Chapter 1
Introduction

1.1 Diagnostic imaging is a vital component of the health system and assists health care professionals with the 'appropriate initial diagnosis and ongoing assessment of many medical conditions'.\(^1\) There are various diagnostic imaging modalities and techniques used by clinical professionals, including:

- ultrasound;
- computed tomography (CT);
- diagnostic radiology (such as x-ray and mammography);
- magnetic resonance imaging (MRI); and
- nuclear medicine imaging, such as positron emission tomography (PET).\(^2\)

1.2 This inquiry considered key issues relating to diagnostic imaging services, including geographic disparities, Commonwealth subsidies, the costs for non-subsidised services, and how governments can improve accessibility to these essential services.

1.3 While the terms of the committee's inquiry encapsulates all modalities of diagnostic imaging, licensing issues relating to MRI machines were a prominent subject of concern amongst submitters. Submitters concerns, and potential avenues for reform, are detailed in chapter three.

Diagnostic imaging framework

1.4 The Commonwealth Government has no role in the direct delivery of diagnostic imaging services, but funds diagnostic imaging services through the Medicare Benefits Schedule (MBS) and the National Health Reform Agreement (NHRA). Service delivery and the placement of diagnostic imaging services is the responsibility of private providers and state and territory governments.\(^3\)

1.5 The Commonwealth Government regulates Medicare-eligible diagnostic imaging equipment through three main pieces of legislation. These are:

- the *Health Insurance Act 1973*;
- the Health Insurance Regulations 1975; and
- the Health Insurance (Diagnostic Imaging Services Table) Regulations 2017 (DIST).\(^4\)

\(^1\) Department of Health (Department), *Submission 18*, p. 5.
\(^2\) Department, *Submission 18*, p. 5.
\(^3\) Department, *Submission 18*, p. 33.
\(^4\) Department, *Submission 18*, p. 9.
The Department of Health (Department) administers Commonwealth funding for diagnostic imaging services through the MBS and the NHRA.  

Diagnostic imaging is a significant part of the MBS budget. In 2016–17, diagnostic imaging accounted for seven per cent of all MBS-funded services and cost the Commonwealth $3.4 billion.

Issues relating to funding and the MBS are considered in greater detail in chapter five.

**National Health Reform Agreement**

The NHRA is an agreement between Commonwealth, state and territory governments that establishes the financial and governance arrangements for Australia's public hospital services, including diagnostic imaging services.

The Commonwealth, under the NHRA, contributes to the cost of delivering public hospital services primarily through activity-based funding, which 'ensures funding is provided to hospitals based on the volume and type of services delivered to patients'.

Under the NHRA, the states and territories have committed to:

...provide eligible patients with diagnostic imaging services through the public hospital system free of charge, on the basis of clinical need and within a clinically appropriate period.

The NHRA also enables public hospital patients to be treated as private patients and:

...charges to be raised where medical practitioners at the hospital have provided the service under rights of private practice arrangements. These services are funded through a combination of MBS benefits, private health insurance (admitted and hospital substitute patients), and individual patient contributions.

**Diagnostic Imaging Accreditation Scheme**

The Diagnostic Imaging Accreditation Scheme (DIAS), established under the Health Insurance Act 1973 and administered by the Department, ensures that diagnostic imaging services eligible under the MBS 'are safe, effective and responsive to the needs of health care consumers and provided by practices which meet specified

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5 Department, Submission 18, p. 5.
6 Department, Submission 18, p. 17.
7 Department, Submission 18, p. 33.
8 However, the Commonwealth continues to provide block funding to some smaller hospitals. Department, Submission 18, p. 33.
9 Department, Submission 18, p. 33.
10 Department, Submission 18, p. 33.
quality standards'. The DIAS 'links mandatory accreditations to the payment of Medicare benefits for diagnostic imaging services listed in the DIST'.

