

Chapter 2

Availability and accessibility of diagnostic imaging

Introduction

2.1 The availability and accessibility of diagnostic imaging was a central concern in this inquiry. This chapter will focus on the current distribution of the following diagnostic imaging machines across Australia and issues relating to access to them:

- ultrasound;
- computed tomography (CT);
- diagnostic radiology (such as x-ray and mammography) and
- nuclear medicine imaging, including positron emission tomography (PET).

2.2 Specific issues relating to the use of and accessibility of Magnetic Resonance Imaging (MRI) equipment is considered separately in chapter three of this report.

Distribution

2.3 The distribution of diagnostic imaging machines around Australia is determined by private providers, based on commercial considerations, and by the state and territory governments that provide public health services.¹

2.4 The Department of Health (Department) advised the committee that one method to consider whether Australia has enough diagnostic imaging machines is to consider how many machines Australia has per capita relative to other developed countries. The Organisation for Economic Co-operation and Development (OECD) collects data on the availability of CT and MRI machines in each country.

2.5 In 2015, Australia ranked 11th in its availability of CT equipment per million people compared to other OECD countries.² Between 2013 and 2015, Australia increased its availability of CT equipment from 53.7 per million to 59.6 per million. The table below shows a comparison between the top ranking OECD countries and the number of CT machines per million people from 1998 to 2015.

1 Department of Health (Department), *Submission 18*, p. 6.

2 Department, *Submission 18*, p. 35.

Table 2.1: CT equipment per million population OECD countries, 1998–2015

Country	1998	2003	2008	2013	2015
United States		58.5		86.9	81.9
Iceland	18.3	41.5	63.0	80.3	79.0
Denmark		28.9	43.0	75.5	75.6
South Korea	23.1	31.9	73.1	75.3	74.6
Switzerland	19.0	18.0	32.0	73.2	
Greece			31.1	70.2	
Latvia		27.1	47.8	69.6	
Germany	10.6	55.1	62.3	67.4	
Italy	36.0	47.8	61.9	66.2	
Austria	52.2	54.4	59.4	59.2	
Australia	24.2	40.6		53.7	59.6
Lithuania		18.2	27.5	47.3	
Luxembourg	25.9	26.6	53.2	44.2	35.5
Finland	24.4	28.0	0.0	43.4	42.8
Estonia			29.9	37.9	
Spain	10.1	12.9	14.7	35.2	
Poland	3.5	6.3	10.9	34.2	
Slovakia		18.2	27.5	30.7	
Czech Republic	8.1	12.7	26.8	30.1	
France	13.3	16.1	21.7	29.0	33.2

Source: Department, *Submission 18*, p. 35.

2.6 The Department submitted that there are no international benchmarks for the optimal number of diagnostic imaging machines per capita and for this reason the Department submitted that it was not possible to ascertain where Australia is positioned from an international perspective.³

2.7 Within Australia, the evidence provided by the Department indicated that there is a relatively equal spread of machines per capita between the different states and territories across most modalities.⁴ For example, the Department advised the committee that there are 28 CT machines in the Australian Capital Territory—6.9 units per 100 000 residents—and there are 562 CT machines in New South Wales—7.3 units per 100 000 residents.⁵

2.8 The original tables provided by the Department for each modality are available at Appendix 3.

2.9 Even if there is relatively equal distribution of machines by state and territory per capita around Australia, diagnostic imaging machines are not necessarily distributed evenly around those states, and the geographic disparities extend both to

3 Department, *Submission 18*, p. 12.

4 Department, *Submission 18*, p. 12.

5 Department, *Submission 18*, p. 14.

the availability of diagnostic imaging services and the availability of experts to operate the equipment and interpret the results.⁶

2.10 According to Primary Health Care Limited—a service provider—attracting and retaining radiologists and technical diagnostic professionals in regional centres or low-socioeconomic areas is difficult.⁷ Issues relating to the diagnostic imaging workforce are discussed in chapter four.

