



**SUBMISSION TO THE NATIONAL HEALTH AND HOSPITALS
REFORM COMMISSION**

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Executive Summary

Diagnostic imaging (DI) services in Australia are currently provided by public hospitals (35-40%) and private imaging practices (60-65%). It is estimated that approximately 70% of DI services are now funded through Medicare and this is increasing. For the past 10 years Medicare outlays for DI services have been managed under capped MOU arrangements.

Over the last 10 years, there has been a technology revolution in diagnostic imaging that has made radiology examinations more essential in the management of all clinical episodes. In many instances diagnostic imaging has replaced unreliable hands-on clinical diagnosis and high cost investigative surgery.

The importance of diagnostic imaging to early diagnosis and treatment, intervention through non-invasive patient care pathways is well recognised but the use of these procedures needs to be better recognised as a cost effective investment in enhanced patient outcomes.

Current State of DI Funding

The Government's management of Medicare funding for DI through artificial capped MOU arrangements has resulted in:

- Patient rebates being capped at the level they were ten years ago;
- Government paying up to 36% less in real terms for diagnostic imaging services;
- Patients paying twice as much for services as they were ten years ago and bearing the brunt of increasing service costs. The table below demonstrates what is really happening:
- Government not having the health policy and funding frameworks structures in place to ensure that funding for diagnostic imaging is applied most effectively toward appropriate imaging. Capped funding ignores the full clinical value of diagnostic imaging and has led to the ongoing funding of outmoded and clinically dangerous practices;
- Reduced private sector investment in diagnostic imaging and closure of services and practices that have become unviable, particularly in non-metro areas and in areas that demand high levels of bulk billing;
- Restricted access to MRI which is often the most appropriate and safest service for patients; and
- The Government being poorly equipped to manage future expenditure on diagnostic imaging.

The real story

Service	Government contribution					Patient contribution	
	Rebate		Variation over 10 years			Average Variation over 4 years	
	1998	2007	Actual	CPI adj			
CT Scan Chest	\$259.30	\$250.75	3%	↓	31%	23%	↑ CT Services
X-Ray Spine	\$50.15	\$46.85	7%	↓	36%	28%	↑ X-Ray Services
MRI Scan Head	\$424.60	\$342.75	19%	↓	57%	26%	↑ MRI Services
Vascular Ultrasound	\$147.00	\$144.10	2%	↓	30%	43%	↑ Ultrasound Services

Future DI Funding Opportunities and Challenges

Looking to the future, although diagnostic imaging is becoming the fastest growing component of medical costs world wide, it has the capacity to deliver considerable value to Government in terms of health outcomes and overall savings in health care costs.

In Australia, increasing use of diagnostic imaging is being driven by both demographic and non-demographic factors. Population growth, ageing, new technology, increasing private patient services in public hospitals and strong consumer demand/expectations are all driving growth in Medicare funded diagnostic imaging services and outlays.

Alarming, before any adjustment to the current level of patient rebates due under the current MOU:

- *services growth is forecast by ADIA to increase by between 2.9% (low) and 5% (high) per annum over the next 5 years, and*
- *expenditure, due to a trend toward more complex services, is forecast by ADIA to increase by between 3.8% (low) and 7.0% (high) per annum over the next five years.*

Principles for Future Funding

ADIA recommends that future funding of diagnostic imaging services in Australia be based on the following principles:

- *Alignment: Alignment on objectives would be improved if Government adopted a policy framework which covers MBS funding of diagnostic imaging services.*
- *Affordable access: To address current inequities, specific measures should be introduced to protect the disadvantaged from increasing diagnostic imaging gaps.*
- *Funding Framework: The current capped MOU funding structure, which is artificial and ineffective, should be abandoned. Fiscal restraint should be applied by rebalancing the Diagnostic Imaging Services Table (DIST) within the MBS – and only applying rebates to arms length referrals, appropriate imaging and procedures that support best medical practice. To achieve this, the MBS needs to reflect an evidence base and service costs. Future funding must be indexed annually in line with the MBS and MRI rebates in particular need to increase to reflect service costs.*
- *Better healthcare: Access to MRI services needs to be improved and to realise the value of diagnostic imaging services to the Government's preventative health and early diagnosis agenda, there should be an active review of the potential value of relevant diagnostic imaging services and an investment in research and education.*
- *Professional workforce: Future workforce needs require a continued and growing emphasis on College accredited training in both public and private sectors.*
- *Improved Efficiency: Practice efficiency can be realised through improvements in workforce capacity, ehealth, technology and systems.*
- *Quality Care: For quality to be realised through a quality improvement program, practice accreditation and continuing professional development.*
- *Competitive neutrality: Public hospitals should be required to apply principles of competitive neutrality in the setting of their fees for MBS services. The lower in-patient rebate of 75% should apply to all public hospital services claimed (that is both in-patient and out-patient services) on the MBS to offset the different cost structures and the contribution of the state and territory governments to the cost of delivering the services.*

Medicare Benefits Schedule

A mechanism is needed to establish the DIST as a more effective tool for managing the provision of appropriate services as well as for allocating Government funding for diagnostic imaging services. A total systematic review of the DIST would be a major undertaking and ADIA considers that an incremental approach would be more manageable.

The resources of the Medical Services Advisory Committee (MSAC) need to be expanded to reduce current delays and to manage the proposed review of the DIST. A new Diagnostic Imaging Services Table Committee is also recommended to support the MSAC role by undertaking front end and back end processes related to the assessment and take up of new DI procedures into practice that will be critical if the DIST is to be the funding allocation mechanism.

Future Management Structure

The Government has indicated that the current MoUs will not be renewed when they expire on 30 June 2008. To meet the challenges ahead, ADIA recommends a new approach to the management of Medicare funded DI services involving a Radiology Services Committee (RSC) supported by three Committees focused respectively on Program Implementation, Reform of the DIST and Quality Diagnostic Imaging Services:

Appropriate Referral

With this structure in mind and to complement the recommended review of the DIST, there is a pressing need for government to be able to influence some of the key drivers of growth in diagnostic imaging. Amongst other initiatives, ADIA recommends that the Government support (and fund) extension of a trial being undertaken in Tasmania to incorporate a proposed joint Divisions of GP and ADIA trial of electronic referral and decision support for MRI.

Budget Impact

Increased funding will be needed to meet the diagnostic imaging needs of the Australian community and to support the collaborative efforts of the key stakeholders to assist the Government to manage MBS outlays for diagnostic imaging services.

Summary of Key Recommendations

3. Future Trends and Drivers of Growth

ADIA recommends that

- The Government base its forward estimates for diagnostic imaging outlays on realistic projections of growth
- Efforts to contain growth in outlays should focus on the drivers of growth that the MBS can influence, i.e.: incidence rates and trend towards more complex services.

4. Principles for Future Funding

ADIA recommends that

- Capped funding be abandoned
- Future funding be based on 8 principles that underpin direction of government funding toward appropriate imaging

5. Policy Framework

ADIA proposes adoption of four pillars of policy covering delivery of diagnostic imaging services upon which a broad, flexible and adaptable policy framework can be constructed to ensure affordable patient access for all Australians to quality services delivered by a skilled professional operating within a viable practice environment.

6. Access and Affordability

ADIA recommends that to address access and affordability, patient rebates generally need to be appropriate. Furthermore, to provide better access to the disadvantaged:

- MBS rebates for pensioners, health care card holders and children could increase to 100% of the scheduled fee. This would improve the viability of bulk billing of many marginal practices.
- Patients in rural areas could be paid a higher rebate to meet the higher cost of delivering services to rural and regional communities.

