

2019

# AMBULANCE AND PARAMEDIC

INDUSTRY REFERENCE COMMITTEE  
INDUSTRY SKILLS FORECAST



**SKILLSIQ**

CAPABLE PEOPLE MAKE CLEVER BUSINESS

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# Executive Summary

The Ambulance and Paramedic industry, as supported by the relevant Vocational Education and Training (VET) sector's Training Package Products, delivers fundamental pre-hospital and out-of-hospital care services. Services can be provided in both emergency and non-emergency scenarios, and workers in the sector carry out important roles in terms of injury/illness prevention, health promotion and the determination of patients' long-term outcomes. The Ambulance and Paramedic Training Package Products include seven qualifications that support pathways to employment in various job roles across the sector.

The Productivity Commission's *Report on Government Services - Ambulance Services* shows that, in 2017–18, the total Full-time Equivalent (FTE) salaried workforce in ambulance services was 17,883, of whom 81% were in operative ambulance roles and 19% were in corporate and operational support roles. Volunteering is a significant practice across the industry and, again in 2017–18, 6,600 volunteers were involved in ambulance services, with the majority (92%) active in operational roles rather than administrative or support function areas.

The sector supported by the Ambulance and Paramedic Training Package has been experiencing several challenges which are impacting workforce skills requirements, including:

- Skills shortages and the need to consider work-integrated learning to better transition graduates into practice
- Maximising the wellbeing and resilience of the workforce
- Low retention of staff

- Government policy/legislative changes and the impact the National Registration and Accreditation Scheme will have on the future workforce
- An ageing population and an increased demand for services.

There is no Training Package Product development work proposed for 2019–2020. However, work is currently being conducted to update one skill set, seven qualifications and 14 Units of Competency in the Ambulance and Paramedic Training Package.

Note: The National Schedule details the Training Package update and development work commissioned by the Australian Industry and Skills Committee (AISC). The National Schedule is informed by this Industry Skills Forecast, which outlines the proposed timing for the update of existing Training Package Products. This Forecast has been compiled using a number of information sources, including academic literature, statistical data, Industry Reference Committee (IRC) member input and expertise, feedback received via public consultation, SkillsIQ's *2019 Future Skills Survey*, and an industry analysis of both new and emerging workforce skills needs overseen by the Ambulance and Paramedic IRC.

# Administrative Information

## Industry Reference Committee (IRC)

### Ambulance and Paramedic

The Ambulance and Paramedic 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. These sectors involve a wide range of roles in the delivery of fundamental pre-hospital and out-of-hospital health care services across the community.

## Skills Service Organisation (SSO)

### SkillsIQ Limited

SkillsIQ supports 19 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
- Disability 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 provider, 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 Ambulance and Paramedic Industry Reference Committee.

**Alan Morrison,  
Chair**

# A. Skills Forecast

## A.1 Sector Overview

### Introduction

The Ambulance and Paramedic Training Package Products cover an array of roles across the community that deliver fundamental **pre-hospital** and **out-of-hospital health care services**<sup>1</sup>. Pre-hospital/out-of-hospital health care services can involve emergency and non-emergency scenarios which play a critical role in injury/illness prevention and health promotion.<sup>2</sup> Care and support services can include the provision of urgent pre-hospital and out-of-hospital patient **clinical care**, as well as conducting **patient assessments** and prioritising patient care in accordance with national and jurisdiction-based clinical practice guidelines. The level of primary care provided by pre-hospital and out-of-hospital health care services can in some cases determine the long-term

outcome of a patient, successfully minimise the need for treatment, and consequently help to minimise the demand for hospital and health care provider facilities.

### MEDICAL DICTIONARY DEFINITIONS

**Pre-hospital:** Any initial medical care given to an ill or injured patient by a paramedic or other person before the patient reaches the hospital emergency department.

**Out-of-hospital:** A term used in emergency medicine to mean “in the field”, “in the community”, “at the patient’s home or workplace”, or “pre-hospital”. Assessments performed, and treatments given in an out-of-hospital context often stabilise a patient or initiate critically needed care.

Figure 1: Examples of roles and functions supported by the various Ambulance and Paramedic Training Package Products

Certificate II in Medical Service First Response	Certificate III in Ambulance Communications (Call-taking)	Certificate IV in Ambulance Communications (Dispatch)	Diploma in Paramedical Science
<p><b>Example of roles:</b></p> <ul style="list-style-type: none"> <li>First Responder / First Medical Response Worker</li> <li>Volunteer (providing initial care at an event, palliative care service, direct client care service, etc)</li> </ul> <p><b>Example of functions:</b></p> <ul style="list-style-type: none"> <li>Check physical health status (prior to health intervention)</li> <li>Provide First Aid</li> <li>Carry out routine tasks using medical terminology</li> <li>Understand state/territory WHS legislation, codes or practice and industry standards</li> </ul>	<p><b>Example of role:</b></p> <ul style="list-style-type: none"> <li>Call-taker</li> </ul> <p><b>Example of functions:</b></p> <ul style="list-style-type: none"> <li>Respond to requests for ambulance services</li> </ul>	<p><b>Example of roles:</b></p> <ul style="list-style-type: none"> <li>Emergency Medical Dispatch (EMD)</li> <li>Ambulance Dispatch Officer</li> </ul> <p><b>Example of functions:</b></p> <ul style="list-style-type: none"> <li>Respond to routine and emergency incident calls and enquiries</li> <li>Quickly determine call authenticity, potential danger of caller and location</li> <li>Communicate with patient and health professionals in complex situations</li> <li>Use radio networks</li> </ul>	<p><b>Example of roles:</b></p> <ul style="list-style-type: none"> <li>Paramedic Assistant</li> <li>Emergency Medical Responder</li> <li>Ambulance Officer</li> </ul> <p><b>Example of functions:</b></p> <ul style="list-style-type: none"> <li>Patient assessment (prior to health intervention)</li> <li>Assess environment and communicate with all involved, including other services and networks if necessary</li> <li>Provision of treatment / delivery of clinical care</li> <li>Transport patient under non-emergency and emergency conditions</li> <li>Provide mentoring to staff delivering clinical care</li> </ul>
	<p><b>Certificate III in Non-Emergency Patient Transport</b></p> <p><b>Example of role:</b></p> <ul style="list-style-type: none"> <li>Non-emergency Patient Transport Officer</li> </ul> <p><b>Example of functions:</b></p> <ul style="list-style-type: none"> <li>Make initial incident and patient assessment</li> <li>Transport non-emergency patient and related tasks</li> </ul>		
	<p><b>Certificate III in Basic Health Care</b></p> <p><b>Example of roles:</b></p> <ul style="list-style-type: none"> <li>First Responder in Health Care</li> <li>Medical Assistant</li> </ul> <p><b>Example of functions:</b></p> <ul style="list-style-type: none"> <li>Plan pre-hospital/out-of-hospital patient care</li> <li>Provide basic life support</li> </ul>	<p><b>Certificate IV in Health Care</b></p> <p><b>Example of roles:</b></p> <ul style="list-style-type: none"> <li>Ambulance Officer</li> <li>Patient Transport Officer</li> <li>Basic Life Support Medic</li> <li>Industrial Medics</li> </ul>	