Case study: Queensland

2.11 Queensland, a decentralised state, is a good case study to consider questions of distribution. Mr Eastgate, President of the Australian Society of Medical Imaging and Radiation Therapy (ASMIRT) described Queensland as operating a hub-and-spoke model:

When you look at the hub-and-spoke model, the more the acuity of the condition the more likely you are to be funnelled back to one of the big centres. That's where they need the high-acuity equipment to make an accurate diagnosis for treatment.⁸

2.12 This means that the larger hospitals in major cities—the Royal Brisbane and Women's Hospitals, The Prince Charles Hospital (Brisbane), Toowoomba Hospital, Ipswich Hospital and Bundaberg Hospital—offer almost a complete suite of diagnostic imaging services.⁹

2.13 In other regional areas of Queensland, such as Warwick, Goondiwindi and Gatton, CT and Ultrasound services are provided in conjunction with a private provider under a fee-for-service arrangement.¹⁰ Alternatively, patients may need to be referred to a private provider in some cases. For example, Maryborough Hospital currently does not offer CT or nuclear medicine services, though these are available from private providers in Maryborough.¹¹

2.14 In some more regional Queensland areas, such as Dalby and Kingaroy, the Darling Downs Hospital and Health Service told the committee that CT services were

6 Professor John Magnussen, Professor of Radiology, Head of Neuroradiology and Cardiac Imaging, Macquarie University; Director of Research, Macquarie Medical Imaging, *Committee Hansard*, 13 December 2017, p. 27.

7 Mr Dean Lewsam, Chief Executive, Healthcare Imaging Services, Primary Health Care Limited, *Committee Hansard*, 13 December 2017, p. 28.

8 Mr Patrick Eastgate, President, Australian Society of Medical Imaging and Radiation Therapy (ASMIRT), *Committee Hansard*, 13 December 2017, p. 41.

9 Darling Downs Hospital and Health Service, *Submission 21*, p. 1; Metro North Hospital and Health Service, *Submission 23*, [p. 1]; West Moreton Health and Hospital Service, *Submission 25*, p. 1; Wide Bay Hospital and Health Service, *Submission 30*, [p. 1].

10 Darling Downs Hospital and Health Service, *Submission 21*, p. 2; West Moreton Hospital and Health Service, *Submission 25*, p. 2.

11 An expansion of Maryborough's emergency department may include on-site CT services. Wide Bay Hospital and Health Service, *Submission 30*, [p. 2].

'limited', even though they are considered to be regional hubs that provide 24-hour coverage for emergencies.¹²

2.15 In rural locations, such as Kilcoy, Laidley, Gin Gin and Monto, often only general x-ray services are provided.¹³ In some cases, these x-rays are taken by a non-radiographer and are reported from another hospital.¹⁴ The reason for this is explored in greater detail in chapter four.

2.16 The concentration of equipment and human resources in larger cities, as seen in Queensland, is replicated across Australia. Children's Healthcare Australasia (CHA) and Women's Healthcare Australasia (WHA) explained that state funded hospitals are the only providers of diagnostic imaging services in most parts of the Northern Territory, Western Australia, far western Queensland and far western New South Wales.¹⁵

Case study: PET services in New South Wales

2.17 PET is a nuclear medicine imaging technology that is used to image particular types of cancers, such as prostate cancer.¹⁶

2.18 Associate Professor Anthony Lowe from Prostate Cancer Foundation of Australia explained to the committee that this form of imaging enabled oncologists to understand if cancers are recurring and where those cancers are so that better treatment plans can be developed.¹⁷

2.19 The location of nuclear medicine imaging, such as PET, is restricted because PET equipment must be located 'within a facility that has comprehensive cancer services for Medicare benefits purposes'.¹⁸ A comprehensive facility, as defined by the Health Insurance (Diagnostic Imaging Services Table) Regulations 2017 (DIST), is a:

...building or part of a building, or more than one building, where all of the following services are performed (whether or not other services are also performed):

- (a) PET;
- (b) computed tomography;

12 Darling Downs Hospital and Health Service, *Submission 21*, pp. 1–2.

13 Metro North Hospital and Health Service, *Submission 23*, [p. 1]; West Moreton Hospital and Health Service, *Submission 25*, p. 2; Wide Bay Hospital and Health Service, *Submission 30*, [p. 2].

14 Metro North Hospital and Health Service, *Submission 23*, [p. 1]; Wide Bay Hospital and Health Service, *Submission 30*, [p. 2].

15 Children's Healthcare Australasia (CHA) and Women's Healthcare Australasia (WHA), *Submission 26*, p. 1.

16 Associate Professor Anthony Lowe, Chief Executive Officer, Prostate Cancer Foundation of Australia, *Committee Hansard*, 13 December 2017, p. 18.