7. Medicare Benefits Schedule

ADIA recommends:

- A staged approach to a review of the DIST by MSAC to assist the Government to establish a DIST that is evidence based and that reflects current practice. The review will look at ::
 - The clinical relevance and restrictions applicable to items on the DIST;
 - Fees and relativities within the DIST;
 - New services that support quality care and radiologist input into the care plans of patients.
- The focus of MSAC should be expanded from cost constraint for managing new technologies to supporting value funding for all imaging services on the DIST. A more appropriate methodology for assessing the value of DI needs to be developed for use by MSAC in determining which diagnostic imaging services should be funded.

- ADIA recommends the establishment of the Diagnostic Imaging Services Table Committee to more systematically identify new and emerging technologies, and more systematically and rigorously determine appropriate fees and clinical guidelines to support ministerial approval.
- Extended use of diagnostic imaging in public prevention and early prevention programs.

8. General Fee Increase

ADIA recommends that annual MBS general fee increases at least should be applied to diagnostic imaging services.

9. MRI

ADIA recommends that:

MRI Rebate Increase

- The original \$475 fee be restored and an independent consultant be engaged to determine the current cost of providing MRI services and the appropriate level of rebate funding for MRI services.

New MRI Services

- While the current licensing arrangements are in place, new MRI services should be rebatable on a condition specific basis rather than on a machine specific basis.

Rights of referral by GPs

- Referral by GP's for MRI services should be considered in the context of improving patient access when the following issues are contemporaneously addressed:
 - The MRI rebate level needs to be restored (as above);
 - Access to Medicare rebates for new services is extended to currently unfunded MRI machines as long as they meet the requirements of eligibility;
 - The complex different arrangements that apply to the various MRI licences need to be regularised, including extension of the capacity to all service providers to charge fees above the rebate and removal of all price and bulk billing constraints;
 - Appropriate clinical indicators are developed and restrictions on MRI test substitution by radiologists are removed; and
 - Decision support tools are introduced to ensure imaging requests are appropriate.

Open Access

- ADIA proposes that consumers have access to appropriate, sustainable and affordable MRI services through open access.

10. Appropriate Referral

ADIA recommends that the Government:

- Support a proposed trial of electronic DI referral and results, with integrated decision support in Tasmania in conjunction with an existing trial with member divisions of General Practice Tasmania to deliver a secure electronic clinical messaging environment across Tasmania (hereafter referred to as the **Tasmanian Trial Proposal**).

- Adopt the proposed QUDI standard referral template, which allows for the inclusion of agreed clinical information on the patient, as part of the **Tasmanian Trial Proposal**.
- Advance electronic DI referral and results, which would lead to improved and more efficient communication between referring practitioners, DI providers and patients (**Tasmanian Trial Proposal**).
- Review self referral arrangements and develop recommendations to address conflicts of interest.
- Monitor referral practices through Medicare Australia.
- Limit the current Prohibited Practices legislation to pathology.
- Prohibit arrangements where there is a direct financial conflict of interest between the referrer and the provider of diagnostic imaging services. For example, joint ventures between referrers and providers where profits are shared.

11. Quality Imaging:

ADIA advocates the adoption of a code of practice for digital images, once finalised, by all diagnostic imaging providers and recommend that this code inform the standards for accreditation of practices

12. Professional Workforce

ADIA recommends that:

- Incentives are provided to encourage training in private sector practices.
- Offshore teleradiology by Australian registered radiologists should be permitted subject to meeting certain requirements.

13. Practice Efficiency

ADIA recommends that:

- A central storage repository be provided by the Government for digital images
- Government support improved infrastructure for electronic messaging
- Government make the required legislative changes to allow figurehead billing for diagnostic imaging services
- Anomalies in the DIST that disrupt efficient practice should be addressed in Stage 1 of the proposed review of the DIST.

14. Complimentary Private and Public Sector Service Delivery Model

ADIA recommends that:

- Government require hospitals to apply principles of competitive neutrality in the setting of their fees for MBS services;
- Government apply the lower in-hospital rebate of 75% to all public hospital services claimed on the MBS;
- Government engage with RANZCR and ADIA as it considers health system funding options given the unique combination of investment and service funding applicable to diagnostic imaging.

15. Future Management of Radiology Services

ADIA could only support an approach that embraces the following key functions through an outcomes based framework with clearly defined responsibilities and accountabilities. ADIA recommends that:

- Radiology services be managed by a Radiology Services Committee (RSC)) supported by three Committees *focused respectively on Program Implementation, Reform of the DIST and Quality Diagnostic Imaging Services*.
- A new Radiology Action Program (RAP) be established to focus on implementation of an agreed 5 year action plan to effect changes in the management and delivery of radiology services. The five year action plan recommended by ADIA includes the Tasmanian Trial of decision support and electronic referral, implementation of eHealth initiatives, practice accreditation and other initiatives agreed in the funding agreement to better manage funding.
- A Diagnostic Imaging Services Table Committee (DISTC) be established by the Department along similar lines to the Pathology Services Table Committee. MSAC should be resourced and expanded to assess an increasing number of diagnostic imaging services.
- The learnings from the current Quality Use of Diagnostic Imaging Program (QUDI) should be further progressed within a more defined framework with strategic leadership provided by the RSC. The scope of the QUDI II program could cover research and development of an evidence base for quality care and professional guidelines to underpin the long term funding of appropriate and quality diagnostic imaging.

16. Budget Impact

ADIA recommends that

- **Increased funding be made available for DI rebates as follows:**
 - An across the board increase in rebates: 8% - 10%.
 - An MRI rebate increase – From \$342 to \$395 (average).
- **In relation to future funding for DI**
 - Forward estimates need to realistic to ensure that investment continues and patients can access affordable diagnostic imaging services. ADIA's medium forecast for the next 5 years is that services growth will increase by 4.4% (including 1.7% due to ageing alone) and expenditure growth before adjustment for rebate increase is 6.3% per annum.
 - DI rebates should be indexed on an annual basis at least in accordance with the WCI-5. This will increase expenditure growth to 8.3% per annum over the next five years (medium forecast) – Ultrasound by 8.2%, CT by 9.3%, diagnostic radiology by 4.4% and MRI by 14.1%.
 - A 10% increase in rebates from the frozen 1998 rebate levels will further increase expenditure growth to 9.3% per annum over the next five years (medium forecast) – Ultrasound by 9.3%, CT by 10.2%, diagnostic radiology by 5.1% and MRI by 15.1%.
 - Additional funding is needed for initiatives to improve access – e.g. 100% rebate for bulk billed services and for rural and remote services
 - Savings should be pursued through initiatives to improve competitive neutrality – e.g. 75% rebates for all public sector services
 - Funding for management, development and implementation activities including the RSC, QUDI RSAP, DISTC and MSAC.

1. Diagnostic Imaging in Australia

Over the last 10 years, there has been a technology revolution in diagnostic imaging that has made radiology examinations more essential in the management of all clinical episodes.

Before the advent of diagnostic imaging, the only diagnostic tools available were a hands-on clinical examination, and more recently investigative surgery. These methods were expensive, unreliable and in most cases repugnant to patients. In the last 10 years, these have been totally replaced with Ultrasound, CT, MRI etc – all of which are accurate and non-invasive. Diagnostic imaging is now used to triage all sick and injured patients.

The radiology technology revolution has been the most significant advance in the quality care of patients in 2000 years. There are multiple factors contributing to the increasing use of diagnostic imaging which will be discussed in this paper. The full clinical value of diagnostic imaging has not been recognised by government while outmoded and clinically dangerous practices have continued to be funded. Diagnostic imaging has been treated as a net additional cost to Government and capped for the past 10 years.

Without an effective underlying health policy, budgets cannot be defined and access to the high standards of patient care currently enjoyed by Australians will decline. This will have a serious impact on diagnostic imaging services and the specialty will not attract sufficient new trainees to meet the future demand.

