Pathology
2016 Factsheet

Pathology is the medical specialty concerned with the study of the cause of disease and the ways in which diseases affect our bodies by examining changes in the tissues and in blood and other body fluids. A minimum of five years full-time advanced training through the Royal College of Pathologists of Australasia is required to practice in any of these specialities:

- **Chemical pathology** deals with the diagnosis and management of disease by use of chemicals present in the body fluids and tissues;
- **Clinical pathology** deals with the diagnosis and management of disease by the use of a wide range of diagnostic laboratory medicine techniques, including examination of the patient;
- **Forensic pathology** focuses on medicolegal investigations of sudden or unexpected death;
- **General pathology** deals with the diagnosis and management of disease by use of every component of laboratory medicine and every diagnostic technique, including examination of the patient;
- **Genetic pathology** (Biochemical genetics and Medical genomics) contributes to the multidisciplinary range of skills required within pathology services to aid in the diagnosis, management and treatment of patients with disorders arising from genomic mutations;
- **Haematology** encompasses both clinical and laboratory aspects of primary disorders of the blood as well as how other diseases affect the blood;
- **Immunopathology** encompasses the provision of expert diagnostic support for patients with immune disorders; and
- **Microbiology** involves the use of laboratory techniques to diagnose infectious diseases, recommend antibiotic therapy and to advise, correlate, coordinate and educate clinicians regarding aspects of the pathogenesis, epidemiology, prevention and management of infection.

**Workforce**

In 2016, there were 1,007 pathologists employed in Australia, of whom 31.2% worked in the private sector. Over 87% of pathologists who completed the 2016 National Health Workforce Survey indicated they were clinicians.

**Quick facts of clinician workforce**

- 26.6% Aged 60 or older
- 52.0 Average age
- 22.1 Average hours per week
- 36.7% Female
- 91.5% Located in a major city
- 42.3% % Intend to retire within 10 years

**Demographics of clinicians**

Males represented 63.3% of clinicians in 2016 and had an average age of 54.6 years. Females represented 36.7% of clinicians and were on average 7.1 years younger than male clinicians.

<table>
<thead>
<tr>
<th>Category</th>
<th>% of clinicians</th>
<th>Average age</th>
<th>Average hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>63.3%</td>
<td>54.6</td>
<td>22</td>
</tr>
<tr>
<td>Female</td>
<td>36.7%</td>
<td>47.5</td>
<td>22.3</td>
</tr>
<tr>
<td>Clinician total</td>
<td>100.0%</td>
<td>52</td>
<td>22.1</td>
</tr>
</tbody>
</table>

**Distribution of clinicians**

In 2016, most clinicians (91.5%) were located in a major city or a location considered as MM1 under the Modified Monash Model classification system.

<table>
<thead>
<tr>
<th>MMM category</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>91.5</td>
<td>5.5</td>
<td>2.7</td>
<td>0.1</td>
<td>0.1</td>
<td>-</td>
<td>0.1</td>
</tr>
</tbody>
</table>

Further information on the Modified Monash Model is available at doctorconnect.gov.au

The largest number of clinicians was in New South Wales with 34.5% of clinicians indicating their principle place of practice was in this state.

**Clinicians by state & territory, 2016**

Proportion of Australian population*  
* ABS 3101.0 – Australian Demographics Statistics. Released 22/09/16.
The Australian Capital Territory had the highest ratio of clinicians in 2016 with 7.5 per 100,000 population. By contrast, the Northern Territory had the lowest ratio with 2.4 per 100,000 population.

New fellows
The number of female pathology new fellows increased by 43.5% between 2013 and 2015, whereas the number of males decreased by 26.7%.

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Males</td>
<td>30</td>
<td>24</td>
<td>22</td>
</tr>
<tr>
<td>Females</td>
<td>23</td>
<td>28</td>
<td>33</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>52</td>
<td>55</td>
</tr>
</tbody>
</table>

Vocational training
The number of trainees in 2016 was 13.5% higher than the number in 2013.

Vocational intentions
In 2016, there were 19 Hospital Non-Specialists (HNS*) who indicated their intention to undertake vocational training in chemical pathology, clinical pathology, forensic pathology, general pathology, genetic pathology, haematology, immunopathology and microbiology.

* A HNS is a medical practitioner employed in a salaried position mainly in a hospital. They do not hold a specialist qualification and are not training to obtain one. They include career medical officers, hospital medical officers, interns, principal house officers, resident medical officers and registrars.

Workforce dynamics indicator*
The workforce dynamics indicator highlights areas of concern in the future. The indicators measured and their current status is highlighted in the table below.

Note: The workforce dynamics indicators are for workforce assessment purposes only and are not intended to guide future training numbers.

Further information on the workforce dynamics Indicator is available at health.gov.au

Vocational trainees, 2013-16

References
3) Royal College of Pathologists of Australasia.
5) ABS 3101.0 – Australian Demographics Statistics. Released 22/09/16.

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