Source: Training.gov.au

Note: Descriptions of functions and roles have been extracted from qualification specifications published at training.gov.au

## 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. According to the latest IBISWorld industry statistics, in 2017-2018 there were 52 ambulance businesses that were described as predominantly providing pre-hospital ambulance services for emergency, non-emergency and urgent responses.<sup>3</sup> Examples of other relevant business types involved in hiring workers supported by the Ambulance and Paramedic Training Package Products across Australia include:<sup>4</sup>

- National/state/territory governments (i.e. the main funders of ambulance services and Non-Emergency Patient Transport (NEPT))
- Non-Emergency Patient Transport (NEPT) providers
- Medical and allied health care service providers – hospitals, private medical centres, community health centres, mental health centres, aged care homes, rehabilitation centres, etc.
- Out-of-hospital service providers.

## Stakeholders

Key stakeholders represent a range of organisations that perform a variety of strategic, regulatory and operational roles in the pre-hospital and out-of-hospital health care 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 above)
- Employee associations
- Registered Training Organisations (RTOs), both public and private and their representative bodies
- Small, medium and large 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 have been filtered to include stakeholders from the Ambulance and Paramedic industries only. Insights and advice from IRC members have also been used to compile and validate the information provided.

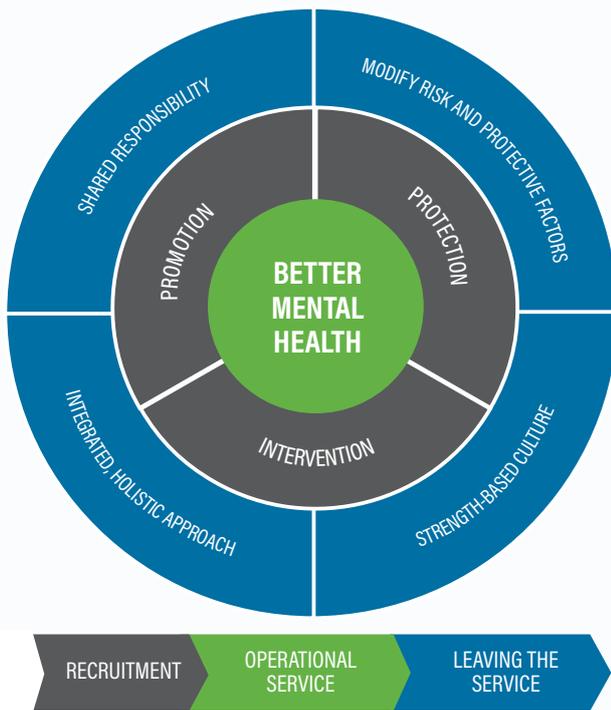
### Skills shortages

The transition to practice can be difficult for graduates of the Ambulance and Paramedic Training Package Products. There is currently not nearly enough apprenticeship training in the sector. In the quarter ending September 2018, there was only one reported completed apprenticeship nationally among all the students who used the Ambulance and Paramedic Training Package Products.<sup>5</sup> Exposure to the workplace environment is more commonly gained through experiences such as volunteering, traineeships and on-the-job training. To ease the transition into practice for Ambulance and Paramedic Training Package graduates, it would be productive to consider work placement during study to establish job-related foundational knowledge and experience before graduates enter the workforce.

### Retention of staff / Wellbeing and Resilience of Workforce

The nature of providing pre-hospital and out-of-hospital health care services involves a range of everyday stressors such as long hours on shift-work schedules, possible heavy workloads and physically demanding and emotionally challenging shifts. In addition to these relatively common workplace risks, ambulance service-related roles are often the first to respond to an emergency or communicate with distressed patients. Due to these interactions, individuals in ambulance service-related roles have an increased risk of being repeatedly exposed to traumatic events, such as death or violence,<sup>6</sup> which can trigger increases in workplace stress and can undermine individuals' resilience. These experiences can either have an immediate effect or may build up over weeks, months or years.

**Figure 2:** Good practice model for mental health and wellbeing in first responders organisations



With the support of the Commonwealth Department of Health, *beyondblue* has established a “good practice framework for mental health and wellbeing in first responder organisations” in relation to workplace conditions and addressing workforce issues including suicide (see Figure 2). Core elements of the framework focus on training and development for management and staff. They include education and training from recruitment right through to retirement, pre-trauma education and training, and a broad range of mental health topics.

Other relevant initiatives that address mental health in this sector include:

- *beyondblue's National Mental Health and Wellbeing Study of Police and Emergency Services*, which involves developing strategies to improve the mental health of police and emergency services workers and volunteers. The study commenced in 2017 and aimed to survey up to 20,000 current and former personnel to better

measure the extent of the mental health concerns in the workforce.<sup>7</sup>

- NSW Government’s *Mental Health and Wellbeing Strategy for First Responder Organisations in NSW*, which outlines key strategies to reduce barriers to first responders seeking help, including mental health and wellbeing education in first responder organisations.

The importance of training first responders to develop a range of skills to build resilience and cope with the demands of their jobs is paramount, and Training Package Products should evolve with the strategies as outlined in these good practice frameworks to maximise workforce wellbeing.

#### Government policy / legislation changes

The pre-hospital and out-of-hospital health care services sector is governed by several national and state and territory-based laws and regulations, each outlining lawful instructions regarding the conduct of employees and management, service delivery and performance, and registration and qualification requirements. The range of legislative instruments includes:

- *Health Practitioner Regulation National Law Act 2009* (with equivalent state and territory adaptations) (‘the National Law’)
- *Ambulance Services Act* (as enacted in each state and territory)
- *Ambulance Services Regulations* (as enacted in each state and territory)
- *Poisons and Therapeutic Acts (state by state)*
- *Health Acts (state by state)*

Although beyond the scope of what the Training Package covers, a recent and significant regulatory change for the sector has been the **national registration of paramedics** as part of the National Registration and Accreditation Scheme (‘the National Scheme’). The Paramedicine Board of Australia was established in October 2017 and, together with the Australian Health Practitioners Regulation Agency (AHPRA), was tasked with developing and establishing registration standards, codes and guidelines. From 1 December 2018 paramedicine became a nationally regulated profession under the Health Practitioner Regulation National Law Act (‘the National Law’) and the

### The aim of the National Registration for Paramedics is to:

- Protect the public by establishing five mandated registration standards (covering criminal history, English language skills, continuing professional development, recency of practice and professional indemnity insurance arrangements)
- Protect the title 'Paramedic' under the National Law
- Enhance national mobility for paramedics
- Make paramedicine a registered health profession which would come under the same national regulation as 15 other professions
- Establish approved programs of study that provide qualifications for registration as a paramedic.