In a recently commissioned report by Access Economics entitled “The Value of Diagnostic Imaging (March 2008)”¹, the following conclusions were made:

“The analysis demonstrates the substantial contribution that DI makes to health outcomes in Australia – in priority health areas such as preventing injuries (fractures), musculoskeletal disease (knee derangement), cardiovascular disease (AAA), cancer (of the breast), neurological disease (MS) and digestive disease (appendicitis). Without these diagnostic techniques, a less optimal allocation of resources and health outcomes would be achieved. In the top two interventions above, health costs are higher and health outcomes worse without DI. In the other cases, Australians achieve better health outcomes very cost effectively as a result of DI.

Notably, all the DI interventions focus on prevention and early intervention, a policy priority in Australia. Many of the interventions analysed are already part of public health programs in Australia.

- *For example, mammography is used in the BreastScreen program and, from April 2007, MRI is rapidly displacing arthroscopy to diagnose IDK (much of which is publicly funded) and additional funding has been provided for DEXA scans and treatment with alendronate for women with osteoporosis aged over 70 years.*
- *However, the analysis here suggests that DEXA scans and bisphosphonate therapy may be potentially cost effective for younger post-menopausal women also, if the full costs of fractures are taken into account, because of the high opportunity cost of informal care, which is not typically included in Australian Government CEA's, due to the silo nature of funding programs. Similarly, CT vs US for appendicitis is shown to be less cost effective (\$69,470/DALY averted) if productivity costs are excluded.*
 - *A recommendation is thus that the full economic costs of conditions (including the potential productivity losses of people with health conditions or their informal carers) are considered when assessing the cost effectiveness of potential public health programs.*

- *The analysis is particularly important in identifying the cost effectiveness for MRI in diagnosing MS and early pharmacological therapy, which is not yet established in Australia and could greatly enhance the health outcomes of over 16,000 Australians with MS.*
- *Other important novel findings are the value CT in diagnosing appendicitis and the value of US in diagnosing AAA for older men.*

In conclusion, all the case studies demonstrate the value of DI services in cost effectively contributing to enhanced health outcomes in Australia. Further CEA's are recommended on a case by case basis to assess the value (including health and productivity gains) of extended public prevention and early intervention programs that utilise DI techniques, given the evidence from the analysis."

Diagnostic imaging has the potential to play a much greater role in preventative health and early intervention. The potential savings to the health system are significant. Medibank Private CEO George Savvides says that:

"Out of Medibank's \$2.6 Billion claims a year, \$1.8 Billion are for hospital claims, of which 50 percent of the claims come from 1 percent of our members who suffer from chronic diseases. If we can provide them with better health management and help them to be less sick, then they would not have to claim as much. If claims shrink by 1 percent it would increase our bottom line by 25 percent. This means we can lower our premium increases and make private health insurance more affordable and at the same time make our members healthier.", Teresa Ooi, p29, Australian, 11 February 2008.

ADIA recommends that the Government, as the payer for MBS services, take a much more holistic approach to its funding of diagnostic imaging.

The more the Government spends on **appropriate** imaging potentially the more the Government saves.

¹ This report is available to download at <http://www.adia.asn.au/media>

2. Current State of Funding

Over the past 10 years, the Government has tried to manage its Medicare expenditure on Radiology services, representing more than 75% of total Medicare expenditure on diagnostic imaging services, through capped MOU funding agreements between the Government, RANZCR and ADIA.

The outcome of these arrangements has been to keep patient rebates at their 1998 levels for 10 years. This has potentially been effective in containing government expenditure on diagnostic imaging, however, this has been at a cost to the industry and to patients.

Under the current arms length referral arrangements, radiologists have no effective means of controlling demand for DI services or of ensuring that imaging requests are appropriate to the needs of patients. The premises underpinning the application of fixed price/volume growth rates under the MOU, that radiologists can manage outlays when they have no control over the inputs or that a capital intensive industry such as DI can continue to deliver efficiency gains, are fundamentally flawed.

The past 10 years of capped funding arrangements has lead to the Government now being poorly equipped to manage future expenditure on diagnostic imaging.

2.1. Lowest Level of MBS Funding

Over the past 10 years (1997/1998 – 2006/2007) diagnostic imaging benefits per service have fallen in real terms between 18% and 36%. The following table shows what is really happening.

The real story

Service	Government contribution				Patient contribution		
	Rebate		Variation over 10 years		Average Variation over 4 years		
	1998	2007	Actual	CPI adj			
CT Scan Chest	\$259.30	\$250.75	3%	↓ 31%	23%	↑	CT Services
X-Ray Spine	\$50.15	\$46.85	7%	↓ 36%	28%	↑	X-Ray Services
MRI Scan Head	\$424.60	\$342.75	19%	↓ 57%	26%	↑	MRI Services
Vascular Ultrasound	\$147.00	\$144.10	2%	↓ 30%	43%	↑	Ultrasound Services

No other practice area has experienced a decline in income of the order of that experienced by diagnostic imaging. Over the same period, GP's have experienced a 25% increase in benefits per service. If benefits per service had simply matched CPI then the industry would have made an estimated extra \$2.3 billion between 1998/1999 and 2007/2008 without adjustment for EMSN (Attachment B).

A *Medicare Benefits Schedule Comparative Review of Radiology Rebates in 1998 and 2007* prepared by ADIA and RANZCR, available to download at <http://www.adia.asn.au/media>, shows that rebates for diagnostic imaging are dollar for dollar generally less than they were 10 years ago.

2.2. Poor Policy Framework

The distractions of managing claims under the capped MOU's has meant that specialist radiologist expertise through RANZCR and ADIA on the RMC has not been directed towards improving the funding checks and balances within the Government's MBS listing, pricing, referral and claiming frameworks. The MBS and referral frameworks are not the most effective means of directing funding for diagnostic imaging.

2.3. Reducing Private Sector Investment

Investment in private sector diagnostic imaging is declining, with returns at an unacceptably low level, and increasing competition from the public sector (**Attachment C**).

2.4. Inadequate Access to Essential Diagnostic Imaging Services

Access to MRI services continues to be restricted when MRI is often the most appropriate service and presents the least risk to patients.

3. Future Trends and Drivers of Growth

3.1. Drivers of Growth

Increasing use of diagnostic imaging is being driven by both demographic and non-demographic factors. Population growth, ageing, new technology, increasing private patient services in public hospitals and strong consumer demand/expectations are all driving growth to varying degrees in Medicare funded diagnostic imaging services and outlays. The impacts of the Government's policy initiatives to improve patient access to primary care have also been shown to be driving growth in MBS outlays for diagnostic imaging in more recent times.

Demographic analysis of trends in utilisation of diagnostic imaging by ADIA indicates that the impact of population ageing alone will contribute an average 1.7% p.a. to DI growth over the next five years. The incidence rate (number of services per 1000 population) varies across modalities and across age groups. Analysis over time shows that these incidence rates for all modalities (except DR) have been increasing in every age group over the past 10-12 years and this is serving to further compound the underlying impacts of population growth and ageing on DI growth. For example, the highest incidence rates in most modalities occur in age groups up to 75-79 years.

It is clear that some of the key drivers of growth cannot be influenced by Radiologists and efforts need to be focused on areas where growth in services can be influenced with a view to ensuring that services funded through Medicare are appropriate to meet the needs of the community.

3.2. Growth Projections

ADIA recently commissioned an analysis of future Radiology services and expenditure growth with a five year horizon. These forecasts took into account:

- population ageing and growth trends;
- differing incidence rates for each age group (incidence is the number of services per 1,000 person);
- differing average benefits per service for each age group;
- long term services growth trends, and
- the high growth rates over the last two years.