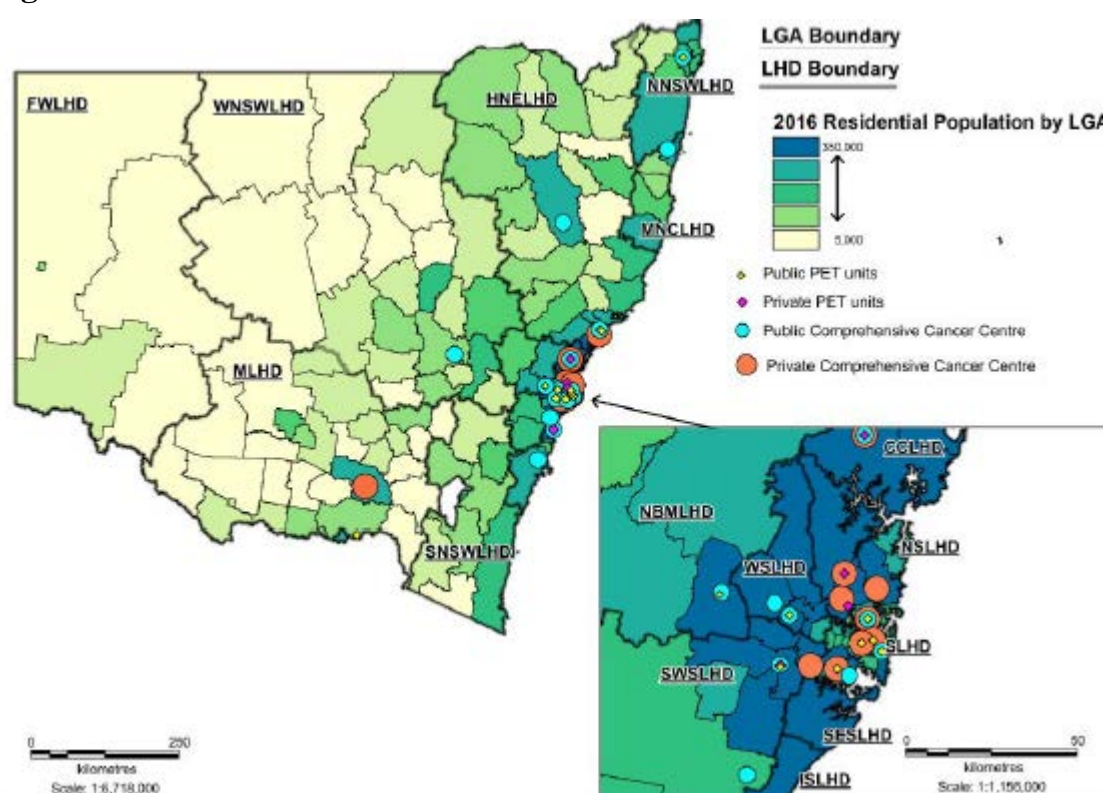
17 A/Prof Lowe, *Committee Hansard*, 13 December 2017, p. 19.

18 Department, *Submission 18*, p. 29.

- (c) diagnostic ultrasound;
- (d) medical oncology;
- (e) radiation oncology;
- (f) surgical oncology;
- (g) x-ray.¹⁹

2.20 The number of facilities that offer all of these services is limited. In New South Wales, the majority of these facilities are located in major cities. The below map demonstrates that, despite a number of comprehensive cancer centres being located around New South Wales, most of the PET scanners are located in and around Sydney.

Figure 2.1—Location of PET services in New South Wales



Source: New South Wales Health, *Submission 33*, p. 2.

2.21 One reason for this may be the difficulty associated with the production and transport of the radioisotopes required to operate the PET scanner due to their short half-life.²⁰

Accessibility of diagnostic imaging machines

2.22 Accessibility can take many forms and it means different things to different people. One of the more comprehensive definitions the committee received was from

19 Department, *Submission 18*, p. 29. The Department advised that the requirement for PET services to be located in a comprehensive facility has not been reviewed since 2010.

20 Department, *Submission 18*, pp. 29–30.

Cancer Voices Australia which told the committee that it considered that full accessibility required physical, geographic, financial and cultural access and timely reporting of the results.²¹ However, the definition the committee heard most frequently from submitters was based on geography.²²

Geographic accessibility

2.23 Submitters were concerned that living in regional, rural and remote areas has adverse consequences for patients, namely:

- patients have limited access to appropriate diagnostic imaging services; and
- patients face additional costs to access those services.