Source: Paramedicine Board of Australia

titles 'paramedic' and 'paramedicine' became protected by law. This means that as of 1 December 2018, only people who are registered with the Paramedicine Board of Australia ('the Board'), or who applied for registration before 1 December 2018 and whose applications are yet to be finalised, are able to lawfully call themselves paramedics.<sup>8</sup> From participation day on 1 December 2018:

- Paramedics are registered nationally for the first time in Australia
- The title 'paramedic' is protected nationally
- Paramedicine is a registered health profession, and
- Paramedic-level qualifications are now subject to the oversight of the Paramedicine Board and the national Paramedicine Accreditation Committee.

Mapping VET qualifications across registration requirements and, more widely, across the post-registration occupational environment is important in order to be able to gain an understanding of the supportive ways in which the Training Package Products can contribute to facilitating career pathways.

### Ageing population

Australia, like most developed nations, is experiencing a long-term ageing of its population. The Australian Bureau of Statistics (ABS) expects the share of people aged 65 or over in Australia will increase by approximately 25% between 2017–2066, from 15% to 21% of the population.<sup>9</sup> The population aged 85 years and over is projected to increase from 2.0% to between 3.6% and 4.4% of the population in 2066.<sup>10</sup> Such substantial changes in the age of the population will certainly put increasing pressures on health services as the prevalence of chronic pain conditions rises. Demand for ambulance services are among the many health services which are expected to significantly increase due to the growing ageing

population and the related trend in favour of senior Australians continuing to live independently in their own homes.<sup>11</sup>

Demand for emergency and non-emergency health care services both in pre-hospital and out-of-hospital settings has been growing steadily, and the latest statistics show 3.5 million patients were assessed, treated or transported by ambulance service organisations from 2017–18.<sup>12</sup> In particular, non-emergency responses have increasingly been transferred to the private sector over the past five years. Notably, the Victorian Government separated emergency and non-emergency ambulance operations into distinct units, which has opened up the market for non-emergency service providers.<sup>13</sup> Overall, private ambulance service providers are forecast to have represented 16.2% of the revenue across the ambulance industry for the 2017–18 period.<sup>14</sup> With the ageing population expected to steadily continue to increase, managing the demand for pre-hospital and out-of-hospital services will be a priority, and will include the need for workforce planning to ensure staff numbers and skills are in line with increasing demand.

### Vocational Education and Training (VET) Qualifications Supporting Industry

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

- HLT21015 Certificate II in Medical Service First Response
- HLT31015 Certificate III in Ambulance Communications (Call-taking)
- HLT31115 Certificate III in Non-Emergency Patient Transport
- HLT31215 Certificate III in Basic Health Care
- HLT41015 Certificate IV in Ambulance Communications (Dispatch)
- HLT41115 Certificate IV in Health Care
- HLT51015 Diploma of Paramedical Science.



**Table 1:** Number of Registered Training Organisations (RTOs) by nationally recognised **Ambulance and Paramedic** qualifications on scope – Ambulance and Paramedic Training Package Products

Qualification Code	Qualification Name	No. of RTOs with Qualification on Scope
HLT21015	Certificate II in Medical Service First Response	24
HLT31015	Certificate III in Ambulance Communications (Call-taking)	6
HLT31115	Certificate III in Non-Emergency Patient Transport	17
HLT31215	Certificate III in Basic Health Care	12
HLT41015	Certificate IV in Ambulance Communications (Dispatch)	7
HLT41115	Certificate IV in Health Care	20
HLT51015	Diploma of Paramedical Science	17

Source: Training.gov.au. RTOs approved to deliver this qualification. Accessed 8 February 2019.

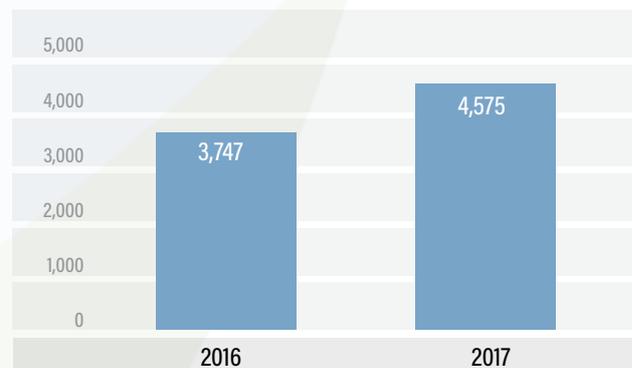
### Enrolments and Completions

In 2017, there were over **4,500 enrolments** across all VET qualifications catered for by the Ambulance and Paramedic Training Package Products. This represents an increase of 22% (equivalent to 828 enrolments) from the previous year (see Figure 3).

The most popular qualifications in 2017 were:

- HLT21015 - Certificate II in Medical Service First Response (1,375 enrolments) and
- HLT51015 – Diploma of Paramedical Science (528 enrolments).

**Figure 3:** Total number of enrolments (Total VET Activity, [TVA]) by nationally recognised qualifications on scope – Ambulance and Paramedic Training Package Products, 2016-2017