A range of scenarios were modelled without any adjustment to the level of rebates. On the basis of this modelling expenditure is forecast to increase from 3.8% (low) to 6.3% (medium/high) per annum over the next five years. In terms of drivers of growth, 1.7% is due to ageing, and the balance is due to the increasing levels of utilization and the increasing use of more complex diagnostic imaging services (**Attachment A**). These forecasts are most concerning given the desperate need for patient rebates to increase from their low 1998 level.

Drivers of Growth Recommendations:

ADIA recommends that:

- The Government base its forward estimates for diagnostic imaging outlays on realistic projections of growth
- Efforts to contain growth in outlays should focus on the drivers of growth that the MBS can influence, i.e.: incidence rates and trends towards more complex services.

4. Principles for Future Funding

Future funding arrangements must direct government funding to quality diagnostic imaging services that deliver overall value to the patient and Government. This will be a challenge given:

- the growth projections in services and expenditure;
- the increasing reliance of doctors and patients on diagnostic imaging services to treat and manage chronic disease and other health conditions, and
- the current inadequacy of the Diagnostic Imaging Services Table (DIST) framework within the MBS to most effectively allocate government funding for diagnostic imaging.

A range of factors need to be considered in establishing a new approach to future funding arrangements and these are addressed in the following sections, together with specific areas of focus that might form the basis of a future collaborative agreement between the industry and the Government. The current capped MOU funding structure, which is artificial and ineffective, should be abandoned and ADIA recommends that future funding of diagnostic imaging services in Australia be based on the following principles.

- Alignment: Alignment on objectives would be improved if Government adopted a policy framework covering MBS funding of diagnostic imaging services (see Section 5).
- Affordable access: To address current inequities, specific measures should be introduced to protect the disadvantaged from increasing diagnostic imaging gaps (see Section 6)
- Funding Framework: Fiscal restraint should be applied by rebalancing the DIST within the MBS – rebates should only apply to arms length referred services, appropriate imaging and procedures that support best medical practice. To achieve this, the MBS needs to reflect an evidence base and service costs. Future funding must be indexed annually in line with the MBS and MRI rebates in particular need to increase to reflect service costs. (see Sections 7, 8 and 9)
- Better healthcare: Access to MRI services needs to be improved and to realise the value of diagnostic imaging services to the Government's preventative health and early diagnosis agenda, there should be an active review of the potential value of relevant diagnostic imaging services and an investment in research and education. (see Section 1)
- Professional Workforce: Future workforce needs require a continued and growing emphasis on College accredited training in both public and private sectors. (see Section 12)
- Improved Efficiency: Practice efficiency can be realised through improvements in workforce capacity, eHealth, technology and systems. (see Sections 10 and 13)
- Quality Care: For quality to be realised through a quality improvement program, practice accreditation and continuing professional development.(see Section 11)
- Competitive neutrality: Public hospitals should be required to apply principles of competitive neutrality in the setting of their fees for MBS services. The lower in-patient rebate of 75% should apply to all public hospital services claimed on the MBS to offset the different cost structures and the contribution of state and territory governments to the cost of delivering the services. (see Section 14).

Principles for Future Funding Recommendations

ADIA recommends that:

- Capped funding be abandoned
- Future funding be based on 8 principles that underpin direction of government funding toward appropriate imaging

5. Policy Framework

ADIA is seeking government support for the adoption of a progressive policy framework to address the current and future challenges in the development of diagnostic service delivery to Australians which:

- Ensures best outcomes for patients
- Provides equitable access to services for patients
- Recognises the needs of referring practitioners
- Secures a viable economic framework for imaging professionals and practices.

Diagnostic imaging involves rapidly advancing medical specialist skills and technology that have changed the face of practice delivery. Significant ongoing investment is needed to meet the challenges of:

- the broader and more complex needs of general and specialist referring practitioners;
- growing patient expectations;
- ongoing improvement in the professional skills base;
- high levels of capital investment;
- driving improved efficiencies and economies; and
- future advances and changes in technology.

Advances in diagnostic imaging technologies have been pivotal to the delivery of superior health outcomes for patients. This has been accompanied by rising fiscal outlays by government in patient support payments through Medicare. With an ageing population and increasing patient expectations these trends are likely to continue.

Securing access for patients to appropriate diagnostic imaging services while concurrently providing diagnostic imaging practices with a viable economic operating environment and government with a fiscally sustainable outcome is the challenge shared by all stakeholders. These goals can only be achieved through a structured developmental framework which encompasses and balances the common and competing objectives of:

- Patients
- Referrers
- Providers
- Practice operators
- Health funds
- Government

Policy Framework Recommendation:

ADIA proposes adoption of four pillars of policy covering delivery of diagnostic imaging services upon which a broad, flexible and adaptable policy framework can be constructed to ensure affordable patient access for all Australians to quality services delivered by a skilled professional operating within a viable practice environment. **(Attachment D)**

6. Access and Affordability

Access and affordability are policy issues for the Government. Currently access is declining in non-metro areas and in areas with a population base that cannot fund increasing gaps and demand a high rate of bulk billing.

Diagnostic Radiology rebates in particular remain at the same level as in 1998 with no effective increase in price. Volume growth for these services has been well below the average 5% at 1.9% over the period of the MOU. Meanwhile these services have become unviable to deliver.

Evidence of practice closures and service closures has been provided in confidence to the Department of Health and Ageing. Meanwhile, the affordability of services for patients paying gaps has declined significantly. Statistics presented by the department show that though full time adult ordinary earnings have increased by 17.6% (2002 – 2007), patients paying gaps are paying 39.8% more over the same period. It would seem clear therefore that the current capped funding policy is hurting middle Australians – particularly working class Australians who are not pensioners or health care card holders.

Average bulk billing and average gap figures disguise the impact on patients. For example, MRI patients pay the highest average gap (\$138.60) and enjoy the lowest bulk billing rate (52%).

Access and Affordability Recommendations:

ADIA recommends that in order to address access and affordability, patient rebates generally need to be appropriate (discussed below). Furthermore, to provide better access to the disadvantaged:

- MBS rebates for pensioners, health care card holders and children could increase to 100% of the scheduled fee. This would improve the viability of bulk billing these patients for many marginal practices.
- Patients in rural areas could be paid a higher rebate to meet the higher cost of maintaining services in rural and regional communities.

7. Medicare Benefits Schedule

7.1. Funding Allocation through an Evidence-based DIST

Patients should have access to affordable evidence-based diagnostic imaging services when they need them.

To make the DIST within the MBS an effective means of allocating Government funding for diagnostic imaging services, the sector and the Government need a mechanism which can:

- Establish a schedule of items for diagnostic imaging that is evidence-based;
- Respond to advances in imaging technologies and emerging trends in imaging including new technologies, new applications of existing technologies, new procedures;
- Prioritise the listing of new technologies and review of older technologies; and
- Determine appropriate schedule fees, rebates and clinical guidelines.

The current DIST needs to be reviewed and a staged approach is recommended given the pressing need to ensure that funding is sustainable.

