

Radiation therapy

Workforce modelling factsheet

Radiation therapists are integral members of a compassionate and highly skilled multi-disciplinary team that manages and supports patients and their families through their cancer journey. Using sophisticated treatment and imaging equipment, and advanced computer systems, radiation therapists are responsible for the design, accurate calculation and quality assurance of custom treatment plans to deliver the optimum radiation dose to the cancer. They are also responsible for utilising highly technical imaging techniques and image interpretation skills to ensure accuracy of treatment delivery for the best possible outcomes for patients. With compassion and strong interpersonal skills, radiation therapists have the ability to educate and counsel patients throughout treatment to alleviate anxieties relating to diagnosis, treatment and follow up care. Radiation therapists are frequently involved with quality improvement and research projects to improve cancer treatment outcomes.



Workforce characteristics for NSW Health radiation therapy workforce in 2040



923
Headcount



75.5%
Female



33.6
Work hours per week



42.4
Years average age



12.4%
Future 60+



3.4%
Aboriginal workforce target



Demand is expected to grow **3.4%** (low demand scenario) to **3.8%** (high demand scenario).

Workforce modelling indicates the need to grow the NSW radiation therapy workforce by around **5 to 11** new professionals per annum to meet community need in 2040 across both demand scenarios.

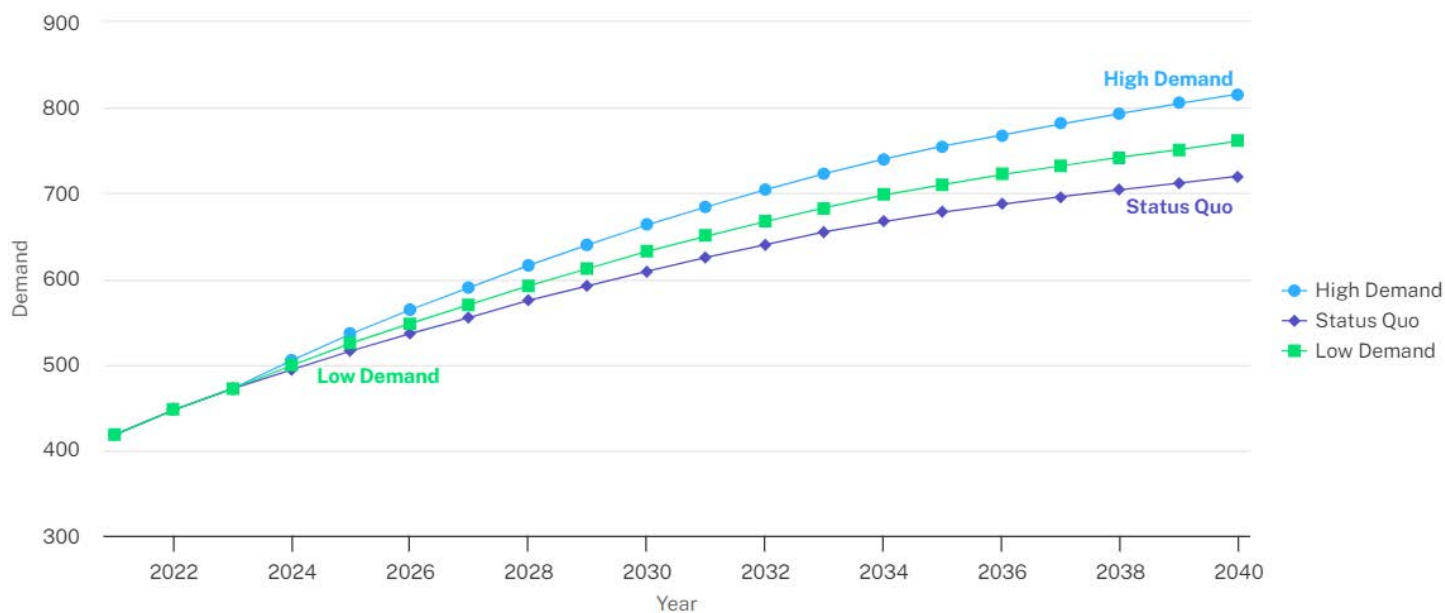
SIGNIFICANT
CAREER OPPORTUNITIES

Notes

- Data included is limited to the workforce employed under the relevant health professional award.
- Specialty health networks are not displayed geographically in the workforce distribution maps.
- LHD/SHN may engage in sessional arrangements in selected circumstances.
- Workforce that cannot be aligned to a physical location have been attributed to a pre-determined facility within each LHD/N. This may impact on Headcount shown at these facilities within the distribution map.
- NSW Health does not make any representations or warranties whether expressed or implied with respect to the accuracy and completeness of the information contained in the fact sheet.

* Note: The inclusion of added qualitative inputs within career opportunities varies from standard modelling methodology calculations and hence differs to standard modelling outcomes.