2.24 Access to up-to-date equipment (capital sensitivity measures) in regional, rural and remote areas was another key issue discussed with the committee, and is considered further in chapter five.

2.25 The committee was reminded by submitters that regional, rural and remote Australians have poorer health outcomes than their urban counterparts.²³ ASMIRT noted in its submission that 'statistics still demonstrate that the more remotely people live, the greater the risk of dying young...'²⁴ ASMIRT attributed the poorer health outcomes, in part, to diagnostic imaging not being available in regional, rural and remote areas.²⁵ ASMIRT also reported that common procedures, such as perfusion stroke imaging, are not available and private providers are not required to offer a full range of services.²⁶

2.26 The availability of services in rural areas varies between modalities. The representative of the Darling Downs Hospital and Health Service and the West Moreton Hospital and Health Service called the state of CT services in rural Queensland 'diabolical', and noted that access was particularly problematic for cases of trauma and stroke.²⁷

2.27 Even if the patient is able to obtain the required scan in a regional area, they are likely to pay more for it. Primary Health Care Limited advised the committee that independent research had found that rural patients pay almost 25 per cent more for

21 Cancer Voices Australia, *Submission 1*, p. 1.

22 See for example: Australian College of Rural and Remote Medicine (ACRRM), *Submission 4*, p. 4; Cancer Council Northern Territory, *Submission 6*, p. 3; Queensland Nurses and Midwives' Union (QNMU), *Submission 13*, p. 3; Ms Kate Reynolds, *Submission 34*, [p. 1].

23 Private Health Care Limited, *Submission 8*, p. 5; QNMU, *Submission 13*, p. 2; ASMIRT, *Submission 24*, p. 5.

24 ASMIRT, *Submission 24*, p. 5.

25 ASMIRT, *Submission 24*, p. 5.

26 ASMIRT, *Submission 24*, p. 5.

27 Mr Aiden Cook, Director of Medical Imaging, Darling Downs Hospital and Health Service, *Committee Hansard*, 13 December 2017, p. 14.

diagnostic images (the average out-of-pocket payment for an inner city service is \$86 whereas the average out-of-pocket charge in rural areas is \$107).²⁸

2.28 These factors often require rural patients to travel to access services.

Travel and patient travel subsidy schemes

2.29 Travel and other related expenses pose unique financial and personal challenges for patients from regional, rural and remote areas, including travel and accommodation costs, absence from work, family travel costs and arrangement for family members left behind.²⁹

2.30 The Queensland Nurses and Midwives' Union (QNMU) noted that 85 per cent of Australia is classified as remote and that in many cases people who live in rural, regional or remote parts of Australia must travel long distances to access imaging services. The QNMU provided the example that a patient who lives in Weipa must travel 800 kilometres to Cairns if they require an MRI.³⁰

2.31 The Australian Medical Association (AMA) provided the committee with an example of a rural patient who experiences chest pain and may have to make such a trip multiple times :

...a patient initially presenting to a general practitioner with chest pain would generally be referred for an X-ray; then if showing an abnormal result, for a CT scan. If the CT scan indicates a possible tumour, the patient will need to be referred to a specialist medical practitioner who may then arrange a fine needle biopsy...Under this scenario, a country patient moving through this pathway of care would need to return to the city for these services three separate times, because each time a new referral is required from the general practitioner and then specialist medical practitioner. Not only are multiple trips expensive and disruptive for the patient, but a definitive diagnosis is delayed by many weeks, even assuming the patient complies with each referral promptly.³¹

2.32 Service providers in both Queensland and Western Australia detailed the complexity of providing diagnostic imaging services in regional, rural and remote areas. In some cases, patients are transported from rural hospitals and taken to either a larger population centre, or to a private diagnostic imaging service provider.³²

28 Primary Health Care Limited, *Submission 8*, p. 7.

29 Australian Medical Association (AMA), *Submission 7*, p. 5. See also Mr Delan Adikari, *Submission 20*, [p. 2].

30 QNMU, *Submission 13*, p. 2.

31 AMA, *Submission 7*, p. 5.

32 See, Mr Cameron Robertson, Acting Director, Medical Imaging Services, Sunshine Coast Hospital and Health Service, *Committee Hansard*, 13 December 2017, pp. 11, 16; Mr Cook, *Committee Hansard*, 13 December 2017, p. 14; Mrs Marie Baxter, Executive Director of Nursing and Midwifery, WA Country Health Service, *Committee Hansard*, 9 November 2017, p. 29.