7.2. Current Issues with the DIST

The following examples highlight issues with the structure, rules and items in the current DIST which mitigate against the government achieving value (including savings) from appropriate, safe and efficient delivery of DI services:

- The DIST has 525 items. Analysis of utilization by item across each of the DIST modalities shows that close to 90% of all DI services are claimed against the top 20 items in each modality, i.e. 100 items. As new procedures have emerged, these have generally been added to the MBS but obsolete procedures have generally not been removed from the schedule over time. An initial review of the items in the DIST in terms of their relevance to the evidence base and current practice is indicated.
- A request for a diagnostic imaging service does not have to be in any particular form and there is no requirement in the regulations to put relevant clinical information on the request form. Under the MBS rules, the responsibility for the clinical relevance and necessity of a request for an “R” item rests with the referring practitioner. The structure of the schedule encourages referral for specific tests but provides limited scope within the rules for substitution of more appropriate tests by a specialist Radiologist, particularly in the case of MRI where the specialist Radiologist is not allowed to substitute an MRI for say an inappropriately requested CT procedure. The DI request process does not promote effective use of specialist radiologist expertise in determining the most appropriate imaging procedure, which in turn can lead to inappropriate or unnecessary imaging, further procedures and delays and inefficiencies in the patient care pathway.
- A recent Quality Use of Diagnostic Imaging (QUDI) Program report on Allied Health Referrals highlighted the need to determine MBS referral privileges based on clear evidence of the relevance of particular diagnostic tests to a practitioner's scope of practice. In this context such issues as the appropriateness of non-arms-length referral and the recent proposal for GP referral for MRI should also be considered.

Currently, MBS fees are historically based. After 10 years of no net increases, they are no longer reflective of current costs or current medical practice and should undergo a process of review within an agreed policy framework. Generally the fees effective on 1 November 2007 are the same as the fees that were effective on 1 November 1998 (refer to the RANZCR and ADIA document “Medicare Benefits Comparative Review of Radiology Rebates in 1998 and 2007” which is available to download at <http://www.adia.asn.au/media>)

Further, the level of rebates for different providers of services needs to be reviewed. For example, access to ‘R’ level rebates should only apply to arms-length requested services and not, for example, to self or same speciality referrals.

7.3. Staged Review of the DIST

The Diagnostic Imaging Services Table (DIST) in the MBS needs to be evidence-based and should support best medical practice, through a schedule that promotes the most efficient and effective treatment of patients. If this is achieved the DIST has the potential to be a more effective tool for managing the provision of appropriate services as well as outlays for diagnostic imaging.

A total systematic review of the DIST would be a major undertaking and ADIA considers that an incremental approach would be more manageable. This review would look at:

- the clinical relevance and restrictions applying to items on the DIST;
- the fees and relativities within the DIST; and
- new services that support quality care and radiologist input into the care plans of patients.

Some specific calls for new items relate to the following:

- Fees for Double Reads;
- Multi-disciplinary Care Team Fees – Chronic Care;
- Consulting Fees for Radiologists.

Radiologists provide high value specialist advice to other medical practitioners and this needs to be encouraged and recognised within the DIST.

7.4. Improve the Role of MSAC

The Medical Services Advisory Committee (MSAC) assessment process is part of the total process of getting new technologies into practice through listing onto the MBS. MSAC currently does not identify new or emerging technologies that should be assessed (the front end). Further, MSAC does not recommend the appropriate fee or clinical guidelines when it makes its recommendation to the Minister to accept a new technology (the back end). The Productivity Commission’s review of the impact of Advances in Medical Technology in 2005 found that there was duplication of health technology assessment (HTA) activities in Australia with fragmentation “along jurisdictional (national and State/Territory) and sectoral (public and private) lines. Complexity and duplication also reflects ad hoc development of HTA in reaction to technological advances and the budgetary pressures they have brought.....There would appear to be significant benefits available from adopting an overarching framework for coordinating HTA activities at the national level.”

For the DIST to become the means of funding allocation for the Government, ADIA recommends that:

- MSAC resources be expanded to reduce current process delays and to manage the staged review of the DIST recommended above; and

- a new Diagnostic Imaging Services Table committee be established to support MSAC's assessment role by undertaking the front end and back end processes that will be critical if the DIST is to be the funding allocation mechanism.

The focus of MSAC should be expanded from cost constraint for managing new technologies to supporting value funding for all imaging services on the DIST. A more appropriate methodology for assessment of the value of DI needs to be developed for use by MSAC in determining which diagnostic imaging services should be funded.

7.5. Diagnostic Imaging Services Table Committee (DISTC)

In the past there have been considerable delays between the identification of new/emerging technologies and the submission of applications to MSAC. ADIA recommends the establishment of the Diagnostic Imaging Services Table Committee (DISTC) to:

- more systematically identify new and emerging technologies;
- more systematically and rigorously determine recommended fees and clinical guidelines to support ministerial approval.

The proposed DISTC is akin to the Pathology Services Table Committee. ADIA believes that the combined role of MSAC and the proposed new DISTC are critical if the DIST is to include the most cost effective diagnostic imaging services.

Patient interests need to underpin the DIST, as well as the role of MSAC and the DISTC and this will require Government funding.

Pre-MSAC the DISTC would:

- monitor new technologies in DI that have been introduced successfully overseas;
- identify new technologies that are appropriate for use in Australia;
- review older technologies in light of new/emerging technologies;
- review and assess the status of the evidence in relation to the criteria for assessment of new technologies by MSAC;
- prioritise new technologies that would require further investigation prior to submission to MSAC; and
- prepare submissions for consideration by MSAC.

This role is similar to that undertaken by the Australian Safety and Efficacy Register of New Interventional Procedures - Surgical (ASERNIP-S) established in conjunction with the Royal Australasian College of Surgeons.

Post-MSAC the DISTC would use an agreed framework to determine the appropriate fee, and would determine clinical guidelines and restrictions, training requirements and conditions that apply to referrers.

This proposal will require significant resources, but will provide a more evidence-based and cost effective approach to the public funding of imaging procedures.

7.6. Diagnostic Imaging for Public Prevention and Early Intervention

Given the critical need to better manage chronic disease within Australia, ADIA also recommends that the Government engage in cost effectiveness analysis (CEA) on a case by case basis to assess the value (including health and productivity gains) of specific extended public prevention and early intervention programs that utilise DI techniques. This recommendation is based on evidence from the recently commissioned report by Access Economics entitled “The Value of Diagnostic Imaging,” (March 2008):

“The analysis demonstrates the substantial contribution that DI makes to health outcomes in Australia – in priority health areas such as preventing injuries (fractures), musculoskeletal disease (knee derangement), cardiovascular disease (AAA), cancer (of the breast), neurological disease (MS) and digestive disease (appendicitis). Without these diagnostic techniques, a less optimal allocation of resources and health outcomes would be achieved. In the top two interventions above, health costs are higher and health outcomes worse without DI. In the other cases, Australians achieve better health outcomes very cost effectively as a result of DI.

Notably, all the DI interventions focus on prevention and early intervention, a policy priority in Australia. Many of the interventions analysed are already part of public health programs in Australia.

All the case studies demonstrate the value of DI services in cost effectively contributing to enhanced health outcomes in Australia. Further CEA's are recommended on a case by case basis to assess the value (including health and productivity gains) of extended public prevention and early intervention programs that utilise DI techniques, given the evidence from the analysis.”

The analysis also provides a methodology for assessing the value of certain diagnostic imaging services that may have broader applications. This report is available to download at <http://www.adia.asn.au/media>

Medicare Benefits Schedule Recommendations:

ADIA recommends:

- A staged approach to a review of the DIST by MSAC to assist the Government to establish a DIST that is evidence-based and that reflects current practice. The review will look at ::
 - The clinical relevance and restrictions applicable to items on the DIST;
 - Fees and relativities within the DIST;
 - New services that support quality care and radiologist input into the care plans of patients.
- The focus of MSAC should be expanded from cost constraint for managing new technologies to supporting value funding for all imaging services on the DIST. A more appropriate methodology for assessing the value of DI needs to be developed for use by MSAC in determining which diagnostic imaging services should be funded.
- ADIA recommends the establishment of the Diagnostic Imaging Services Table Committee to more systematically identify new and emerging technologies, and more systematically and rigorously determine appropriate fees and clinical guidelines to support ministerial approval.
- Extended use of diagnostic imaging in public prevention and early prevention programs.