Source: NCVET VOCSTATS, Program enrolments 2016-2017

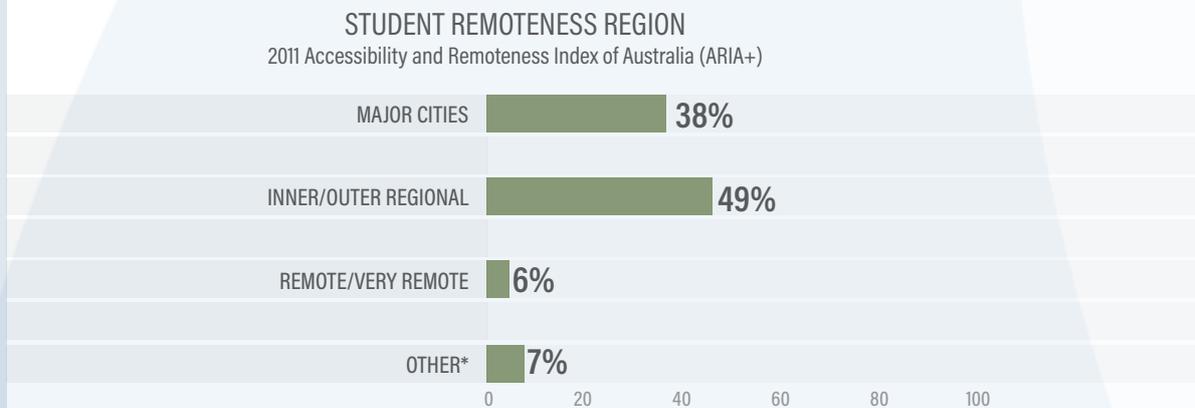
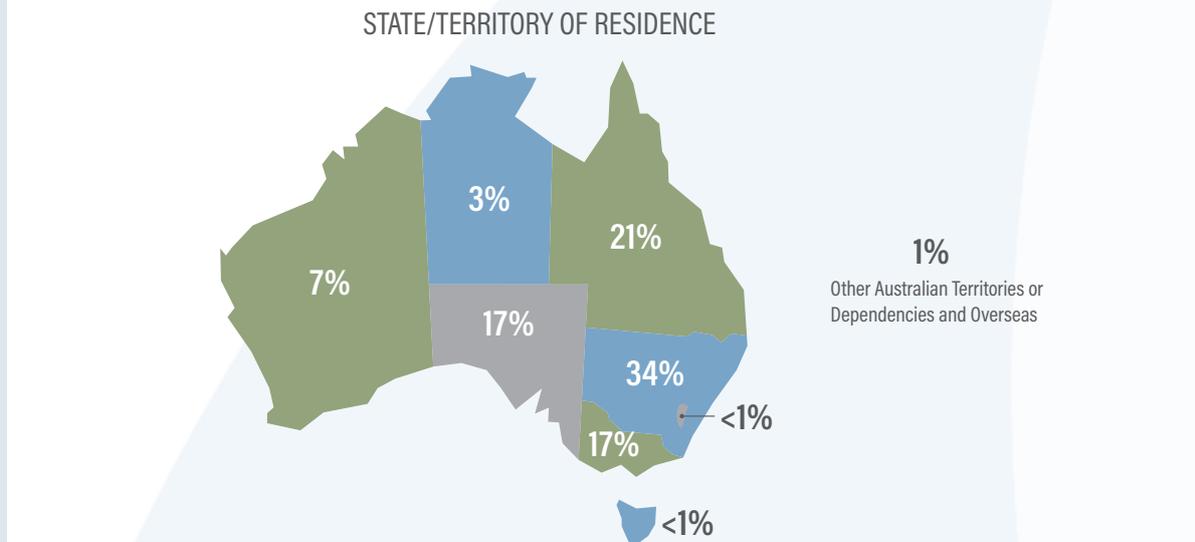
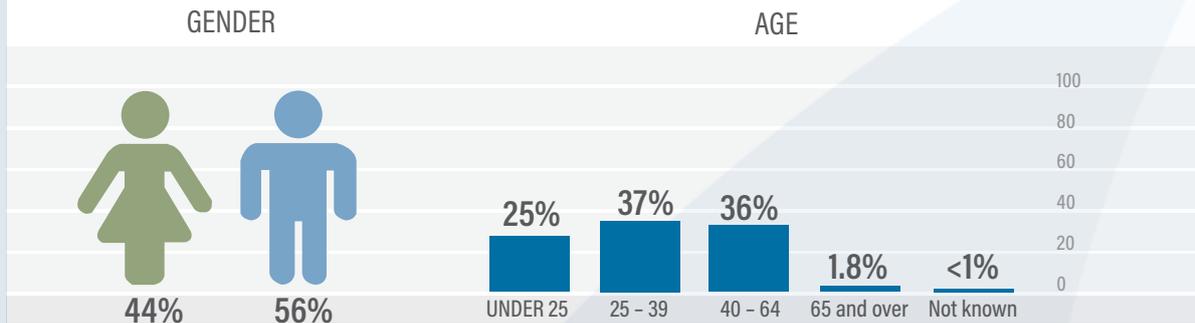
**General notes on statistics:**

1. Enrolment data is sourced from NCVER VOCSTATS (program enrolments 2016 and 2017), accessed October 2018.
2. It is important to note that not all training providers were required to submit enrolment and completion data at the time of collection, and some figures presented may therefore under-represent the true count of enrolments and completions for a qualification. From 2018, **all** training providers were 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. Qualifications in italics represent superseded qualifications.

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

**2017 ENROLMENT SNAPSHOT**

**AMBULANCE AND PARAMEDIC TRAINING PACKAGE PRODUCTS**



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

\*Includes 'Outside Australia' and 'Not known'.

**Table 2:** Total number of enrolments (Total VET Activity [TVA]) by nationally recognised qualifications on scope – Ambulance and Paramedic Training Package Products, 2016 - 2017

Qualification	2016	2017
HLT21015 Certificate II in Medical Service First Response	83	1,375
<i>HLT21112 - Certificate II in Emergency Medical Service First Response</i>	<i>1,202</i>	<i>640</i>
HLT31015 Certificate III in Ambulance Communication (Call-taking)	30	47
<i>HLT31912 - Certificate III in Ambulance Communications (Call-taking)</i>	<i>55</i>	<i>41</i>
HLT31115 Certificate III in Non-Emergency Patient Transport	7	258
<i>HLT30212 - Certificate III in Non-Emergency Client Transport</i>	<i>221</i>	<i>28</i>
HLT31215 Certificate III in Basic Health Care	29	202
<i>HLT33112 - Certificate III in Basic Health Care</i>	<i>242</i>	<i>101</i>
<i>HLT33107 - Certificate III in Basic Health Care</i>	<i>376</i>	<i>347</i>
HLT41015 Certificate IV in Ambulance Communications (Dispatch)	4	88
<i>HLT41112 - Certificate IV in Ambulance Communications</i>	<i>49</i>	<i>23</i>
HLT41115 Certificate IV in Health Care	98	350
<i>HLT41012 - Certificate IV in Health Care (Ambulance)</i>	<i>904</i>	<i>453</i>
HLT51015 Diploma of Paramedical Science	54	528
<i>HLT50412 - Diploma of Paramedical Science (Ambulance)</i>	<i>388</i>	<i>91</i>

Source: NCVET VOCSTATS, accessed October 2018.