Projected FTE growth for NSW Health radiation therapy workforce to 2040



Workforce characteristics for NSW Health radiation therapy workforce in 2021



481
Headcount



31.6
Work hours per week



38.6
Years average age



74.2%
Female



2.2%
Aged 60+



0.4%
Aboriginal

Metropolitan Sydney



323
Headcount



31.0
Work hours per week



39.3
Years average age



1.6%
Aged 60+

Non-Metropolitan Sydney



186
Headcount



32.6
Work hours per week

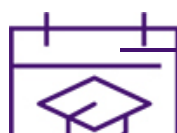


37.6
Years average age



0.6%
Aged 60+

Radiation therapy junior entrant positions into NSW Health



2017
45

2018
21

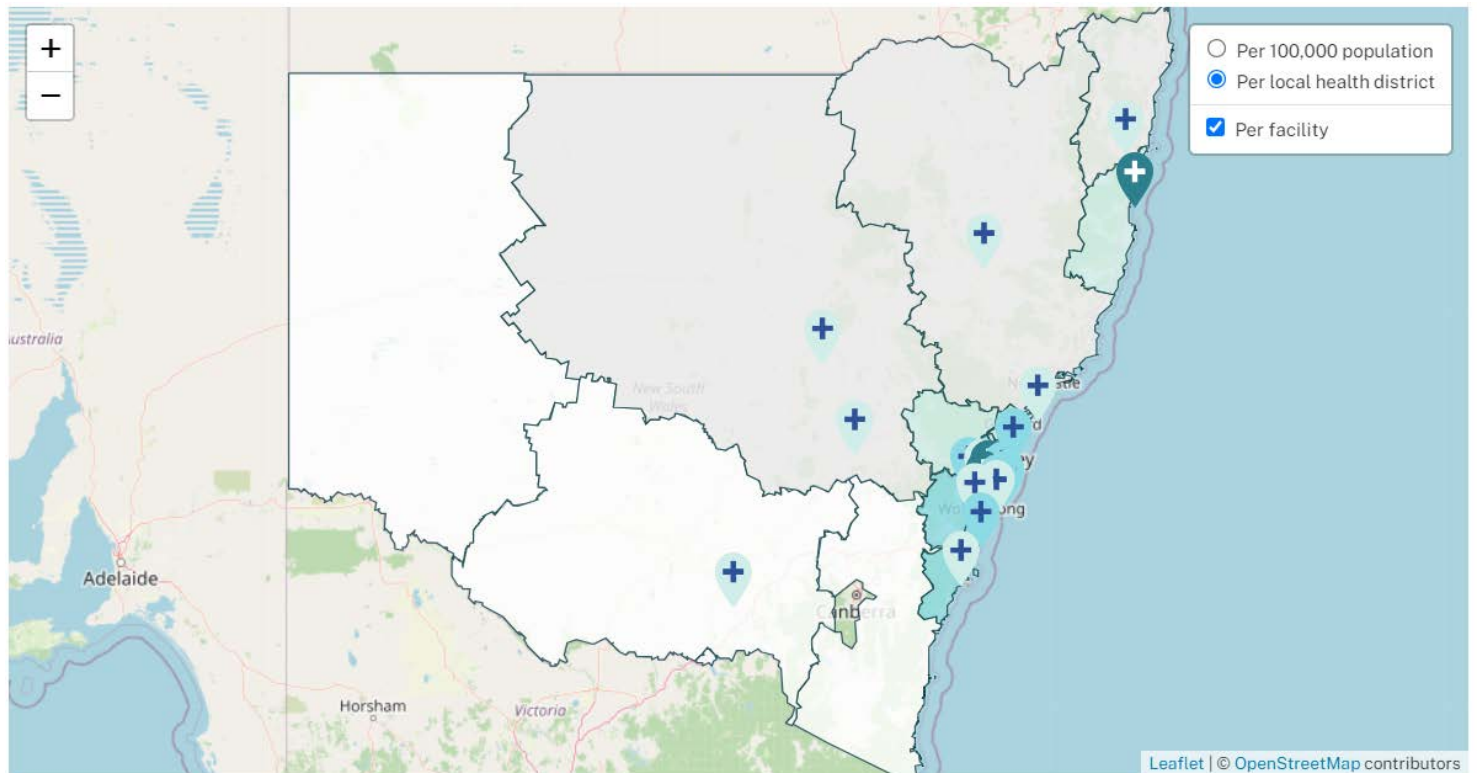
2019
36

2020
33

2021
30

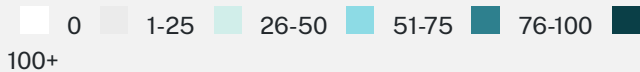
Workforce distribution for NSW Health radiation therapy workforce in 2021

The geographic distribution of the public workforce by local health district/network, by facility and per 100,000 population.



Legends

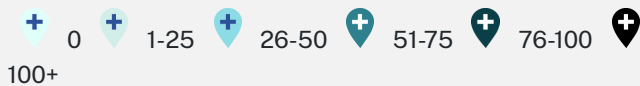
Per local health district



Per 100,000 population



Per facility



Other networks

- Sydney Children's Hospitals: 20 to 50 | 1 to 5 per 100,000
- Enable NSW: 0 | 0 per 100,000
- Justice Health and Forensic Mental Health: 0 | 0 per 100,000

Workforce considerations

- Population demographics and increasing incidence of complex and chronic disease and cancer may increase demand for radiation therapy services.
- Technology and innovation developments require radiation therapists to be engaged in ongoing training and education to ensure workforce skill mix reflects service need and delivery.
- Clinical educator positions and continuing professional development opportunities may help to develop and retain skilled workforce and broaden scope for career development.
- Physical infrastructure and major medical equipment, in addition to radiation therapy workforce requirements to operate equipment, needs to be considered in service planning to optimise the delivery of radiation therapy services.
- Ensuring sustainable training pipelines, graduates, student educators and workforce reflect the future workforce requirements of the community, by both location, speciality and skills.
- Opportunities to rapidly build the radiation therapy workforce through an accelerated pathway with university partners has been suggested by the workforce.