8. MBS General Fee Increases

Over the past 10 years, most MBS fees have been annually adjusted on 1 November by between 2% and 2.5% (**Attachment E**). These general fee increases are based on Treasury's WCI-5 composite index of wages and costs, which is less than the CPI and does not take account of the capital reinvestment component that is unique to Diagnostic Imaging providers. At the very least these general fee increases should also be applied to diagnostic imaging services, the large proportion of which are specialist medical services provided by Radiologists.

A continuation of the 10 year freeze will lead to private services becoming unviable and further reductions in investment and more practice closures.

General Fee Increase Recommendation:

ADIA recommends that annual MBS general fee increases at least should be applied to diagnostic imaging services.

9. MRI

9.1. Rebate Increases

When MRI was listed onto the MBS in 1998, the schedule fee was \$475, a rate determined in 1997 by the Australian Health Technology Assessment Committee (AHTAC) and taking into account the capital and operating expenses for a 1.5 Tesla MRI unit operating for 72 hours per week. Since these initial costings, operating costs have been significantly impacted by upward pressure on wages of both radiologists and MRI radiographers. An update of the AHTAC costings in 2001 showed that the comparable cost of providing MRI services had increased to \$524, an increase of \$49 per scan.

In August 2004, in breach of its MOU with RANZCR and ADIA, the Government arbitrarily reduced the rebate level from approximately \$410 to an average of \$350. In addition price controls, including constraints in relation to the bulk-billing of concession card holders, have been imposed on the new licenses issued since the initial expansion.

The charts (**Attachment F**) demonstrate that the cut in MRI rebates is not sustainable in terms of either patient affordability or practice viability at the current rebate levels.

- Graph 1: MRI has the highest average patient co-payment (\$136.64) for patient billed services
- Graph 2: MRI has the lowest rate of bulk billing (53%) and consequently the highest rate of patient billing
- Graph 3: MRI has the lowest schedule fee observance with only 62% of services billed at or below the MBS Schedule Fee.

These are the results notwithstanding there are enforceable restrictions in place requiring bulk billing for many MRI services.

9.2. MRI Eligible for Rebates – New Services

When an MRI service is moved from non-rebatable to rebatable it moves the demand for those services from currently unlicensed MRI machines to licensed MRI machines. Hence most of the established services, and the associated intellectual property that goes along with those MRI services, moves to licensed machines. This causes a loss of revenue as well as uncertainty and disruption for the practices with unlicensed machines and for the staff engaged to operate them.

9.3. MRI Services Eligible for Rebates – Rights of referral by GPs

The AMA has suggested that GPs should be permitted to refer patients straight to an MRI provider when an MRI is the best practice investigation for the patient. The AMA assessed that the government would save in the order of \$40 - \$42 million per year if this proposal is adopted. (Press Release dated 24 November 2006.)

ADIA recommends that consideration of this proposal be subject to the use of appropriate clinical indicators and the removal of the current restrictions on test substitution by Radiologists which are linked to specialist referral for MRI.

9.4. MRI Services Eligible for Rebates – Open Access in place of current MRI License Arrangements

Current restrictions on access to rebatable MRI services are no longer appropriate. MRI is an essential diagnostic imaging service and access should be on the basis of appropriateness. ADIA proposes that a joint review be undertaken by ADIA, RANZCR and the Department with terms of reference to consider how to ensure that consumers have access to appropriate, sustainable and affordable MRI services.

MRI Recommendations

ADIA recommends that:

MRI Rebate Increase

- The original \$475 fee be restored and an independent consultant be engaged to determine the current cost of providing MRI services and the appropriate level of rebate funding for MRI services.

New MRI Services

- While the current licensing arrangements are in place, new MRI services should be rebatable on a condition specific basis rather than on a machine specific basis.

Rights of referral by GPs

- Referral by GP's for MRI services should be considered in the context of improving patient access when the following issues are contemporaneously addressed:
 - The MRI rebate level needs to be restored (as above);
 - Access to Medicare rebates for new services is extended to currently unfunded MRI machines as long as they meet the requirements of eligibility;
 - The complex different arrangements that apply to the various MRI licences need to be regularised, including extension of the capacity to all service providers to charge fees above the rebate and removal of all price and bulk billing constraints;
 - Appropriate clinical indicators are developed and restrictions on MRI test substitution by radiologists are removed; and
 - Decision support tools are introduced to ensure imaging requests are appropriate.

Open Access

- ADIA proposes that consumers have access to appropriate, sustainable and affordable MRI services through open access.

10. Appropriate Referral

It is generally recognised that both demand and quality management in DI are dependant on the efficacy of the referral process. A review of DI requests undertaken in 2006 as part of the QUDI Program found there was a need, compelling case, broad support among stakeholders and an opportunity to improve the DI referral process. The review identified a range of complex and interdependent factors and issues that impact on the quality and efficacy of the DI referral process and which have significant implications for quality of care, patient safety and outcomes. It also identified a number of issues driving more effective interaction between the key stakeholders, including issues around communication, efficient access to information, information sharing and management, timeliness.

Given the urgent need for government to be able to influence some of the key drivers of growth in diagnostic imaging, ADIA recommends that the Government support the trialling of various initiatives that would help it and the sector to assess the effectiveness of the current referral process and to evaluate the impact of improved communication and information systems to the delivery of appropriate imaging services.

10.1. Checks, Balances and Expertise

To complement the recommended review of the DIST services and fees within the MBS appropriate checks, balances and expertise, need to become part of the DI referral process to ensure that the right diagnostic imaging service is requested for patients.

10.2. Decision Support for Referring Practitioners

Referring practitioners are challenged by the rapid changes in diagnostic imaging. Direct education is unlikely to keep referring practitioners abreast of all these changes, and therefore ADIA recommends that education be complemented with decision support on their desktop computers. Data illustrating the success of such a decision support tool for ordering high cost imaging exams in the US is attached (**Attachment G**).

ADIA is currently progressing the development of a proposal to trial a web-based decision support tool developed by Commissure, based on GP referral for MRI. It is proposed that the trial of web-based decision support will be integrated with a trial of electronic referral and results using secure messaging (see below).

10.3. Common Reference Template for Radiology Referral Forms

Radiologists are indispensable diagnostic clinical consultants who, when given essential information on patient history including symptoms and the clinical question being asked by the treating doctor, are able to determine the most appropriate imaging (if any), leading to an informative report which assists in diagnosis, decision-making and patient management.

A request for a diagnostic imaging service currently does not have to be in any particular form. Following on from the review of the DI referral process, further work has been undertaken through QUDI to develop a standardised imaging request template that incorporates agreed information aimed at encouraging referring practitioners to provide relevant clinical information to assist radiologists in performing and reporting DI procedures. ADIA recommends the adoption of the proposed standardized referral template as a means of assisting the radiologist to provide more specific specialist medical advice in respect of the appropriate imaging service and the results.

The reality is however, the real benefits of this approach will only be realised through computer generation of the requests rather than completion of paper forms. ADIA is currently progressing the development of a proposal to trial electronic referral and results reporting for DI (see below)

10.4. Electronic Referral

Through electronic referral, Radiologists could have efficient access to the relevant patient clinical records of the referring practitioner. This would enable Radiologists to provide specialist medical advice in respect of the appropriate imaging service (as above), as well as a more tailored diagnostic opinion.

Streamlining the DI referral process should lead to improved and more efficient communication between the referring practitioner, the DI provider and the patient as well as providing data for more informed decisions regarding the funding of appropriate diagnostic imaging.