**Table 3:** Total number of completions (Total VET Activity [TVA]) by nationally recognised qualifications on scope – Ambulance and Paramedic Training Package Products, 2016 - 2017

Qualification	2016	2017
HLT21015 Certificate II in Medical Service First Response	121	641
<i>HLT21112 - Certificate II in Emergency Medical Service First Response</i>	<i>519</i>	<i>208</i>
HLT31015 Certificate III in Ambulance Communication (Call-taking)	17	43
<i>HLT31912 - Certificate III in Ambulance Communications (Call-taking)</i>	<i>23</i>	<i>15</i>
HLT31115 Certificate III in Non-Emergency Patient Transport	0	136
<i>HLT30212 - Certificate III in Non-Emergency Client Transport</i>	<i>139</i>	<i>13</i>
HLT31215 Certificate III in Basic Health Care	16	115
<i>HLT33112 - Certificate III in Basic Health Care</i>	<i>112</i>	<i>22</i>
<i>HLT33107 - Certificate III in Basic Health Care</i>	<i>2</i>	<i>0</i>
HLT41015 Certificate IV in Ambulance Communications (Dispatch)	2	35
<i>HLT41112 - Certificate IV in Ambulance Communications</i>	<i>27</i>	<i>0</i>
HLT41115 Certificate IV in Health Care	19	132
<i>HLT41012 - Certificate IV in Health Care (Ambulance)</i>	<i>249</i>	<i>213</i>
HLT51015 Diploma of Paramedical Science	2	170
<i>HLT50412 - Diploma of Paramedical Science (Ambulance)</i>	<i>286</i>	<i>74</i>

Source: NCVET VOCSTATS, accessed October 2018.

## A.2 Employment and Skills Outlook Overview

### Employment – Current and Projected

Note: The principal data sources that provide workforce data and trends regarding roles of relevance to this Training Package at a national level are Census data collected by the Australian Bureau of Statistics (ABS) and the Department of Jobs and Small Business and the Productivity Commission's Report on Government Services - Ambulance Services. Some of the 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 classifications (ANZSCO).

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. For example, employment data for ambulance officers is currently reported jointly with that for paramedics and categorised under the ANZSCO occupation code **4111: Ambulance Officers and Paramedics**. Sectors can host a multitude of job functions, and consequently be comprised of 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.

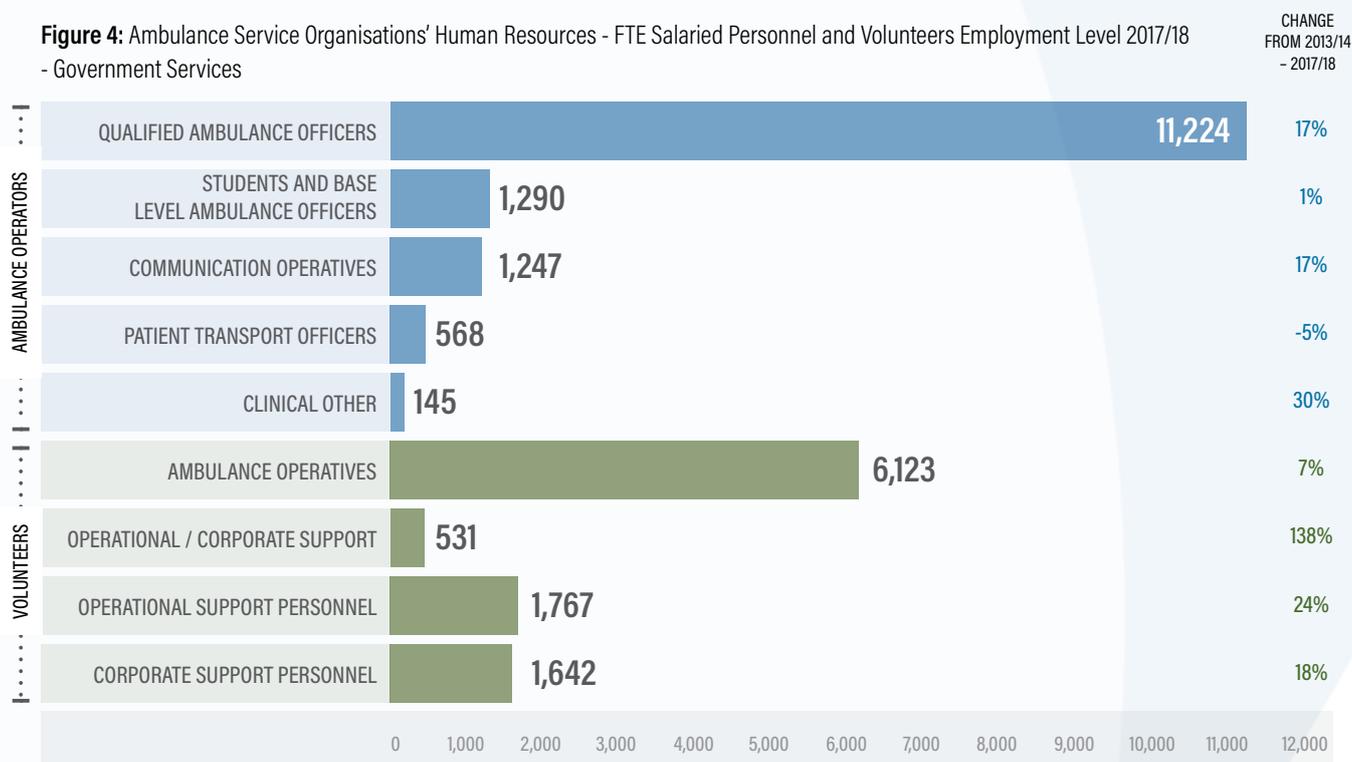
Ambulance and Paramedic Training Package qualifications can lead to employment in a wide range of roles that involve multiple emergency and non-emergency medical support responsibilities. Pre-hospital and out-of-hospital health care roles can involve attending accidents, emergencies and requests for medical assistance; assessing the health of patients and determining their need for assistance; transporting sick and disabled persons to and from medical facilities; and instructing community groups and essential service workers in First Aid. The role titles can be as varied as the responsibilities

with which workers are tasked. In addition to those job roles listed in Figure 1 earlier in this report, other examples of job roles include:<sup>15</sup>

- Community-based first responder (CFR)
- Workplace first responder
- Radio dispatcher
- Personal service worker
- Emergency service worker
- Volunteer first aider.

The Productivity Commission's Report on *Government Services - Ambulance Services*<sup>16</sup> shows that the **total FTE salaried workforce in ambulance services was 17,883 in 2017–18**; 81% were in operative ambulance roles, with the remaining 19% in corporate and operational support roles (see Figure 4). The number of qualified ambulance officers and communication operatives that these Training Package Products support (either directly with qualifications or by providing career pathways) has grown noticeably over the past five years (by **14% and 21% respectively**). Within the ambulance services sector, the number of patient transport officers and student or base-level ambulance officers has fallen or experienced minimal growth (a decrease of 5% and an increase of 1% respectively). However, this trend is more likely to represent a shift out of the ambulance-related services sector and into private enterprise provision.

**Figure 4: Ambulance Service Organisations' Human Resources - FTE Salaried Personnel and Volunteers Employment Level 2017/18 - Government Services**



Source: Report on Government Services 2019 – Ambulance Services (Part E, Chapter 11, Table 11A.8)

Note: The data sourced from the Report on Government Services 2019 – Ambulance Services does not include private sector employment, and the extent of the workforce supported by the Training Package Products will therefore be under-reported.

