2,448
HLT47015 - Certificate IV in Sterilisation Services	132	370	502
Hospital/Health Services Pharmacy Support			
HLT37115 - Certificate III in Hospital/Health Services Pharmacy Support	37	127	164
HLT47115 - Certificate IV in Hospital/Health Services Pharmacy Support	200	321	521
Pathology			
HLT37215 - Certificate III in Pathology Collection	2,329	4,709	7,038
HLT37415 - Certificate III in Pathology Assistance	195	231	426
Health Administration			
HLT37315 - Certificate III in Health Administration	1,035	1,731	2,766
HLT47315 - Certificate IV in Health Administration	775	1,269	2,044
Audiometry			
HLT47415 - Certificate IV in Audiometry	39	52	91
HLT57415 - Diploma of Audiometry	134	212	346
Operating Theatre Technical Support			
HLT47515 - Certificate IV in Operating Theatre Technical Support	127	228	355
Medical Practice Assisting			
HLT47715 - Certificate IV in Medical Practice Assisting	132	312	444
Optical Dispensing			
HLT47815 - Certificate IV in Optical Dispensing	258	482	740
Practice Management			
HLT57715 - Diploma of Practice Management	2,610	2,137	4,747
Anaesthetic Technology			
HLT57915 - Diploma of Anaesthetic Technology	171	178	349

Source: NCVER VOCSTATS, accessed December 2018.

Note: HLT47615 - Certificate IV in Cardiac Technology was not listed in the NCVER data at the time of reporting.

Table 3: Total number of completions (Total VET Activity [TVA]) by nationally recognised qualifications on scope – Technicians Support Services Training Package Products, 2016–2017

Qualification	2016	2017	Total
Sterilisation Services			
HLT37015 - Certificate III in Sterilisation Services	271	642	913
HLT47015 - Certificate IV in Sterilisation Services	0	131	131
Hospital/Health Services Pharmacy Support			
HLT37115 - Certificate III in Hospital/Health Services	0	36	36
HLT47115 - Certificate IV in Hospital/Health Services	33	81	114
Pathology			
HLT37215 - Certificate III in Pathology Collection	773	1,861	2,634
HLT37415 - Certificate III in Pathology Assistance	89	76	165
Health Administration			

Qualification	2016	2017	Total
HLT37315 - Certificate III in Health Administration	198	387	585
HLT47315 - Certificate IV in Health Administration	132	189	321
Audiometry			
HLT47415 - Certificate IV in Audiometry	2	8	10
HLT57415 - Diploma of Audiometry	6	21	27
Operating Theatre Technical Support			
HLT47515 - Certificate IV in Operating Theatre Technical Support	0	101	101
Medical Practice Assisting			
HLT47715 - Certificate IV in Medical Practice Assisting	1	22	23
Optical Dispensing			
HLT47815 - Certificate IV in Optical Dispensing	47	178	225
Practice Management			
HLT57715 - Diploma of Practice Management	89	235	324
Anaesthetic Technology			
HLT57915 - Diploma of Anaesthetic Technology	35	74	109

Source: NCVER VOCSTATS, accessed December 2018.

Note: HLT47615 - Certificate IV in Cardiac Technology was not listed in the NCVER data at time of reporting.