2.33 Some of these costs can be lessened through state-funded patient travel subsidy programs.³³ Rare Cancers Australia argued that travel schemes are needed as a matter of equity:

Geographical barriers need to be mediated by user-friendly and accessible transport and accommodation subsidy schemes. The current state-based travel schemes lack consistency and are funded as an add on healthcare benefit where they need to be viewed and funded as essential and first line. Timely access to diagnostic imaging should not be determined by someone's bank balance or postcode.³⁴

2.34 However, the committee heard that subsidy programs, if available, do not adequately alleviate these financial pressures. The AMA acknowledged that state and territory travel and accommodation assistance schemes for remote patients 'are administratively difficult and complex to access and provide relatively small reimbursements'.³⁵

2.35 That view was endorsed by the representative of the Darling Downs Hospital and Health Service and the West Moreton Hospital and Health Service who described the patient transport service in the following terms:

The process is paper-heavy and inefficient and sees a significant shortfall between the amounts provided by PTSS [Patient Travel Subsidy Scheme] and the actual cost of transport and accommodation, particularly for multiday stays for diagnostics or outpatient care. This acts as a significant disincentive for having imaging performed and leads to poorer outcomes for patients. Topping up the state-based PTS or otherwise financially supporting rural and remote patients for their travel and accommodation associated with imaging would go a long way to allowing better access to services by removing financial constraints to attending appointments. This is a particular issue for Aboriginal and Torres Strait Islander patients.³⁶

2.36 Aboriginal and Torres Strait Islander patients often culturally require an escort. Cancer Council Northern Territory told the committee that a lack of funding meant that having an escort travel with them was not always possible:

Patient Assistance Travel Scheme are not always able to provide funding for escorts for remote indigenous patients requiring invasive procedures or treatments. Patients will decline to come into town unless accompanied by a family member or escort thus delaying diagnosis, treatment and with the potential for poorer outcomes in an already disadvantaged population. Cost of transport from airport to accommodation is not provided and is a significant outlay for people travelling.³⁷

33 AMA, *Submission 7*, p. 5.

34 Rare Cancers Australia, *Submission 31*, [p. 2].

35 AMA, *Submission 7*, p. 5.

36 Mr Cook, *Committee Hansard*, 13 December 2017, p. 10.

37 Cancer Council Northern Territory, *Submission 6*, p. 2.

2.37 The QNMU noted that even in cases where funding is available, if the patient lives in a remote location, the escort may be the only health worker in the community or the transport vehicle may be the only emergency vehicle in the town.³⁸

2.38 In many cases, having to travel a long distance may either cause the patient to delay the procedure or elect not to have the diagnostic images taken at all.³⁹

2.39 These problems and costs are exacerbated if the patient requires multiple scans.

Multiple service rule

2.40 The financial burden is magnified when patients are required to travel back and forth to access multiple diagnostic services. This concern was raised by the representative of Breast Cancer Network Australia (BCNA) who explained that the multiple services rule prevents patients from accessing the Medicare rebate for the second procedure. For example, in instances of breast cancer diagnostic ultrasounds being followed by a core biopsy to confirm an ultrasound diagnostic result, patients wishing to access the Medicare rebate are required to return the following day to have that procedure.⁴⁰

2.41 Rules applying to the payment of Medicare benefits for multiple diagnostic imaging services were put in place to reflect efficiencies to the provider when multiple services are provided to a patient at the same attendance or on the same day. Providers have a responsibility to ensure they are reflecting these efficiencies in the costs they pass on to patients, rather than encouraging multiple visits.

2.42 BCNA's observations were supported by the Australasian Society for Ultrasound in Medicine which provided the committee with the example of a patient who attended a clinic with a breast lump:

...a patient who attends an imaging centre with a breast lump will have their mammogram and ultrasound performed. However, [sic] if it is decided that the patient requires a biopsy or aspiration for their own benefit and diagnosis, either the patient pays out-of-pocket or would need to return delaying the diagnosis or potentially no conclusive diagnosis at all.⁴¹

2.43 The committee raised the issue of referral pathways for regional, rural and remote patients with the Department. On notice, the Department responded to evidence provided by the BCNA regarding diagnostic ultrasound and ultrasound core biopsy. It explained that the rules that apply to payment of Medicare benefits when multiple diagnostic services are provided are:

38 QNMU, *Submission 13*, p. 3.

39 Mrs Baxter, *Committee Hansard*, 9 November 2017, p. 30; Professor Mark Khangure, Councillor, AMA, *Committee Hansard*, 9 November 2017, p. 2.

