



Fact File

The Royal College of Pathologists of Australasia

**Australian Pathologist Workforce 2018
Anatomical Pathology**

AUSTRALIAN PATHOLOGIST WORKFORCE – ANATOMICAL PATHOLOGY

Overview

Anatomical Pathology is the branch of pathology that deals with the tissue diagnosis of disease. For this, Anatomical Pathologists need a broad-based knowledge and understanding of the pathological and clinical aspects of many diseases. The work of most Anatomical Pathologists is on tissue from living patients. A large part of this is the detection and diagnosis of cancer. A tissue diagnosis is essential before starting treatment involving major surgery, radiation or drugs, and treatments which may have major side effects. The examination of biopsy material taken from patients during surgery, on the ward or from an autopsy (post-mortem) are all important aspects of the role. The latter is a small but important component of the work for establishing the cause in cases of sudden or unexpected death and in criminal cases (forensic pathology), helping police in their investigations.

Modern Anatomical Pathologists examine not only samples of solid tissue, but also small specimens of separated cells. This is the subspecialty of Cytology. The specimens include fluids and tissue smears mainly for diagnosis and prevention of cancer. The pathologist collects some of these samples themselves, for example, for the diagnosis of cancer of the breast. Often this means that a certain diagnosis can be made before the patient has left the clinic. New methods also allow samples of either separated cells or small tissue fragments to be obtained from organs, such as the pancreas, situated deep within body cavities.

Workforce profile and trends

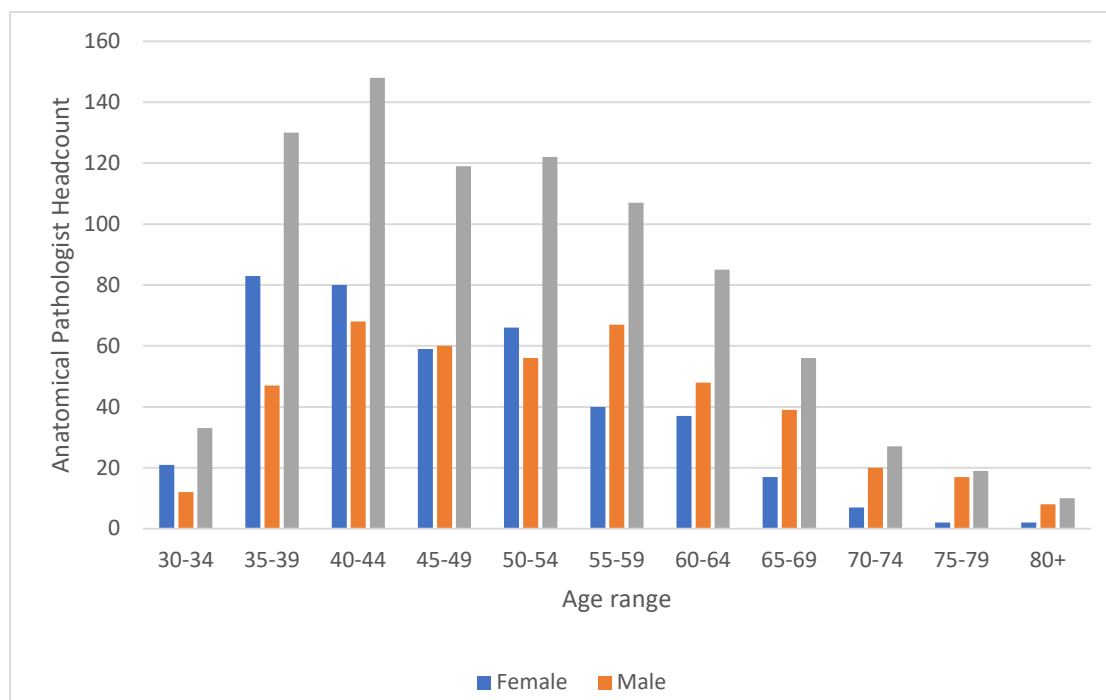
In 2016, the Anatomical Pathologist Workforce was 44.5% of the total Australian Pathologist workforce (a growth from 43.5% in 2011) and experienced growth per annum of 4.3% between 2011 and 2016.

Table 1: Anatomical Pathologist Workforce, 2016, Age and Sex Profile

Age Group	Headcount			Percentage	Percentage
	Female	Male	Total	by Age	Female by Age
30-34	21	12	33	3.9%	63.6%
35-39	83	47	130	15.2%	63.8%
40-44	80	68	148	17.3%	54.1%
45-49	59	60	119	13.9%	49.6%
50-54	66	56	122	14.3%	54.1%
55-59	40	67	107	12.5%	37.4%
60-64	37	48	85	9.9%	43.5%
65-69	17	39	56	6.5%	30.4%
70-74	7	20	27	3.2%	25.9%
75-79	2	17	19	2.2%	10.5%
80+	2	8	10	1.2%	20.0%
Total	414	442	856	100.0%	48.4%
55 years and older	105	199	304		
% 55 years and older	25.4%	45.0%	35.5%		

Source: RCPA Data Base

Figure 1: Anatomical Pathologist Workforce, 2016, Age and Sex Profile



Source: RCPA Data Base, 2016

Table 1 and Figure 1 show that the modal age range for the total Anatomical Pathology workforce is 40 to 44 years, for the female workforce is 35 to 39 years, and for the male workforce is 55 to 59 years. Females are in the majority in each age cohort up to 44 years, are just under half of those 45 to 49 years and again in the majority for those 50 to 54 years. Males are in the majority for all age cohorts 55 years and over.

Over one third of the workforce is older than 55 years (35.5%), with one quarter of females in this age range (25.4%), and over forty percent of males (45.0%). This profile has significant implications for the retirement of a large proportion of the workforce in the next ten years. However, there are 13.1% of the workforce aged 65 and older, so that 112 Anatomical Pathologists nationally will retire in a much shorter time frame.