A.2 Employment and Skills Outlook Overview

Employment – Current and Projected

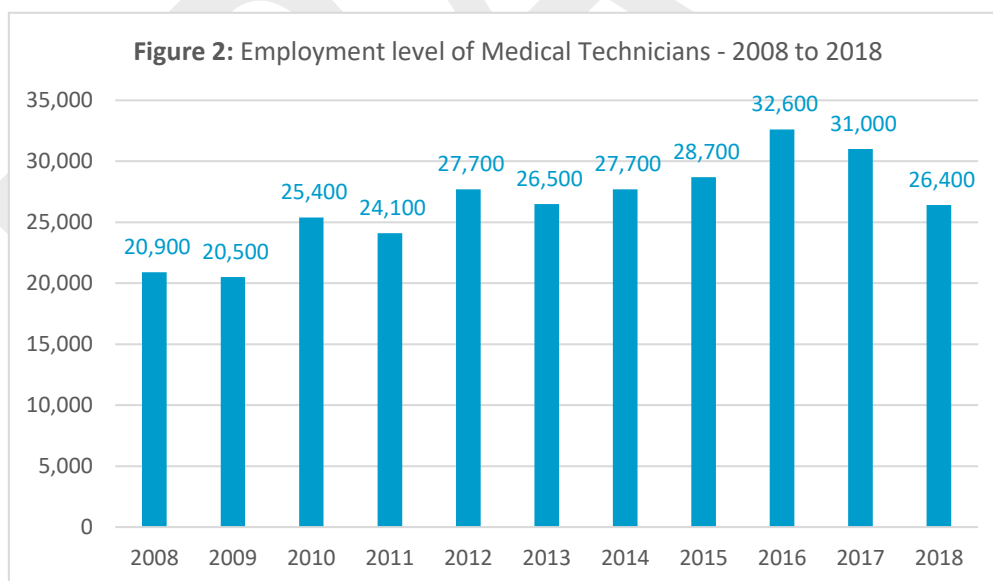
Note: The principal data source that provides workforce data and trends regarding roles of relevance to this Training Package at a national level is Census data collected by the Australian Bureau of Statistics (ABS) and the Department of Jobs and Small Business. The workforce statistics and projections presented in this section are based on Census collections, and are reported according to prescribed Australian and New Zealand Standard Industrial Classification (ANZSIC) and Australian and New Zealand Standard Classification of Occupations (ANZSCO) classifications.

The current definitions, and the labelling used for some ANZSIC and ANZSCO codes, as well as the aggregation of roles across codes, can be limited in providing a true picture of some sectors' workforces. Sectors can host a multitude of job functions, and consequently comprise job titles which go beyond the categories listed in ANZSCO. The statistics in this section are provided as an indicative overview of the sector only.

Job roles covered by the Technicians Support Services Training Package Products are captured across the following ANZSCO category:

- ANZSCO 3112 **Medical Technicians** – representing in aggregate Anaesthetic Technician, Cardiac Technician, Medical Laboratory Technician, Operating Theatre Technician, Pharmacy Technician, Pathology Collector and other Medical Technicians not classified elsewhere.

The health care and social assistance industry employs approximately 1.7 million workers across Australia, making it the largest employing industry in the country.¹⁴ In 2018, there were **26,400** Medical Technicians employed across the industry, noting a fall from the previous year of 4,600 workers (equivalent to a 15% decrease) (see **Figure 2**).



Source: Department of Jobs and Small Business - Job Outlook, Medical Technicians ANZSCO 3112, accessed 17 December 2018

¹⁴ Australian Government Department of Jobs and Small Business (2018) *Labour Market Information Portal – Health Care and Social Assistance*. Retrieved from: <http://lmip.gov.au/default.aspx?LMIP/GainInsights/IndustryInformation/HealthcareandSocialAssistance> [Viewed 19 December 2018]

Key traits of the Medical Technicians' workforce are:¹⁵

- **Average age** - 40 years (on par with the national job average of 40 years)
- **Gender** – 74% female (significantly higher than the national job average of 47%)
- **Location** – 35.6% in Victoria, 28.5% in New South Wales, 13.2% in Queensland, 11.7% in Western Australia, 7.9% in South Australia, 1.3% in Tasmania, 1.1% in the ACT and less than 1% in the Northern Territory.

Furthermore, in terms of jobs representative of the sector to which the Health Administration qualifications are applicable, in 2016–17 there were **64,858** full-time administrative and clerical staff working in public hospitals (a 51% increase since 2012–13)¹⁶ and **10,210** working in private hospitals across Australia.¹⁷

Regarding optical dispensing jobs, the Australian Bureau of Statistics (ABS) last reported in 2011 that there were **4,481** optical dispensers across Australia.¹⁸ Since then it has been difficult to estimate the number of optical dispensers due to deregulation and contributions from informal workplace training. However, the Australian Dispensing Opticians Association (ADOA) estimated in 2015 that there were approximately **2,400** qualified optical dispensers, based on the most current regulated numbers, graduate numbers and registrations to health funds/industry bodies at that time.¹⁹

Overall, the **Health Care and Social Assistance industry workforce is expected to grow significantly** over the next five years, with forecasts indicating it will reach 1.9 million workers in 2023. This growth will undoubtedly include many job roles supported by this Training Package as sectors of relevance.