ADIA is currently developing a proposal for the expansion of a trial involving the GP network in Tasmania, to include electronic referral and results for diagnostic imaging, secure messaging between the referring practitioners and the DI providers and an integrated decision support system for the referring practitioners.

10.5. Restrictions/Clarification on Self Referral

US physicians making self or same specialty referrals are as much as 200% more likely to order an imaging procedure than are physicians referring to radiologists, according to a study published in the November 2007 issue of *Radiology*. The potential for over-servicing increases because the requester is more likely to have a direct or indirect financial incentive to increase the number of referrals made. Studies in relation to diagnostic imaging services in the US strongly support this view. Unnecessary imaging costs money, increases patient exposure to radiation, and contributes to false-positive diagnoses that create possible risk for the patient.

In the US Federal and State Governments, as well as the legal and legislative systems and some payers, are working to curtail the practice of self-referral among physicians utilising medical imaging (**Attachment H**). Self or same specialty referral by physicians is occurring in Australia. Legislative changes to the prohibited practices provisions however do not address this issue.

There has been no review of self-referral arrangements under Medicare since 2000. At that time it was proposed that the issue of “arms length” referral be further considered within the four years to assess the impact of any changes including the Diagnostic Imaging Agreement. ADIA considers it is time to undertake another review of the current self or same specialty referral arrangements and to develop recommendations to address the conflicts of interest.

10.6. Monitoring of Referral Practices by Medicare Australia

It is clear from the literature that the clinical order entry process for the referring practitioner needs to be efficient and ensure that the DI request contains sufficient patient clinical information to enable the radiologist to provide meaningful advice to the referring practitioner (as required) on the appropriateness of the requested procedure, indication for procedure substitution or need for additional investigations, and to assist the radiologist with interpretation of results.

Medicare Australia will need to establish a program to monitor referral practices to ensure the right diagnostic imaging services are requested.

10.7. Prohibited Practices

The purpose of the recently enacted Prohibited Practices legislation is to discourage inappropriate imaging due to conflict of interest arising from the referrer gaining a benefit from the provider. The scope for inappropriate imaging due to the referrer gaining a financial benefit from referral is very real in diagnostic imaging. However, the areas of concern are not addressed in the legislation enacted.

Appropriate Referral Recommendations:

ADIA recommends that the Government:

- Support a proposed trial of electronic DI referral and results, with integrated decision support in Tasmania in conjunction with an existing trial with member divisions of General Practice Tasmania to deliver a secure electronic clinical messaging environment across Tasmania (hereafter referred to as the **Tasmanian Trial Proposal**).
- Adopt the proposed QUDI standard referral template, which allows for the inclusion of agreed clinical information on the patient, as part of the **Tasmanian Trial Proposal**.
- Advance electronic DI referral and results, which would lead to improved and more efficient communication between referring practitioners, DI providers and patients (**Tasmanian Trial Proposal**).
- Review self referral arrangements and develop recommendations to address conflicts of interest.
- Monitor referral practices through Medicare Australia.
- Limit the current Prohibited Practices legislation to pathology.
- Prohibit arrangements where there is a direct financial conflict of interest between the referrer and the provider of diagnostic imaging services. For example, joint ventures between referrers and providers where profits are shared.

11. Quality Imaging

With regard to diagnostic imaging and image-guided treatment, quality is the extent to which the **right procedure** is done in the **right way**, at the **right time**, and the **correct interpretation is accurately** communicated to the patient and referring physician in a timely way.

11.1. Practice Accreditation

Accreditation of diagnostic imaging practices is now accepted as a key quality initiative and while in its early stages will involve adherence to minimum standards for Medicare rebate eligibility, it has the potential to contribute significantly to patient safety, quality services and the creation of a culture of practice improvement.

11.2. Code of Practice for Provision of Digital Images

Traditional delivery of diagnostic imaging results has been the provision of a signed written report and hardcopy films to referrers. Historically, this had been deemed by both imaging providers and referrers alike to be an appropriate means of distribution regardless of the image set or clinical pathway undertaken.

With the advent of digital technology, the radiology industry embraced its newfound capacity to capture, deliver and store diagnostic images with increased quality and efficacy. Concurrent advances in imaging techniques, particularly CT and MRI, created a need to accommodate increasingly complex data sets and volumes of images per examination. The rapid introduction of digital imaging delivery systems became inevitable in order for diagnostic imaging providers to be able to continue to provide the Australian public with the latest in imaging technology.

Traditional delivery methods (film) become an unreasonable and inadequate media when dealing with the presentation of complex image sets and are now considered inefficient and an environmentally poor medium for the transmission of most images. In recent years, digital imaging and DICOM has become common-place, direct DICOM feed is generated by more advanced modalities and digital image capture (DR) is replacing conventional x-ray techniques.

Digital imaging and delivery is fiscally responsible and represents a significant improvement in quality, service and patient care, all of which are the key drivers for its widespread implementation across both the public and private sectors.

Some craft groups have however experienced problems with the provision of digital images, in the main related to disparities in infrastructure and understanding of E-health, coupled with fact that the rapidity of technological advances has to-date outpaced referrer training and infrastructure.

It should be noted that currently, in both the public and private sectors, medical imaging providers, referrers and their host institutions are in different stages of migration to the digital environment. It is likely that these issues will become increasingly common-place as more diagnostic imaging providers migrate towards the digital environment.

The diagnostic imaging profession and industry are working collaboratively with other medical and allied health groups to provide advice on a range of acceptable image delivery options to clinicians and DI practices to ensure that patient care and practice efficiency do not suffer during the transition process from film to digital imaging. ADIA is working with The RANZCR and the Government to develop a code of practice for the provision of digital images which will be released in the near future, following consultation with relevant stakeholders.

Quality Imaging Recommendation:

ADIA advocates the adoption of a code of practice for digital images by all diagnostic imaging providers and recommends that this code inform the standards for accreditation of practices

12. Professional Workforce

12.1. Training for the future

Future clinical specialist radiologist workforce needs require a continued and growing emphasis on College accredited training in both the public and private sectors. The role of Radiologists in training radiologists, medical students, interns, registrars, trainee nurses and allied health professionals is critical and an integral strategy in ensuring widespread understanding and appropriate use of diagnostic imaging. The RANZCR needs to engage with appropriate medical training bodies to incorporate training on the value and appropriate use of diagnostic imaging into the training and ongoing professional development programs of these health professionals.

12.2. Research

A culture of practical research needs to be engendered within Radiology to equip young Radiologists with the skills necessary to keep abreast of the latest techniques and practice improvements. Critical thinking and an understanding of the use of clinical guidelines will assist in the achievement of quality outcomes and the appropriate use of imaging.

12.3. Private Practice Training

RANZCR and ADIA are participating in the Department's Enhanced Medical Training Networks program, in order to extend radiology registrar training into appropriately accredited private sector sites. This will both improve workforce capacity by increasing the number of training positions available and enhance the breadth and quality of training experience for trainees. ADIA supports further development and funding of these initiatives, including incentives to encourage private sector training and the provision of funding over the 5 year life cycle of training rather than on an annual basis.

12.4. Offshore Teleradiology

ADIA supports a change to legislation to permit Australian registered radiologists to conduct offshore teleradiology reporting under the Medicare system. This would involve Australian registered and credentialed radiologists, associated with an Australian radiology practice but domiciled overseas, to read and report their opinion on diagnostic images provided to them by means of secure web-based applications.

Australian registered radiologists should be permitted to report their opinion on MBS diagnostic imaging services from overseas if the 10 principles of the RANZCR *Position Statement on International Clinical Teleradiology* are adhered to, which include the following minimum medico-legal requirements:

- the Radiologist is registered with the medical board in the state or territory in which the examination originated;
- the Radiologist is engaged and paid by a local practice which is then liable if there are irregularities or concerns; and
- the Radiologist provides proof of medical indemnity with an Australian insurance company.