Volunteering is a significant component supported by these Training Package Products, and involves qualified individuals actively applying their skills in basic health care, communication and patient transport across different unpaid roles. These roles can include community transport volunteers, volunteer ambulance officers, volunteer first medical responders at events, and other health service support roles. There is no central data source which provides a count of volunteers involved in all these roles, and it is therefore difficult to accurately measure the size of the relevant volunteer workforce supported by the Training Package. Previous reports published by Volunteering Australia show that, in 2010, 7% of adult volunteers worked in emergency service organisations, 22% in welfare/community organisations and 9% in health organisations (which equates to over two million adults<sup>17</sup>). Figure 4 shows that over 6,600 volunteers were

involved in ambulance services with the majority (92%) active in operational roles rather than administrative and support function areas. Volunteering within operational roles has been increasing steadily over the past five years.

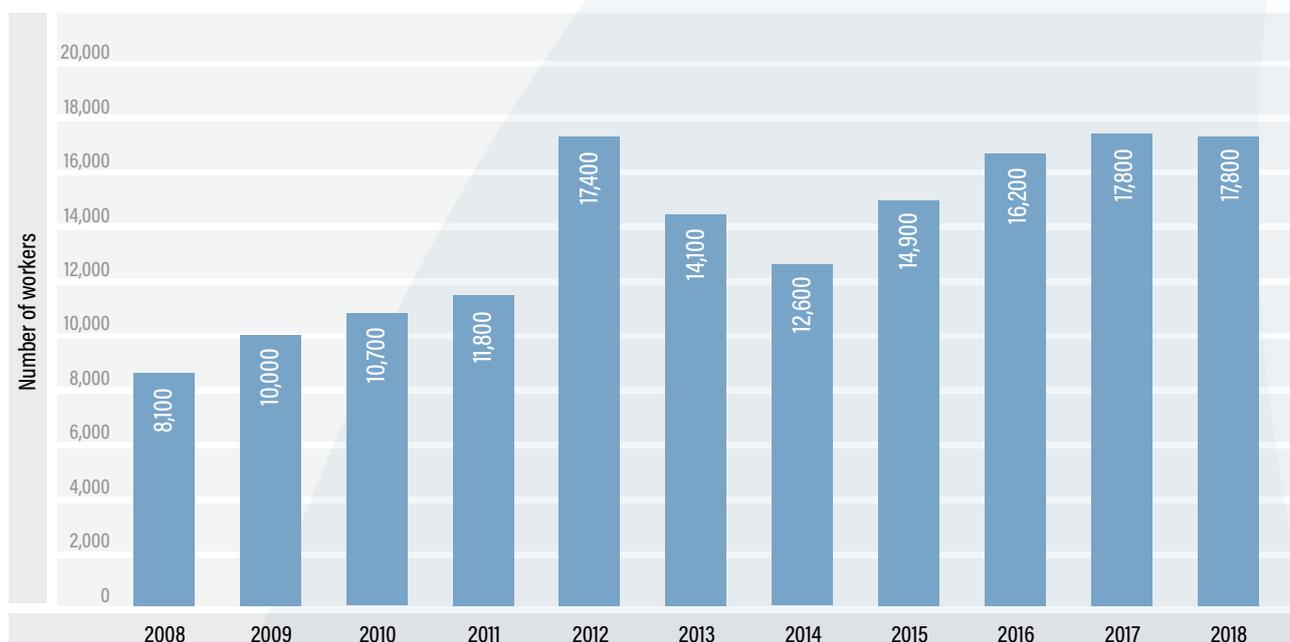
To supplement the trends indicated above, an overview of **ANZSCO Ambulance Officers and Paramedic** data published by the Department of Jobs and Small Business is provided in Figure 5. The ANZSCO classification represents in aggregate ambulance officers, paramedics and intensive care ambulance paramedics. **Please note that this data is limited in providing an accurate forecast of the workforce which these Training Package Products support, because:**

- The classification includes paramedic job roles which are not within the scope of the Training Package Products

- Some role types supported by the Training Package Products are distributed across different ANZSCO codes related to health, community and personal service workers. **The spread and ambiguous nature of role titles means that it is difficult to determine the true size and nature of the workforce.** Examples of roles for which it is difficult to quantify the public and private sector workforce sizes include:
  - First responders** - The majority of people in this role are volunteers or individuals who undertake the role as part of other duties in their workplace. The *Certificate II in Medical Service First Response* is primarily designed to assist in training people for this function. St John Ambulance Australia has approximately 10,000 volunteers who are first responders. Community first responders are also role types in this category.
  - Advanced responders** - Many workplaces (particularly mining and industrial sites) employ people to provide a level of service which is above that of first responder roles. Their scope of practice will vary depending on organisational needs and relevant state/territory legislation. The *Certificate III in Basic Health Care*, the *Certificate IV in Health Care* and the *Diploma of Paramedical Science* provide relevant training for these positions.

Figure 5 is therefore presented as an indicative snapshot only of a small proportion of the workforce, which the Training Package Products support and/or to which they provide pathways.

**Figure 5:** Employment levels of Ambulance Officers and Paramedic (2008-2018)



Source: Department of Jobs and Small Businesses (2018) ANZSCO 4111 Ambulance Officer and Paramedic