For the job roles where specific data is available, it shows that **minimal employment growth is forecast for Medical Technician** roles over the next five years, with estimates indicating employment in 2023 will be **26,500** (representing less than a 1% increase from 2018) (see **Figure 3**). Instead, growth is expected in job roles across the **medical services** and **pathology and diagnostic imaging** sectors, with a respective increase of 4.9% to **54,400** workers and 13.6% to **203,000** workers by 2023.²⁰

¹⁵ Department of Jobs and Small Business - Job Outlook, *Medical Technicians ANZSCO 3112*, <https://joboutlook.gov.au/Occupation.aspx?search=Career&code=3112>, accessed 17 December 2018

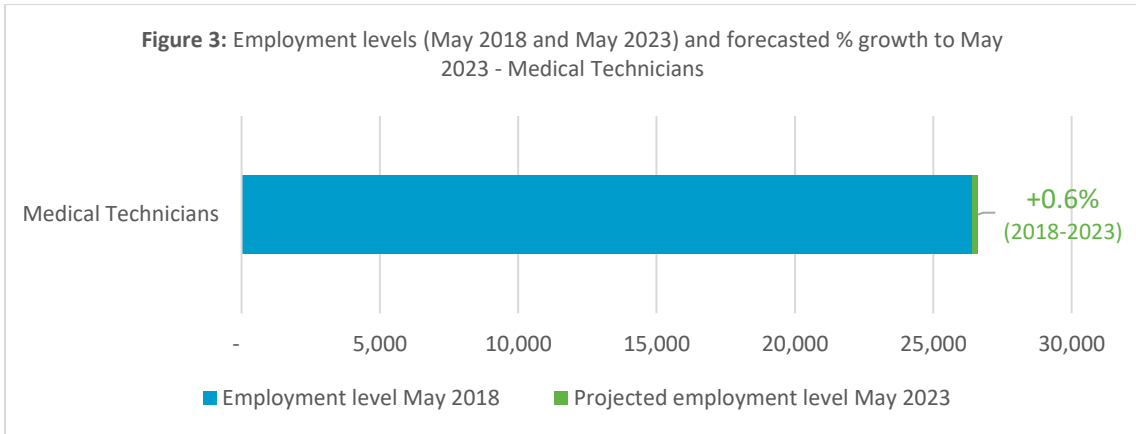
¹⁶ Australian Institute of Health and Welfare (2018) *Hospital resources 2016–17: Australian hospital statistics*. Retrieved from: <https://www.aihw.gov.au/reports/hospitals/ahs-2016-17-hospital-resources/contents/table-of-contents>.

¹⁷ ABS (2018) *Private Hospitals, Australia, 2016–17*, cat no. 4390.0

¹⁸ Australian Institute of Health and Welfare (2016) *Eye health workforce in Australia*. Retrieved from: <https://www.aihw.gov.au/getmedia/82b0922e-0744-459b-9b9e-5c019bdf6b3f/19296.pdf.aspx?inline=true>. [Viewed 24 January 2019]

¹⁹ Mivision (2016) *Optical dispenser numbers disputed*. Retrieved from: <https://www.mivision.com.au/2016/07/optical-dispenser-numbers-disputed/>. [Viewed 24 January 2019]

²⁰ Australian Government Department of Jobs and Small Business (2018) *Industry Projections – five years to May 2023* [Viewed 2 January 2019]



Source: Department of Jobs and Small Business - 2018 Occupational Projections – five years to May 2023, accessed November 2018

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Future Skills

Note: These findings are based on desk research as well as SkillsIQ's 2019 Future Skills Survey (conducted between November 2018 and January 2019) which has been filtered to include stakeholders from the Health Care, Social Assistance and Community Services industries only. Insights and advice from IRC members have also been used to compile and validate the information provided.

The work environment across all industries is continuously evolving to adapt to external and internal industry trends. Technology, automation, Artificial Intelligence (AI), globalisation, an ageing population, shifts in workforce demographics and industry (i.e. transition from manufacturing and production to a largely service-based economy)²¹ are just some of the ongoing trends driving change.