40 Ms Danielle Spence, Director of Policy and Advocacy, Breast Cancer Network Australia (BCNA), *Committee Hansard*, 13 December 2017, p. 18.

41 Australasian Society for Ultrasound in Medicine, *Submission 11*, p. 4.

...long-standing and were developed in conjunction with the diagnostic imaging profession. The rules reflect efficiencies to the provider when multiple services are provided to a patient at the same attendance or on the same day.⁴²

2.44 For ultrasound services, the Department stated that Medicare benefits are payable 'for one ultrasound examination performed within a three hour period on the same day'. The Department reconfirmed that the 'multiple services rules are being considered by the Medicare Benefits Schedule Review Taskforce'.⁴³

2.45 However, the AMA called for the Medicare system and the referral pathways for diagnostic imaging services to be:

...rationalised to prevent people living in the country having to travel back and forth to obtain multiple referrals as they move along the diagnostic and treatment pathway.⁴⁴

Teleradiology

2.46 New and innovative technological advancements have improved the accessibility of diagnostic imaging services, in particular for patients based in regional, rural and remote communities.⁴⁵ A large number of submitters told the committee of how telemedicine⁴⁶ has supported the work of diagnostic imaging clinicians, streamlined visits for patients and co-ordinating support for patients.⁴⁷ The Australian College of Rural and Remote Medicine (ACRRM) noted that telehealth (telemedicine) supports rural and regional diagnostic imaging services by increasing the 'accessibility and equity for rural and regional areas where it is difficult or impractical to recruit and retain radiologists.'⁴⁸ Further, the ACRRM reported that the use of telehealth in outer-metropolitan Brisbane had saved Redcliffe Hospital \$50 000 in one year alone.⁴⁹

42 Department, answers to questions on notice, 13 December 2017 [p. 10] (received 5 February 2018).

43 Department, answers to questions on notice, 13 December 2017 [p. 10] (received 5 February 2018).

44 AMA, *Submission 7*, p. 5.

45 ACRRM, *Submission 4*, p. 4.

46 ACRRM define teleradiology as the transmission of diagnostic radiological images in digital form from the acquisition site to the reporting site for diagnosis and reporting by a clinical radiologist. See, ACRRM, *Submission 4*, p. 4.

47 Associate Professor Thomas Doolan, Chairman, Education and Training Committee, ACRRM, *Committee Hansard*, 13 December 2017, p. 51; Mr Jim Aspinwall, Director, X-Ray and Imaging, *Committee Hansard*, 13 December 2017, p. 43; Dr Gary Cohen, Radiologist, Primary Health Care Limited, *Committee Hansard*, 13 December 2017, p. 32, p. 34; Dr Peter Heathcote, President, Urological Society of Australia and New Zealand, *Committee Hansard*, 13 December 2017, p. 23; Ms Spence, *Committee Hansard*, 13 December 2017, p. 24; and A/Prof Lowe, *Committee Hansard*, 13 December 2017, p. 24.

48 ACRRM, *Submission 4*, p. 4.

49 A/Prof Doolan, *Committee Hansard*, 13 December 2017, p. 52.

2.47 In instances where telehealth is used, ASMIRT pointed out that it is important for the images or reports to be added to a patient's electronic health record. However, ASMIRT noted that this was often not the case, making comparison with earlier scans difficult.⁵⁰

2.48 Telehealth works where there is coordination between hospitals and a swift transfer of images, but ASMIRT also noted that this is not currently possible in Tasmania:

At present there is no way to send the patient images except by DVD and via Australia Post, although images are sent to the mainland every day for reporting by radiologists. The key issue relates to no data sharing amongst public hospitals. Although the mainland states have this capability, Tasmanians are told it is too expensive resulting in 500,000 people being disadvantaged by this and other e health provisions.⁵¹

2.49 Cancer Council Northern Territory noted that it too had encountered similar problems related to the sharing of images:

Lack of co-ordinated/ national approach for sharing of digital images and reports between private and public radiology services can potential[ly] delay management plans & treatment when remote clients attend surgical or other appointments. Valuable staffing resources can be wasted trying to facilitate this sharing of information.⁵²