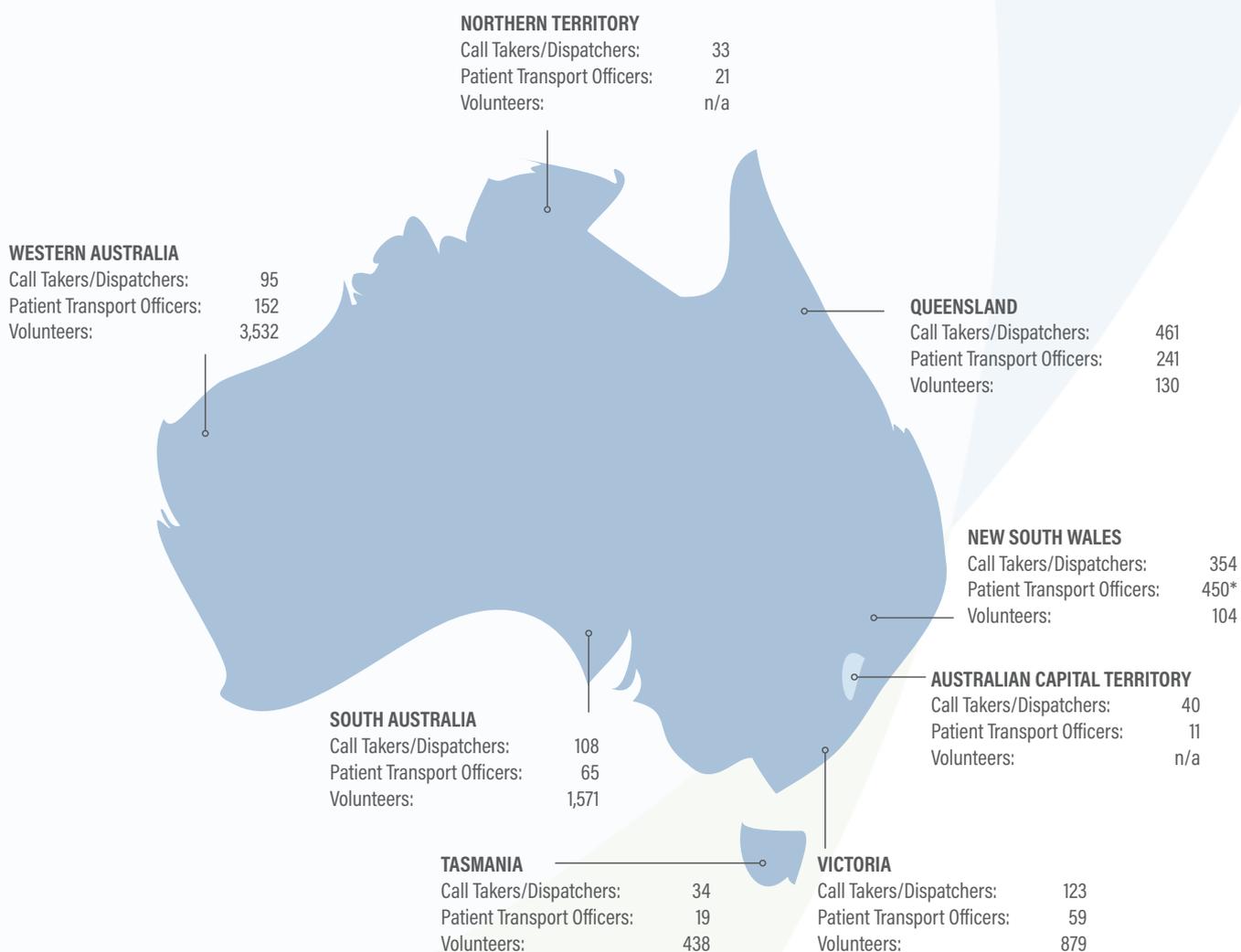
Note: Employment data is based on the ABS' Labour Force Survey estimates. For further information, go to: <https://www.abs.gov.au/Ausstats/abs@.nsf/0/D14CACAD37B9A863CA257D2C001245D3?OpenDocument>

Key traits of the Ambulance Officers and Paramedic workforce as captured by the ANZSCO classification are:<sup>18</sup>

- **Average age** – 39 years (similar to the national job average of 40 years)
- **Gender** – 44% female (lower than the national job average of 47% female)
- **Location** – 31.4% in New South Wales, 23.3% in Victoria, 25.0% in Queensland, 6.9% in South Australia, 10.8% in Western Australia, 0.8% in Tasmania, 1.7% in the Northern Territory and 0.0% in the ACT.

Drawing on other data sources, a preliminary breakdown of specific roles representing call takers and dispatchers (i.e. communications operatives), patient transport officers and volunteers (in a range of roles such as first responders, ambulance officers, etc.) as provided by ambulance service organisations is mapped in Figure 6. **These figures represent minimum workforce counts** as neither participation in the private sector nor that in the non-ambulance service-related provision sector is included. The actual numbers will therefore be significantly higher.

**Figure 6:** Ambulance service organisations' human resources - total number of FTE salaried personnel and volunteers by role types and state/territory (2017-18)



Source: Report on Government Services 2019 – Ambulance Services (Part E, Chapter 11, Table 11A.8)

Note: \*Data supplied by NSW Government Patient Transport Service (PTS). It does not include all local health districts in New South Wales therefore the total number in the state is likely to be higher.

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 job roles where specific data is available, strong employment growth is indicated for Ambulance Officer and Paramedic roles over the next five years. The majority of this growth, however, is expected to be across paramedic job roles (see Figure 7).

**Figure 7:** Employment levels (May 2018 and May 2023) and forecast % growth to May 2023 - Ambulance Officer and Paramedic



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

### Future Skills

Note: The findings are based on desk research as well as SkillsIQ's 2019 Future Skills Survey (conducted between November 2018 and January 2019) which have been filtered to include stakeholders from the Ambulance and Paramedic industry only. Insights and advice from IRC members and public consultation 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, and shifts in workforce demographics and industry (i.e. the transition from manufacturing and production to a largely service-based economy)<sup>19</sup> are just some of the ongoing trends driving change.

The pre-hospital and out-of-hospital health care sectors, like others, have 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 is 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 organisations to be **equipped key soft skills:**



**CRITICAL THINKING**



**EMOTIONAL INTELLIGENCE**



**PROBLEM SOLVING**



**SELF-MANAGEMENT**



**TEAMWORK AND COMMUNICATION**

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 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**.<sup>20</sup>

The VET system plays a pivotal role in supporting employers and employees in adapting to technologies and changes in the workplace. Its role in providing the workforce with current and emerging skills will only grow more strongly in the future as it continues to support individuals entering the workplace or transitioning into different roles.



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.

### Key Generic Skills – Ranked in Order of Importance

1	<b>Communication / Collaboration including virtual collaboration / Social intelligence</b> - 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	<b>Design mindset / Thinking critically / System thinking / Solving problems</b> - 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.
3	<b>Learning agility / Information literacy / Intellectual autonomy and self-management</b> - 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.
4	<b>Customer service / Marketing</b> - 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.
5	<b>Technology use and application skills</b> - 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.
6	<b>Data analysis skills</b> - 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.
7	<b>Managerial / Leadership</b> - 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.
8	<b>Environmental and Sustainability</b> - Ability to focus on problem solving and the development of applied solutions to environmental issues and resource pressures at local, national and international levels.
9	<b>Science, Technology, Engineering and Maths (STEM)</b> - Sciences, mathematics and scientific literacy.
10	<b>Language, Literacy and Numeracy (LLN)</b> - Foundation skills of literacy and numeracy.
11	<b>Entrepreneurial</b> - 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.
12	<b>Financial</b> - 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.



### A.3 Key Drivers for Change and Proposed Responses Overview

#### Key Drivers

There is no Training Package development work proposed for 2019-2020.