The technicians support services sector, like others, has been impacted by these trends and, as a result, so too have the skills needs of the workforce. Whilst technical skills to perform job tasks are imperative, employers in the short-to-medium future will be looking beyond these and have indicated that it will be important for workers in their organisation to be **equipped with key soft skills**:



These results are in line with wider studies, including the World Economic Forum and its *Future of Jobs Survey 2018* which indicates that the top 10 skills in the highest demand in 2022 will include **analytical thinking** and **innovation, creativity, originality** and **initiative, critical thinking, complex problem-solving, leadership** and **emotional intelligence**.²²

The VET system plays a pivotal role in supporting employers and employees to adapt to technologies and changes in the workplace. Its role in skilling the workforce with current and emerging skills needs will only grow more strongly in the future as it continues to support individuals to enter the workplace or transition into different roles.²³

²¹ Payton, A, Knight, G, 2018, *Skills for a global future*, NCVER, Adelaide. [Available at https://www.ncver.edu.au/data/assets/pdf_file/0041/3179885/Skills-for-a-global-future.pdf]

²² World Economic Forum (2018) *The Future of Jobs Report 2018*, Centre for the New Economy Society. Switzerland [Available at: http://www3.weforum.org/docs/WEF_Future_of_Jobs_2018.pdf]

²³ Innovation and Science Australia 2017, *Australia 2030: prosperity through innovation*, Australian Government, Canberra.

Key Generic Skills – Ranked in Order of Importance

The 12 generic skills listed below, including the descriptors, were provided by the Department of Education and Training for the purpose of being ranked by industry representatives. For the 2019 ranking exercise, an 'Other' generic skill option was included in the list to capture any additional key skills considered important for an industry. Please note that, in this case, no other generic skills were identified.

1	Communication / Collaboration including virtual collaboration / Social intelligence - Ability to understand and apply the principles of creating more value for customers with fewer resources (lean manufacturing) and collaborative skills. Ability to critically assess and develop content that uses new media forms and leverage these media for persuasive communications. Ability to connect to others in a deep and direct way, to sense and stimulate reactions and desired interactions.
2	Language, Literacy and Numeracy (LLN) - Foundation skills of literacy and numeracy.
3	Technology use and application skills - Ability to create and/or use technical means, understand their interrelation with life, society, and the environment. Ability to understand and apply scientific or industrial processes, inventions, methods etc. Ability to deal with increasing mechanisation and automation and computerisation. Ability to do work from mobile devices rather than from paper.
4	Learning agility / Information literacy / Intellectual autonomy and self-management - Ability to identify a need for information. Ability to identify, locate, evaluate, and effectively use and cite the information. Ability to discriminate and filter information for importance. Ability to do more with less. Ability to quickly develop a working knowledge of new systems to fulfil the expectations of a job.
5	Science, Technology, Engineering and Maths (STEM) - Sciences, mathematics and scientific literacy.
6	Design mindset / Thinking critically / System thinking / Solving problems - Ability to adapt products to rapidly shifting consumer tastes and trends. Ability to determine the deeper meaning or significance of what is being expressed via technology. Ability to understand how things that are regarded as systems influence one another within a complete entity, or larger system. Ability to think holistically.
7	Customer service / Marketing - Ability to interact with other human beings, whether helping them find, choose or buy something. Ability to supply customers' wants and needs both via face-to-face interactions or digital technology. Ability to manage online sales and marketing. Ability to understand and manage digital products.
8	Managerial / Leadership - Ability to effectively communicate with all functional areas in the organisation. Ability to represent and develop tasks and work processes for desired outcomes. Ability to oversee processes, guide initiatives and steer employees toward achievement of goals.
9	Environmental and Sustainability - Ability to focus on problem solving and the development of applied solutions to environmental issues and resource pressures at local, national and international levels.
10	Data analysis skills - Ability to translate vast amounts of data into abstract concepts and understand data-based reasoning. Ability to use data effectively to improve programs, processes and business outcomes. Ability to work with large amounts of data: facts, figures, number crunching, analysing results.
11	Financial - Ability to understand and apply core financial literacy concepts and metrics, streamlining processes such as budgeting, forecasting, and reporting, and stepping up compliance. Ability to manage costs and resources, and drive efficiency.
12	Entrepreneurial - Ability to take any idea, whether it be a product and/or service, and turn that concept into reality and not only bring it to market, but make it a viable product and/or service. Ability to focus on the very next step to get closer to the ultimate goal.

A.3 Key Drivers for Change and Proposed Responses Overview

Key Drivers

The health care and social assistance industry is expected to grow significantly over the next five years. Hundreds of thousands of jobs will need to be filled by skilled workers. Some examples of forecast employment growth include:²⁴

- Pathology and diagnostic imaging – an additional 203,000 workers by 2023
- Medical services – an additional 54,500 workers, and
- Anaesthetists – an additional 900 workers.²⁵

The technicians support services industry faces several challenges. The goal for health support workers is an effective, efficient and safe patient management system.