Physical accessibility

2.50 Spinal Cord Injuries Australia (SCIA) advised the committee of the unique challenges faced by people with spinal cord injury and other physical disability accessing diagnostic imaging equipment. SCIA submitted that people reliant on mobility aids (manual and power wheelchairs):

...often encounter access barriers to services, facilities, transport, buildings and the built environment, including access to diagnostic imaging equipment, due to the geographical access barriers, or especially the physical access barriers to this equipment.⁵³

2.51 For example, it is often difficult or impossible for women with disability to have a mammogram because:

- mobile mammogram units may not have lift access;

50 ASMIRT, *Submission 24*, p. 5.

51 ASMIRT, *Submission 24*, p. 6.

52 Cancer Council Northern Territory, *Submission 6*, p. 2.

53 Spinal Cord Injury Australia (SCIA), *Submission 37*, p. 3.

- a mammogram service with the infrastructure for mobility aids may be located at a distance resulting in the women having to incur relatively expensive taxi services;⁵⁴ and
- mammogram equipment may not be designed for women in mobility aids.⁵⁵

2.52 SCIA also explained that people using mobility aids may not be able to undergo scans that require the 'patient to be transferred onto an imaging bed or examination table if there is no lifting hoist and sling'.⁵⁶ Further, rooms that house diagnostic imaging equipment may not have adequate floor space for the wheelchair user and a mobile floor hoist (if available).⁵⁷ For bone density scans, patients are required to be weighed, and in some diagnostic imaging facilities there may not be a hoist or sling with a weighing mechanism.⁵⁸

2.53 SCIA recommended that the Commonwealth Government engage with diagnostic imaging equipment companies to ensure equipment, particularly mammography equipment is designed for people using mobility aids. Further, diagnostic imaging practices should ensure that patients using mobility aids have access to:

- ceiling or mobile hoists and slings that come in various sizes;
- mobile mammography facilities with wheelchair hoists that are serviced regularly;
- weight measuring devices that are used on the hoists;
- appropriate information about, and financial assistance for, accessible transport services; and
- mammography facilities which can accommodate a mobility aid with non-detachable armrests.⁵⁹

Regulatory barriers to accessibility: cone beam computed tomography in Western Australia

2.54 Regulation can sometimes create access issues. For example, the committee heard that there are regulatory barriers associated with dental professionals accessing cone beam computed tomography (CBCT) in Western Australia.⁶⁰

54 SCIA noted that this service is expensive even if the patient is eligible for government funded taxi transport subsidy scheme. See, SCIA, *Submission 37*, p. 3.

55 SCIA, *Submission 37*, p. 3.

56 SCIA, *Submission 37*, p. 3.

57 SCIA, *Submission 37*, p. 3.

58 SCIA, *Submission 37*, p. 3.

59 SCIA, *Submission 37*, p. 4.

60 Mr Troy Williams, Chief Executive Officer, Australian Dental Industry Association, *Committee Hansard*, 9 November 2017, p. 12.

2.55 Mr Troy Williams of the Australian Dental Industry Association outlined the benefit of this technology for dentists and allied professionals, such as orthodontists, explaining that health-care professionals use CBCT for a number of purposes, including:

... to produce 3-D digital images of teeth, soft tissue, nerve pathways and bone, and they can do it all with a single scan.⁶¹

2.56 The committee was informed that in Western Australia current restrictions mean that very few practitioners are able to own and operate this equipment.⁶²

2.57 The committee heard that, with the exception of Western Australia, healthcare professionals who wish to use the CBCT equipment are subject to only limited regulation:

...[professionals] must be registered with the Australian Health Practitioner Regulation Agency, usually via the Dental Board of Australia. There is then a requirement to possess experience in radiation safety, and often the professional will have completed a short course covering radiation safety, along with the operation of the CBCT equipment.⁶³

2.58 Mr Williams outlined that regulatory requirements in Western Australia require a dentist to be registered with the Australian Health Practitioner Regulation Agency in the speciality of dental maxillofacial radiology.⁶⁴ Mr Williams noted that '[a]lmost none of Western Australia's 1,780-odd dentists satisfy this requirement', with the result that Western Australia physicians have 'restricted access to this equipment'.⁶⁵