#### Current Work in Progress

It was proposed in the *2018 Ambulance and Paramedic Industry Skills Forecast* that certain qualifications, Units of Competency and a skill set should be updated, due to various industry challenges and opportunities impacting the workforce's skill requirements. Work to update these is therefore currently being conducted on the following Training Package Products within the remit of the Ambulance and Paramedic IRC, as follows:

#### Skill Set

- HLTSS00063 Advanced paramedical science skill set

#### Qualifications

- HLT21015 Certificate II in Medical Service First Response
- HLT31015 Certificate III in Ambulance Communications (Call-taking)
- HLT31115 Certificate III in Non-Emergency Patient Transport
- HLT31215 Certificate III in Basic Health Care
- HLT41015 Certificate IV in Ambulance Communications (Dispatch)
- HLT41115 Certificate IV in Health Care
- HLT51015 Diploma of Paramedical Science

#### Units of Competency

- HLTAMB001 Follow procedures for routine safe removal of patient
- HLTAMB002 Implement safe access and egress in an emergency
- HLTAMB003 Transport emergency patients
- HLTAMB004 Conduct advanced clinical assessment

- HLTAMBO05 Receive and respond to requests for ambulance service
- HLTAMBO06 Assign and coordinate ambulance service resources
- HLTAMBO07 Assess and deliver basic clinical care
- HLTAMBO08 Assess and deliver standard clinical care
- HLTAMBO09 Deliver intensive clinical care
- HLTAMBO10 Manage and coordinate resources for emergency operations
- HLTAMBO11 Manage a routine non-emergency scene
- HLTAMBO12 Communicate in complex situations to support health care
- HLTAMBO13 Contribute to managing the scene of an emergency
- HLTAMBO14 Transport non-emergency patients under operational conditions
- Networks of the Ambulance and Paramedic IRC members
- A national online survey (*2019 Future Skills Survey*) was distributed via the SkillsIQ database between November 2018 and January 2019 which sought to identify top skills needs and priority industry issues
- Public consultation on the draft Industry Skills Forecast took place in early 2019, and notifications of this were distributed by email to over 17,000 stakeholders registered in SkillsIQ's database network
- The Industry Skills Forecast, including the Proposed Schedule of Work, was promoted to stakeholders and made available via SkillsIQ's website.

## A.4 Consultation Undertaken

A widespread **multi-channel 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 Ambulance and Paramedic Industry Reference Committee (IRC) members representing the following key bodies:
  - Council of Ambulance Authorities
  - Australia & New Zealand College of Paramedicine
  - Ambulance Employees Australia – Victoria
  - St John Ambulance Western Australia Ltd.
  - NSW Ambulance
  - ACT Ambulance Service
  - Paramedical Services
  - Ambulance Tasmania
  - SA Ambulance Service
  - Department of Defence
  - Paramedics Australasia
  - Executive Risk Solutions
  - St John Ambulance Australia
  - Queensland Ambulance Service.

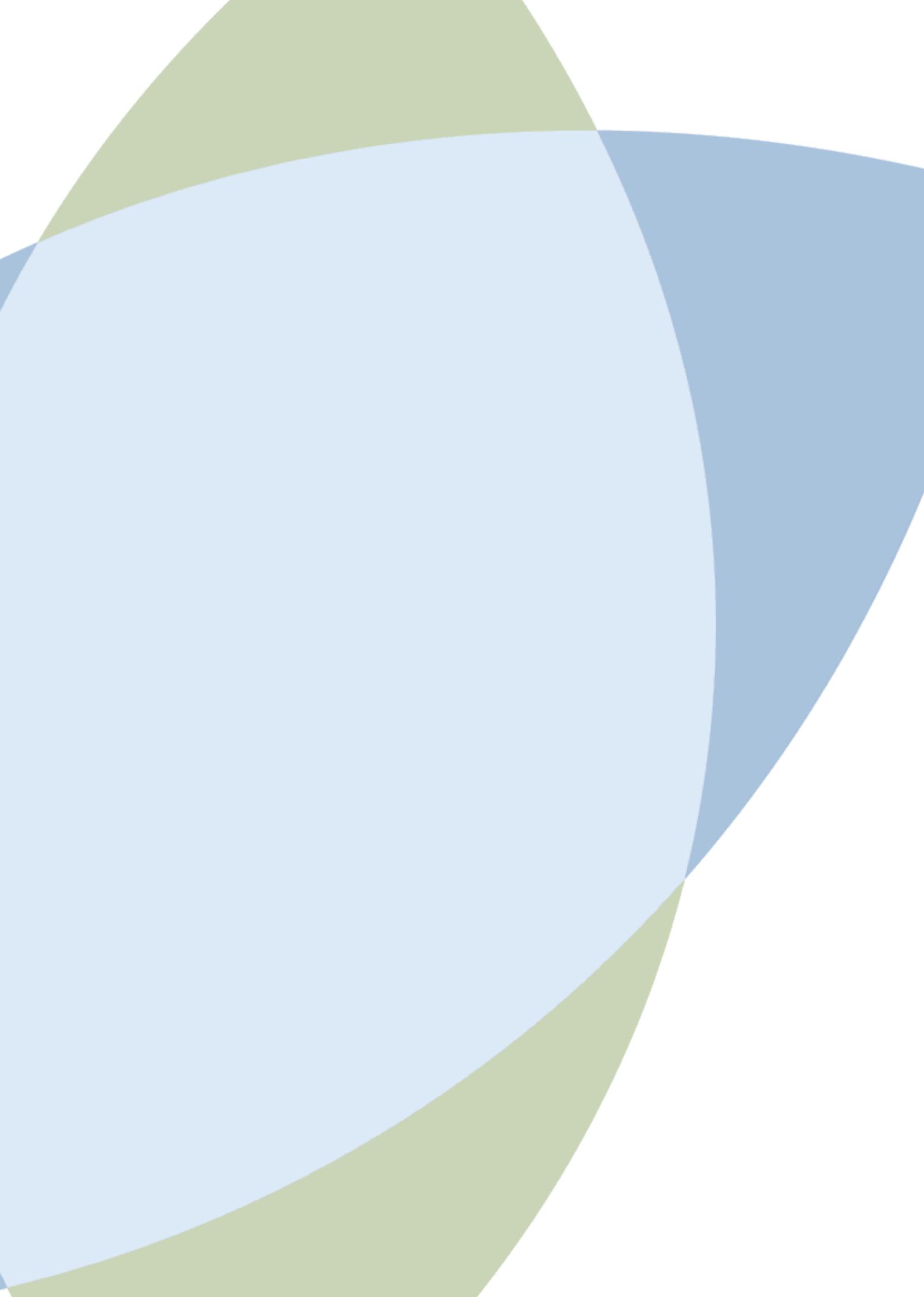
## B. Proposed Schedule of Work

2020–21

YEAR	PROJECT TITLE AND DESCRIPTOR
2020-21	No proposed projects

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