1.14 Diagnostic imaging services not accredited under the DIAS are unable to provide Medicare-funded diagnostic imaging services to patients. In these circumstances, service providers are required to inform patients that 'a practice is not accredited and that a Medicare benefit is not payable before providing diagnostic imaging services'.

1.15 The Department advised the committee that as of 31 March 2017, there were 3982 diagnostic services accredited under the DIAS.

Other ongoing reviews

1.16 The committee is aware that there are other ongoing reviews relating to diagnostic equipment and services, such as the MBS review.

MBS Review Taskforce

1.17 On 22 April 2015, the former Minister for Health, the Hon. Sussan Ley MP, announced the establishment of the MBS Review Taskforce to conduct a review of the MBS. The purpose of the MBS review is to consider how MBS items could better align 'with contemporary clinical evidence and practice and improve health outcomes for patients'. All diagnostic imaging items listed on the MBS are included in the MBS review. In order to undertake this review, five specialised clinical committees were established, including the Diagnostic Imaging Clinical Committee.

1.18 To date, the MBS Review Taskforce has identified a number of obsolete MBS items and established specialised working groups to address priority areas, including:

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11 Department, Submission 18, p. 30.
12 Department, Submission 18, p. 30.
15 Department, Submission 18, p. 30.
18 Department, Submission 18, p. 24.
• the breast imaging working group;
• the imaging of the knee working group;
• the imaging for pulmonary embolism and deep vein thrombosis working group;
• nuclear medicine working group;
• upper and lower limb working group; and
• the vascular surgery and interventional radiology working group.\textsuperscript{20}

1.19 As of January 2018, the MBS Review Taskforce had made two tranches of recommendations relating to bone densitometry and low back pain.\textsuperscript{21}

1.20 The Department submitted that, as a result of the review, the government had implemented the findings of the reports on reducing unnecessary spinal x-rays\textsuperscript{22} (to be implemented November 2017) and the removal of obsolete items (as of 1 July 2016) from the MBS.\textsuperscript{23}

1.21 Further reports released by the review for consultation include:
• cardiac services;
• knee imaging;
• pulmonary embolism and deep vein thrombosis;
• the removal of obsolete items; and
• reducing unnecessary spinal x-rays.\textsuperscript{24}

Key advisory groups

1.22 In addition to the MBS review, other key advisory groups are:\textsuperscript{25}

\begin{itemize}
\item Department, \textit{Submission 18}, p. 24.
\item The MBS review found that the use of imaging of the lower back (three and four regions) by whole spine x-rays was not associated with clinical benefit and exposed patients to unnecessary doses of radiation. The majority of the 130 000 three region x-rays were requested by chiropractors. Subsequently, the government 'decided to remove the ability of chiropractors to request these [x]-rays'. See, Department, \textit{Reducing unnecessary spinal x-rays}, 22 August 2017, \url{http://www.health.gov.au/internet/main/publishing.nsf/content/MBSR-reducing-unnecessary-spinal-x-rays} (accessed 31 January 2018).
\item Department, \textit{Submission 18}, p. 24.
\item For full membership of the Diagnostic Imaging Advisory Committee and Diagnostic Imaging Accreditation Scheme Advisory Committee, see Department, \textit{Submission 18}, pp. 43–44.
\end{itemize}
• the **Diagnostic Imaging Advisory Committee** that acts as a forum for the Department to engage with the diagnostic imaging industry, clinicians and consumer representatives to seek advice on diagnostic imaging matters relating to the MBS;\(^{26}\)

• the **Diagnostic Imaging Accreditation Scheme Advisory Committee** that provides the Department with advice about the quality and safety standards of practice for MBS funded diagnostic imaging and the development of policy under the DIAS;\(^{27}\)

• the **Medical Services Advisory Committee**, an independent non-statutory body that appraises new medical services, reviews existing services and provides advice to government on whether new medical services should be publicly funded.\(^{28}\)

