



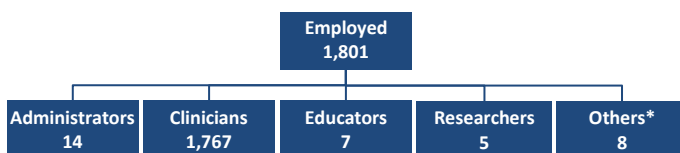
# Diagnostic radiology

## 2016 Factsheet

Diagnostic (Clinical) radiology relates to the diagnosis or treatment of a patient through the use of medical imaging. Diagnostic imaging uses plain X-ray radiology, computed tomography (CT), magnetic resonance imaging (MRI), ultrasound and nuclear medicine imaging techniques to obtain images that are interpreted to aid in the diagnosis of disease. It takes a minimum of five years full-time training with the Royal Australian and New Zealand College of Radiologists to specialise in diagnostic radiology.

### Workforce

In 2016, there were 1,801 radiologists employed in Australia, of whom 57.2% worked in the private sector. Over 98% of radiologists who completed the 2016 National Health Workforce Survey indicated they were clinicians.



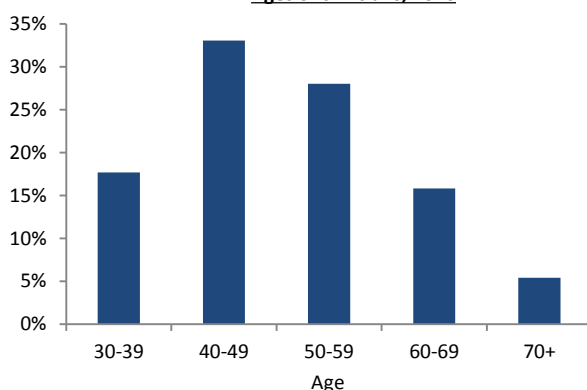
\* Includes roles reported by survey respondents that did not fit predefined survey categories.

### Demographics of clinicians

Males represented 75.4% of clinicians in 2016 and had an average age of 51.3 years. Females represented 24.6% of clinicians and were on average 3.8 years younger than male clinicians.

Category	% of clinicians	Average age	Average hours per week
Male	75.4%	51.3	42.1
Female	24.6%	47.5	34.2
<b>Clinician total</b>	<b>100.0%</b>	<b>50.3</b>	<b>40.2</b>

Ages of clinicians, 2016



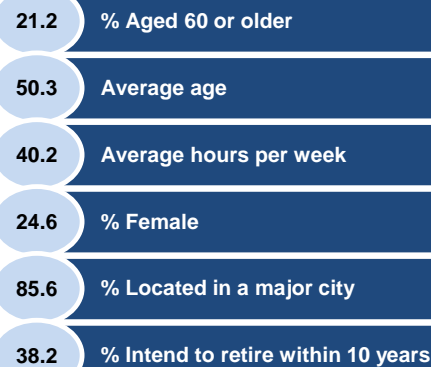
### Distribution of clinicians

In 2016, most clinicians (85.6%) were located in a major city or a location considered as MMM1 under the Modified Monash Model classification system.

Location of clinicians by remoteness, Modified Monash Model (MMM*)							
MMM category	1	2	3	4	5	6	7
%	85.6	7.9	5.4	0.7	0.4	0.1	-

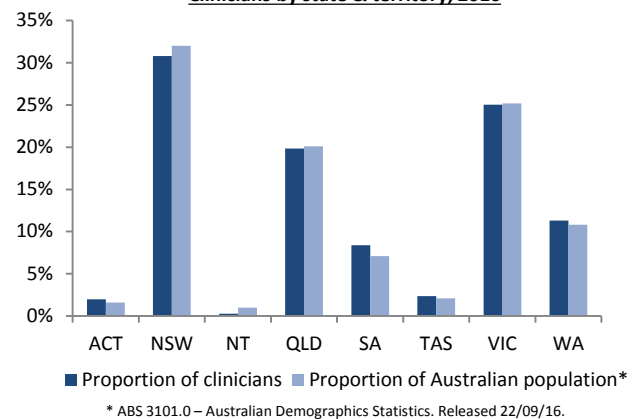
\* Further information on the Modified Monash Model is available at [doctorconnect.gov.au](http://doctorconnect.gov.au)

### Quick facts of clinician workforce



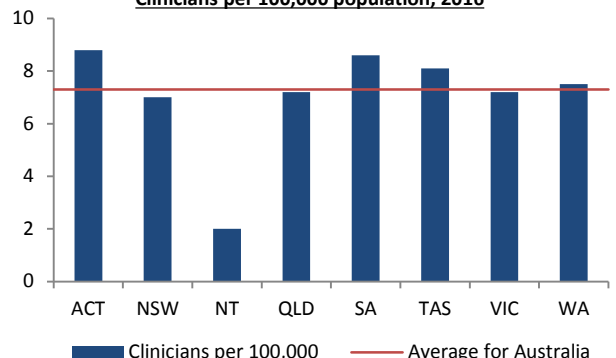
In 2016, New South Wales was listed as the principal place of practice for 30.8% of clinicians and Victoria for 25.0% of clinicians.