Workforce demand and supply

The increasing complexity of testing was the main driver of workforce demand for Anatomical Pathology. Furthermore, structured reporting protocols are also contributing to increasing workload associated with complexity of testing.

The second key driver was the value adding role of pathologists who are increasingly responding to referrers for advice on the outcomes of pathology tests, increasing requirements for Anatomical Pathologists to be on-site at local laboratories.

Screening programs, such as Bowel Screening, are impacting on the work of Anatomical Pathologists, but the quantum of work is not necessarily captured. This is because if cancer screening results are negative it is not counted in the data on the incidence and prevalence of cancers (where cancer incidence and prevalence are a measure of demand).

Cytopathology is increasing in the complexity of testing. While there had been a decrease in the number of pap smears the rate of non-gynaecological tests was seen to be increasing.

There were mixed views regarding the impact of the digitalisation of slides which still requires steps in the process. Some members of the College were of the view that the impact of this changing technology would not be seen for ten years or so, while others felt it could happen more quickly. There was a view that there would need to be a quantum shift in laboratories to digitalise histopathology. It should be noted that digitisation in pathology is not like radiology and will not get the efficiency gains. X-ray can be taken on digital camera, while in pathology the tissue still has to be processed and stained and then finally digitalised. This adds another step.

While undertaking second readings is becoming more common overseas, limited second reading occurs in Australia. Currently this activity is driven by the clinician and is not funded. It was felt that there is a need to upskill Anatomical Pathologists in genetic and molecular testing to have a skilled workforce ready to deal with the anticipated changes if/when second readings are adopted more widely.

The impact of demographic change was rated as a medium level for population change and efficiency improvements and technological innovation were seen as low level drivers.

Results of projection modelling

A High Scenario growth in demand based on weighted growth in MBS item numbers of 4.2% and a Low Scenario using growth in workforce size of 4% was used.

Figure 2 Results of Projection Modelling for Anatomical Pathologist Workforce, High Scenario (Service Demand)

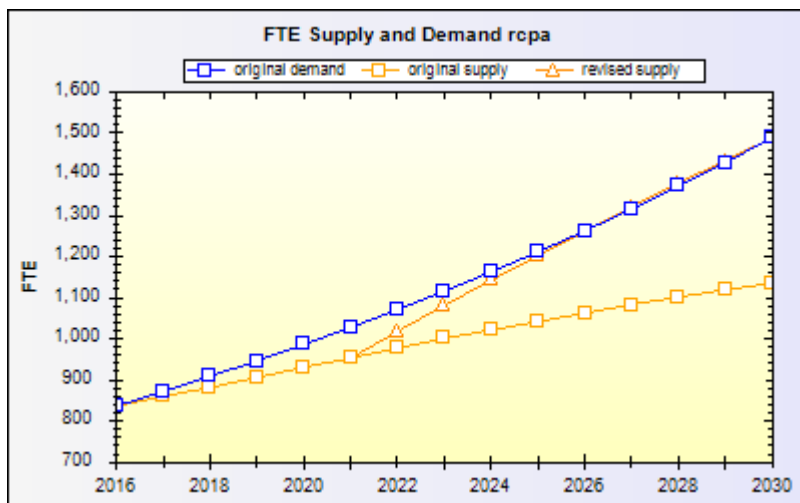


Figure 3: Results of Projection Modelling for Anatomical Pathologist Workforce, Low Scenario (Workforce Demand)

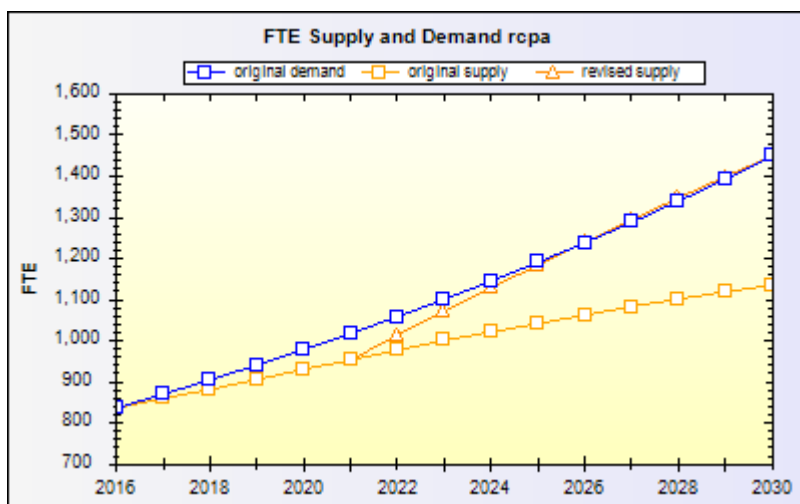


Table 2: Results of Workforce Modelling for Anatomical Pathologist Workforce

	Trainees				
	Base Year	Low Scenario	High Scenario	Gap Low Scenario	Gap High Scenario
	2016	2030	2030	2030	2030
Anatomical Pathology	46	86	91	40	45
Total six disciplines	97	151	238	54	141
Total Australian Workforce	100	170	192	70	92
	New Fellows				
Anatomical Pathology	41	78	82	37	41
Total six disciplines	87	138	213	51	126
Total Australian Workforce	90	153	173	63	83

Figures 2, 3 and Table 2 show that there are additional trainee commencements and new fellows required to balance supply and requirements. For the Low Scenario there are 40 additional trainee commencements and 37 new fellows needed, and for the High Scenario there are 45 additional trainee commencements and 41 new fellows needed. This is a large additional increase in trainees required for both Scenarios.