2.59 Mr Williams explained that these restrictions have limited the access of Western Australians to this technology:

The estimate on the number of CBCT machines used nationally in dentistry varies depending on the dataset, but it's estimated to be between 360 and 420 machines nationally. What is known is that fewer than 10 of these are in Western Australia. Clearly, access to this important diagnostic technology is an issue for those in Western Australia.⁶⁶

2.60 Mr Williams accepted that a uniform approach to CBCT regulation was not possible due to constitutional limitations, but he suggested it was important for the committee to understand the nature of these restrictions because it affected other parts of the health system:

61 Mr Williams, *Committee Hansard*, 9 November 2017, p. 12.

62 Australian Dental Industry Association, *Submission 12*, p. 3.

63 Mr Williams, *Committee Hansard*, 9 November 2017, p. 12.

64 Mr Williams, *Committee Hansard*, 9 November 2017, p. 12.

65 Mr Williams, *Committee Hansard*, 9 November 2017, p. 12.

66 Mr Williams, *Committee Hansard*, 9 November 2017, p. 12.

...there is an additional cost burden on the patient, particularly in Western Australia. So if you're in Bunbury, if you're in Broome, if you're in Karratha, the access to that technology is just not available...So it's a case of highlighting it and raising it with the Western Australian government in terms of broader health economics. It's either resulting in patients not getting the level of diagnosis and care that's appropriate to them, which manifests itself in costs otherwise or, in some cases—at the patient's expense and the broader healthcare system—of them travelling to Perth to get access to the technology. It is understood that the Commonwealth's powers in this area are limited...⁶⁷

2.61 Despite this, Mr Williams informed the committee that some reform may be forthcoming in this area. The committee understands that the Radiological Council of Western Australia has met and proposed reforms to this system, with the result that:

Western Australia now looks set to cut the red tape associated with owning CBCT digital imaging equipment. It's been proposed that registered dentists who have successfully completed a recognised CBCT course be able to apply for a licence to own and operate the equipment. The council looks set to recognise courses offered by the School of Dentistry at the University of Queensland and by the Adelaide Dental School, within the University of Adelaide and with a course by a private provider. There'll be a requirement that all CBCT images must be reported on by an [Australian Health Practitioner Regulation Agency]-registered radiologist or a dentomaxillofacial radiologist. As part of the initial registration of the CBCT equipment with the council, dentists will need to provide confirmation of a service agreement from the radiologist or the dentomaxillofacial radiologist.⁶⁸

2.62 However, the Australian Dental Industry Association opposes the aspect of the proposed reform that the operation of the CBCT equipment will be limited only to dentists who will not be permitted to direct and supervise other practitioners in the use of the unit.⁶⁹

Committee view

2.63 The committee considers that Australians should, to the greatest degree possible, have equitable access to quality medical care, including diagnostic imaging services.

2.64 The current geographical variation in diagnostic imaging equipment is greater between urban and rural areas than between the states and territories. To that extent, patient transport subsidies are especially important to rural patients. The committee notes that the existing state-funded patient transport subsidies are currently not sufficient to alleviate the financial burden placed on regional, rural and remote patients who are required to travel for diagnostic scans.

67 Mr Williams, *Committee Hansard*, 9 November 2017, p. 13.

68 Mr Williams, *Committee Hansard*, 9 November 2017, p. 12.

69 Mr Williams, *Committee Hansard*, 9 November 2017, p. 12.

2.65 The committee is concerned that the implementation of the multiple services rule requires patients to incur additional delays and costs in accessing services and treatment. The committee is particularly concerned about the impact this rule has on rural and remote Australians. The committee understands that the MBS multiple services rule is currently subject to review by the MBS Review Taskforce. The committee urges the MBS Review Taskforce to carefully consider the impact this rule is having on patients.

2.66 The committee is concerned and disappointed by reports that many diagnostic imaging services are not physically accessible for people with disability. The committee considers that this underscores the need for government and others to redouble their efforts to create accessible communities, as noted by the committee in its recent inquiry into the National Disability Strategy.⁷⁰

2.67 The committee agrees that the current restrictions in place in Western Australia for the use of CBCT seem to have hampered the access of Western Australians to this technology. The committee welcomes the discussions between the Western Australian Government and the Radiological Council of Western Australia and the Australian Dental Industry Association and expects that a suitable resolution can be found.

70 Committee, *Delivery of outcomes under the National Disability Strategy 2010–2020 to build inclusive and accessible communities*, November 2017, pp. 71–72.