Clinicians by state & territory, 2016



The Australian Capital Territory had the highest ratio of clinicians with 8.8 per 100,000 population. By contrast, the Northern Territory had the lowest ratio with 2.0 per 100,000 population.

Clinicians per 100,000 population, 2016



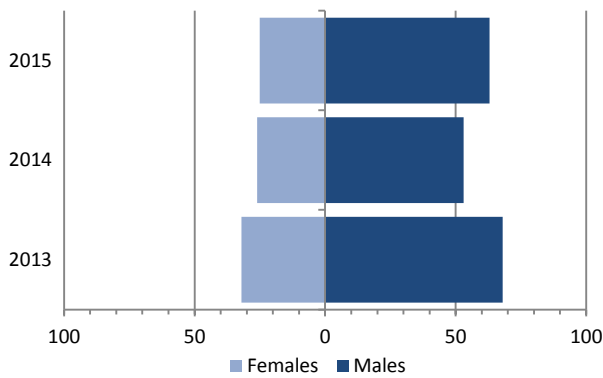
### New fellows

The overall number of diagnostic radiology new fellows decreased by 12.0% between 2013 and 2015. Overseas trained new fellows increased by 35.3% during this period.

	Number of new fellows, 2013-15		
	2013	2014	2015
Trained in Australia	83	55	65
Overseas trained	17	24	23
<b>Total</b>	<b>100</b>	<b>79</b>	<b>88</b>

Males represented 71.6% of new fellows and females 28.4% in 2015.

**New fellows by gender, 2013-15**



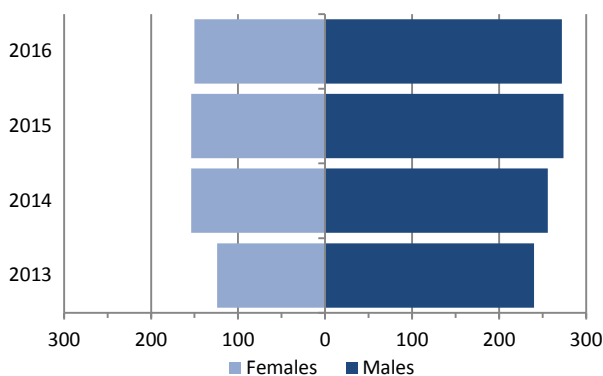
### Vocational training

During the period from 2013 to 2016 the total number of trainees increased by 15.9%.

**Trainee numbers, 2013-16**

Year	Females	Males	Total
2013	124	240	364
2014	154	256	410
2015	154	274	428
2016	150	272	422
<b>Change 2013-16 (%)</b>	<b>21.0%</b>	<b>13.3%</b>	<b>15.9%</b>

**Vocational trainees, 2013-16**

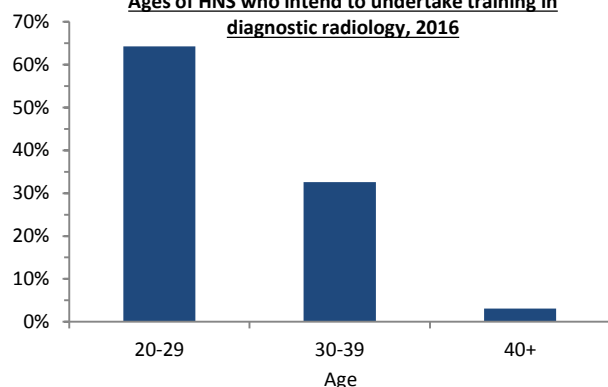


### Vocational intentions

In 2016, there were 193 Hospital Non-Specialists (HNS\*) who indicated their intention to undertake vocational training in diagnostic radiology.

\* 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.

**Ages of HNS who intend to undertake training in diagnostic radiology, 2016**



### 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](http://health.gov.au)



Indicator	Description	Status
<b>Ageing of workforce</b>	Workforces with higher average ages are more susceptible to higher exit rates due to retirements.	Orange circle
<b>Replacement rate</b>	This measure indicates whether trainee numbers are sufficient to replace the numbers leaving the workforce.	Green circle
<b>Reliance on Overseas Trained Specialists (OTS)</b>	Workforces with high proportions of OTS are of concern because they depend on a supply stream affected by immigration policies that change.	Orange circle
<b>Duration of training program</b>	This measure indicates how long it takes to train a replacement workforce.	Orange circle

### References

- 1) National Health Workforce Dataset (NHWDS): Medical Practitioners 2016.
- 2) Royal Australian and New Zealand College of Radiologists.
- 3) Medical Education and Training Report 1<sup>st</sup> edition (Unpublished).
- 4) ABS 3101.0 – Australian Demographics Statistics. Released 22/09/16.
- 5) Australian Medical Association (AMA) Career Pathways Guide.
- 6) National Medical Training Advisory Network (NMTAN) – Prevocational Doctor Factsheet Methodology Paper.

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