1.23 The Department also formally and informally engages with diagnostic imaging professionals, industry groups, consumers and other stakeholders to develop policy advice for diagnostic imaging services.\(^{29}\)

**Quality Framework for Diagnostic Imaging**

1.24 The Royal Australian and New Zealand College of Radiologists (RANZCR) and the Australian Diagnostic Imaging Association (ADIA), independently of government, developed a *Quality Framework for Diagnostic Imaging* (Quality Framework) in order to ensure Australia's diagnostic imaging services are:

> …underpinned by a regulatory framework which ensures practices – both private and public – can continue to provide patients across the country with high-quality, safe and affordable services.\(^{30}\)

1.25 The priority issues addressed in the Quality Framework are:

• ensuring patients have access to Medicare-funded CT services in radiologist-supervised practices;

• patient access to radiologist supervised diagnostic mammography and musculoskeletal ultrasound services;

• quality protocols for remote reporting of images (for images taken at a different location than the place the reporting practitioner is located); and

• Medicare-funded ultrasound services to be performed by practitioners with an accepted minimum professional qualification.\(^{31}\)

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26 Department, *Submission 18*, p. 32.

27 Department, *Submission 18*, p. 32.

28 Department, *Submission 18*, p. 25.

29 Department, *Submission 18*, p. 7.

1.26 The Quality Framework is considered in more detail in chapter four.

**Report structure**

1.27 This report is presented in six chapters:

- this first chapter provides an overview of diagnostic imaging services in Australia and the conduct of the committee's inquiry;
- **Chapter 2** considers the distribution and accessibility of diagnostic imaging machines (other than MRI machines) around Australia;
- **Chapter 3** examines the use of MRI in Australia, in particular, the existing MRI referral pathways (including the current licensing scheme) and its impact on the health system;
- **Chapter 4** addresses the diagnostic imaging workforce, including the shortage of radiologists, radiographers and sonographers;
- **Chapter 5** considers the effect of the MBS items for patients and service providers, and the effect of capital sensitivity rules;
- **Chapter 6** concludes the committee's considerations and contains the committee's recommendations.

**Conduct of the inquiry**

1.28 On 17 August 2017, the Senate referred the availability and accessibility of diagnostic imaging equipment around Australia to the Senate Community Affairs References Committee (committee) for inquiry and report by 5 December 2017 with the following terms of reference:

   a. geographic and other disparities in access to diagnostic imaging equipment;
   b. arrangements for Commonwealth subsidy of diagnostic imaging equipment and services;
   c. out-of-pocket costs for services that are not subsidised by the Commonwealth and the impact of these on patients; and
   d. the respective roles of the Commonwealth, states and other funders in ensuring access to diagnostic imaging services.\(^{32}\)

1.29 On 16 November 2017, the Senate granted the committee an extension of time for reporting until 7 March 2018 and on 7 March 2018 the Senate granted the committee an extension of time for reporting until 9 March 2018.\(^{33}\)

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32 *Journals of the Senate*, No. 55, 17 August 2017, p. 1760.

Submissions

1.30 The committee's inquiry was advertised on the committee's website and the committee wrote to 192 stakeholders inviting them to make submissions.34

1.31 The committee invited submissions to be lodged by 6 October 2017.

1.32 In total, the committee received 45 submissions. A list of submissions provided to the committee is available on the committee's webpage and at Appendix 1.

Public hearings

1.33 The committee held two public hearings: one in Perth on 9 November 2017 and one in Brisbane on 13 December 2017.

1.34 A list of the witnesses who provided evidence at the public hearings is available at Appendix 2.

1.35 The committee thanks all those who contributed to the inquiry.

Note on references

1.36 All references to Committee Hansard are to proof transcripts. Page numbers may vary between proof and official transcripts.

34 The committee's inquiry website can be located at: https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Community_Affairs/Diagnosticimaging (accessed 1 February 2018).