Technicians need to adhere to practical and educational responsibilities, in terms of standards and protocols, workplace health and safety, infection control, maintenance, legal responsibilities including maintaining confidentiality, and the use of specialist equipment such as ultrasound.

The health industry is continuously evolving with the ongoing employment of innovative digital technologies. There is a need for health professionals in the sector to take up professional development to advance their skills and knowledge in new ideas and techniques. Scopes of practice to which this need applies include therapeutics, invasive techniques, emergency care, post-operative care and anaesthetic techniques.

There is also an emerging focus on non-technical skills in this sector, including communication, cultural competence, working in a team environment and situational awareness.

The technicians support services industry is challenged by the ageing population, skills shortages due to digital transformations, and staff retention. Workers are not equipped with the necessary skills and knowledge due to fast-paced changes in the standards and protocols utilised in the health sector. There is a strong need to update qualifications that have a direct impact on the patient journey.

Proposed Responses

The Technicians Support Services IRC has identified that **anaesthetic technology** is an area of concern that has a direct impact on stakeholders and for which there is a strong need for review.

The IRC proposes to update the *HLT57915 Diploma of Anaesthetic Technology* qualification and any associated skill sets and Units of Competency relating to anaesthetic technology job roles.

This qualification was released in 2015 and, since then, there have been extensive changes in this scope of practice in terms of standards and protocols, new ideas and techniques, digital technologies and terminology used within the discipline of anaesthetics. Therefore, the qualification needs to reflect current industry practice and knowledge to equip existing and new workers, so that they can

²⁴ Australian Government Department of Jobs and Small Business (2018) *Industry Projections – five years to May 2023* [Accessed 2 January 2019]

²⁵ Department of Jobs and Small Business, Job Outlook, *ANZSCO 2532 Anaesthetists*, Retrieved from: <https://joboutlook.gov.au/occupation.aspx?code=2532> [Viewed 4 February 2019]

perform their job roles in an efficient and effective manner providing for safe patient management in the anaesthetics sub-sector.

Several key risks have been identified and are tabled below in the event the update of the Training Package Products (in line with the articulated needs of industry) is **not** actioned.

Stakeholder	Risk of no change
Employers	<p>As defined by industry, it is critical for employers to have access to a skilled workforce and qualifications that support the delivery of the required skills and knowledge.</p> <p>Industry and employers would greatly benefit from strengthened qualifications to address current skills gaps and a clearly identified training pathway.</p> <p>The risk of not implementing the changes recommended is that workers will not possess the relevant skills and knowledge required by employers. The cost of training workers who are not qualified adds to the expense on tight budgets that employers are reluctant to allot in tough economic times.</p>
Employees	<p>Current employees need to regularly demonstrate evidence of professional development in terms of keeping informed on current industry trends, legislation, policy and practices acceptable in the industry.</p> <p>New employees entering the industry need to be able to identify clear pathways and view guidelines on future professional development opportunities.</p> <p>The risk of no change will lead to stationary qualifications with outdated knowledge and skill requirements that will disadvantage employees and lead to a decline in the uptake of the qualifications.</p>
Students	<p>Students will benefit from improved clarity and updated Training Products that industry confirms reflect the current skills and knowledge required for job roles in the sector.</p> <p>The risk of no change is that students may graduate with inadequate skills and knowledge to effectively support the sector and therefore their employability may be compromised.</p>
Training Providers	<p>Training Product updates will improve opportunities for training providers to partner with industry to provide training plans that are better aligned to job outcomes.</p> <p>Although changes to Units of Competency and qualifications create flow-on impacts and costs for RTOs in relation to administrative systems, training resources and assessment materials, a positive impact for all RTOs will be improved clarity around training outcomes and assessment expectations.</p> <p>Stagnant Training Products lead to training that does not match current industry needs. Training delivery in terms of both quality and reputation is highly likely to be compromised if there is no industry practice update.</p>

A.4 Consultation Undertaken

A widespread **multichannel consultation** involving the following stakeholders has been conducted to identify and substantiate the key skills gaps and training needs of the sector, and to determine whether or not there is a need to update the respective Training Package Products:

- All Technicians Support Services Industry Reference Committee (IRC) members representing the following key bodies:
 - Australian Anaesthesia Allied Health Practitioners (AAAHP)
 - Australian Nursing and Midwifery Federation
 - Australian Private Hospitals Association
 - Department of Health, Workforce Planning & Development
 - Federation of Sterilizing Research and Advisory Councils of Australia (FSRACA)
 - Fiona Stanley Hospital
 - Health Industry Training
 - Health Services Union (HSU)
 - Royal College of Pathologists of Australasia
 - Society of Hospital Pharmacists of Australia (SHPA)
 - Sonic Healthcare
 - TAFE NSW, Sydney
- Networks of the Technicians Support Services IRC members
- A national online survey distributed via the SkillsIQ database between November 2018 and January 2019 that sought to identify top skills needs and priority industry issues
- Public consultation on the draft Industry Skills Forecast to be publicised to over 17,000 stakeholders registered in SkillsIQ's database network
- The Industry Skills Forecast, including the Proposed Schedule of Work, to be promoted to stakeholders and made available via SkillsIQ's website.

A full list of stakeholders is supplied at **Appendix A**.

B. Proposed Schedule of Work

2019–20

Year	Project Title and Descriptor
2019–20	<p>Anaesthetic Technology The IRC proposes to update the following qualification and any associated skill sets and Units of Competency relating to anaesthetic technology job roles:</p> <ul style="list-style-type: none"> • HLT57915 Diploma of Anaesthetic Technology

2020–21

Year	Project Title and Descriptor
2020–21	<p>Sterilisation Services The IRC proposes to update the following qualifications and any associated skill sets and units of competency relating to sterilisation job roles:</p> <ul style="list-style-type: none"> • HLT37015 Certificate III in Sterilisation Services • HLT47015 Certificate IV in Sterilisation Services
2020–21	<p>Pathology The IRC proposes to update the following qualifications and any associated skill sets and units of competency relating to pathology job roles:</p> <ul style="list-style-type: none"> • HLT37215 Certificate III in Pathology Collection • HLT37415 Certificate III in Pathology Assistance
2020–21	<p>Medical Practice Assisting and Management The IRC proposes to update the following qualifications and any associated skill sets and units of competency relating to medical practice management job roles:</p> <ul style="list-style-type: none"> • HLT47715 Certificate IV in Medical Practice Assisting • HLT57715 Diploma of Practice Management
2020–21	<p>Audiometry The IRC proposes to update the following qualifications and any associated skill sets and units of competency relating to audiometry job roles:</p> <ul style="list-style-type: none"> • HLT47415 Certificate IV in Audiometry • HLT57415 Diploma of Audiometry
2020–21	<p>Operating Theatre Technical Support The IRC proposes to update the following qualification and any associated skill sets and units of competency relating to operating theatre technical support job roles:</p> <ul style="list-style-type: none"> • HLT47515 Certificate IV in Operating Theatre Technical Support
2020–21	<p>Cardiac Technology The IRC proposes to update the following qualification and any associated skill sets and units of competency relating to cardiac technology job roles:</p> <ul style="list-style-type: none"> • HLT47615 Certificate IV in Cardiac Technology

Optical Dispensing

The IRC proposes to update the following qualification and any associated skill sets and units of competency relating to optical dispensing job roles:

- HLT47815 Certificate IV in Optical Dispensing

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C. 2019–20 Project Details

Project 1 – Anaesthetic Technology	
Description:	<p>The IRC proposes to update the following qualification and any units of competency relating to anaesthetic technology job roles:</p> <ul style="list-style-type: none"> • HLT57915 Diploma of Anaesthetic Technology
Rationale:	<p>Consultation with stakeholders indicated that this Diploma is the enabler to transform students into highly trained health care workers, implementing frontline patient-centred care. The public expects these workers to be trained to the latest standards and recommendations.</p> <p>From 2014–2018, the number of medical practitioners specialising in anaesthesia have experienced an overall growth rate of 14%, from 4,485 to 5,114 workers.²⁶ Over the next five years, anaesthetist job roles are expected to grow by a further 17.3% to 6,000 jobs²⁷, with anaesthetic assistant job roles likely to follow a similar trend.</p> <p>Health care, and specifically the anaesthesia environment, is continuously evolving. There are constant refinements to established procedures and ground-breaking changes with the introduction of new ideas and techniques.</p> <p>One of the primary reference documents that underpins this is <i>ANZCA PS08 – Statement on the Assistant for the Anaesthetist</i>, which was significantly revised shortly after the 2015 version of the <i>HLT57915 Diploma of Anaesthetic Technology</i> was launched.</p> <p>As an example, the algorithm for one life-threatening scenario facing anaesthetists has changed from “Can’t Intubate, Can’t Ventilate” to “Can’t Intubate, Can’t Oxygenate (CICO)”. Whilst this may seem a minor change to the layperson, to a medical professional such as an anaesthetist it is imperative that the assistant understands and is able to converse in the appropriate terminology and, more importantly, is familiar with the algorithm.</p> <p>In summary, key changes proposed include:</p> <p>→ A thorough review of content, language, and terminology used across all the Training Package Products (e.g. Units of Competency and Skills Sets).</p>
Ministers' Priorities Addressed:	<p>This project is an opportunity to support the Council of Australian Governments (COAG) Industry and Skills Council to specifically address the following priorities:</p> <ul style="list-style-type: none"> • Obsolete Training Package Products to be identified and removed from the system, where possible. • Industry expectations for training delivery and assessment to be identified via the Companion Volume Implementation Guide. • Portability of skills between occupations, such as being employed in public or private hospitals and/or day surgery centres, to be enhanced. • Industry notes the specific nature of the role of Anaesthetic Technicians. Any unnecessary duplication to therefore be removed from the Training Package. • Skill sets which can enhance the flexibility of the Training Package to be identified.
Consultation Plan:	<p>National peak bodies, key industry players, as well as broader stakeholders across the sector (e.g. employers) will be consulted throughout the course of the project. National industry consultation will also be conducted via face-to-face workshops, webinars, surveys and one-on-one interviews, and there will be opportunities for all interested parties to provide comments online via the SkillsIQ Online Feedback Forum.</p>

²⁶ Medical Board of Australia, *Various registrant data, December 2014-2018*. Retrieved from: <https://www.medicalboard.gov.au/news/statistics.aspx> [Viewed 4 February 2019]

²⁷ Department of Jobs and Small Business, *Job Outlook, ANZSCO 2532 Anaesthetists*, Retrieved from: <https://joboutlook.gov.au/occupation.aspx?code=2532> [Viewed 4 February 2019]

Scope of Project Overview - Timing:	Estimated duration: 9 months A detailed project plan outlining key dates will be developed and aligned to the Activity Order date once known.
Summary of components: <ul style="list-style-type: none"> • Training Package/s to be Developed/Updated: One [HLT Health Training Package] • Qualification/s to be Developed/ Updated: One (1) • Skill Set/s to be Developed/ Updated: Nil • Unit/s of Competency to be Developed/Updated: Seven (7) <ul style="list-style-type: none"> ○ HLTANA001 Prepare clients for anaesthesia ○ HLTANA002 Monitor clients during anaesthesia ○ HLTANA003 Assist with airway management ○ HLTANA004 Respond to anaesthesia-related emergencies ○ HLTANA005 Maintain quality and supply of anaesthetic equipment and consumables ○ HLTANA006 Assist with clinical procedures used in anaesthesia ○ HLTANA007 Monitor medications in the anaesthetic environment. 	

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Appendix A: Stakeholder Consultation

Name of Stakeholder	Organisation	Jurisdiction
Technicians Support Services IRC member		
Tony Badrick (Chair)	Royal College of Pathologists of Australasia	NSW
Karyn Calcino	Health Industry Training	QLD
Alma Cassells	Fiona Stanley Hospital	WA
Jodie Davis	Australian Nursing and Midwifery Federation	ACT
Lorah Hickman	Society of Hospital Pharmacists of Australia (SHPA)	VIC
Kim Lally	Australian Private Hospitals Association	ACT
Tamara Lee	Department of Health, Workforce Planning & Development	NSW
Jane O'Keefe	Sonic Healthcare	NSW
Elinor Radke	Federation of Sterilizing Research and Advisory Councils of Australia (FSRACA)	QLD
Athanasia (Soula) Siafakas	TAFE NSW, Sydney	NSW
Leigh Svendsen	Health Services Union (HSU)	VIC
Vicki Swaine	Australian Anaesthesia Allied Health Practitioners	QLD