We believe that the system can be implemented in such as way to ensure that patient care and quality of diagnostic imaging services is not compromised and that the integrity of the Medicare system is maintained at all times.

ADIA recommends that:

- Incentives be provided to encourage training in private sector practices.
- Offshore teleradiology by Australian registered radiologists should be permitted subject to meeting the requirements outlined above.

13. Practice Efficiency

As outlined above, DI practices are moving more and more to embrace digital systems. Digital imaging technology brings substantial benefits to consumers, referring practitioners and diagnostic imaging practices. Achievement of business and health outcome gains from digital system advances are not however being fully realised due to the lack of supporting infrastructure and work process changes both within the DI industry and across the broader health sector.

13.1. Central Storage Repository for Digital Images

Access to previous images is becoming critical and effective strategies for archiving images are essential which support longitudinal access across community/hospital and public/private boundaries.

13.2. Improved systems of Electronic Messaging

Integration of the various information and communication technology systems which support communication between diagnostic imaging services and their referring practitioners and other healthcare systems is critical. This integration has to achieve interoperability that enables multiple different computer systems to exchange and use information transferred electronically.

High bandwidth access to the internet, together with secure and cost effective communication systems, are required to support both internal movement of data within DI practices and to enable external access to images.

13.3. Review of anomalies in the schedule that disrupt good practice

There should be a review of anomalies in the schedule that disrupt good practice, (e.g. ultrasound services where the MBS requires days of separation between procedures).

These rules should be addressed in Stage 1 of the proposed review of the DIST.

Practice Efficiency Recommendations:

ADIA recommends that:

- A central storage repository be provided by the Government for digital images
- Government support improved infrastructure for electronic messaging
- Anomalies in the DIST that disrupt efficient practice should be addressed in Stage 1 of the proposed review of the DIST.

14. Complementary Private and Public Sector Service Delivery Model

Currently diagnostic imaging services in Australia are provided by public hospitals (35-40%) and private imaging practices (60-65%). It is estimated that about 70% of diagnostic imaging services delivered in Australia are now funded through Medicare and this is growing.

In 2005/06 public hospitals received in the order of \$140M for MBS imaging services under the radiology MOU. This was an increase of around 12% on the previous year. This compares with average growth of 9.7% for other practice types, and 10.2% overall.

Over this same period some public hospitals had MBS revenue (excl MRI) growth as high as 20%. The revenues some public hospitals derive from the MBS are substantial:

- 8 hospitals had MBS revenue in 2005/06 (excl MRI) which exceeded \$2m and these hospitals experienced growth of 10.4%;
- 29 hospitals had MBS revenue in 2005/06 (excl MRI) of \$1.5M (average) and this represented growth of 16.4% on 2004/2005;
- 36 hospitals had MBS revenue in 2005/06 (excl MRI) of \$0.64M (average) and this represented growth of 20.4% on 2004/2005.

This has been particularly problematic in the context of a capped MOU funding arrangement. Looking forward there is a need to define the policy and competitive framework within which the public and private providers of diagnostic imaging services invest and receive funding. ADIA recommends that the Government consider the following.

Growth in public sector delivery of MBS services over the past 10 year period has not only lead to a significant shift in the private - public mix but has become a serious threat to investment in the private sector. Continuation of the current competitive advantages of the public sector together with the ongoing rebate freeze will see increasing private practice closures over the next six months as the private sector (and patient contributions) become more unviable. This will have implications for the overall government cost of delivering diagnostic imaging services and will put further pressure on hospitals that are already struggling to meet the needs of patients in many areas.

Further detail is provided in (**Attachment I**).

ADIA recommends that:

- Government require hospitals to apply principles of competitive neutrality in the setting of their fees for MBS services;
- Government apply the lower in-hospital rebate of 75% to all public hospital services claimed on the MBS;
- Government engage with ADIA and RANZCR as it considers health system funding options given the unique combination of investment and service funding applicable to diagnostic imaging.

15. Management of Medicare Outlays for DI

15.1. Current MOU structure

For the past 5 years, the provision of Medicare funded diagnostic imaging services has been managed through four Quality and Outlays Memoranda of Understanding, based on groupings of items which do not necessarily reflect practice or patient differences. Each MOU has its own management committee with the key, but not all, stakeholders represented. Radiologists provide the majority of all DI services and are engaged in the management committees of three of the MOUs which have involved significant resources.

Within the Radiology MOU, quality initiatives have been addressed through the Quality Use of Diagnostic Imaging Program (QUDI), a program funded by the Government and managed by RANZCR. In the other MOUs quality initiatives have been agreed between the MOU parties and funded by the Government.

15.2. Challenges of the current MoU structure

While the four MOUs cover different sections of the DIST, the overarching objectives and provisions of the MOUs are the same. There is no overarching management of DI services involving all the stakeholders. When specific initiatives, such as accreditation, require broader stakeholder engagement, this is managed by the Department.

The Radiology Management Committee has been preoccupied with managing outlays and has not been effective in achieving MOU objectives to promote:

- access to quality, affordable Radiology services;
- effective management of outlays by the commonwealth for the Radiology services described in the DIST and applicable to this MOU;
- improvement in the quality and delivery of Radiology services through the development of a quality framework; and
- co-operative strategies which promote affordability of services for patients.

15.3. Proposed structure for future collaboration

The Government has indicated that the current MoUs will not be renewed when they expire on 30 June 2008. To meet the challenges ahead, ADIA recommends a new approach to the management of Medicare funded DI services involving a Radiology Services Committee (RSC) supported by three Committees (**Attachment J**)

- Radiology Services Committee (RSC)

The RSC would have an improved charter with clear targets and objectives. It would be responsible for overall management of activities to be covered under a new collaborative agreement, including all of the Committee work programs. It would be where the stakeholders agree priorities, oversee progress and monitor outcomes. The RSC would also have a strong role in the monitoring of trends in demand and utilization of radiology services including the provision of ongoing advice to the government on strategies to assist in the management of outlays.

Parties to the RSC would include the Department, Medicare Australia, RANZCR (representing the radiology profession) and ADIA (representing private radiology practice) and, in light of the increasing proportion of services provided by public sector providers, consideration should be given to encouraging separate representation on behalf of public sector service providers.

A Project Control Group type management structure is recommended to avoid the past problems experienced with the RMC and to manage the interdependent nature of the activities that would be undertaken by the parties to meet the mutually agreed targets. (Attachment K)

- Radiology Action Program (RAP)

The Radiology Action Program (RAP) would be a new program focused on implementation of an agreed 5 year action plan to effect changes in the management and delivery of radiology services.

Evolving issues with the QUDI program have related to its lack of clear linkage to the funding of diagnostic imaging services and the lack of a framework for implementation of changes in practice arising from the work of the Program. Many projects have the potential to significantly change the provision of diagnostic imaging services and are clearly beyond the role, capability and resources of the College to implement.

The RAP will address these issues by establishing an agreed action plan to be implemented over a period of five years. The secretariat for this program would be contracted to ADIA along with a Management Board chaired on a rotating basis in accordance with the proposed Project Control Group structure. Board membership would include appropriate stakeholders.

The accreditation program provides an example of how this might operate. While the accreditation program had been developed as a voluntary program by the RANZCR, its full implementation was beyond its capacity. It was included in the Radiology MoU as a priority initiative and is now being implemented as a project in consultation with the stakeholders. The five year action plan recommended by ADIA includes the Tasmanian Trial of decision support and electronic referral, implementation of eHealth initiatives, practice accreditation and other initiatives agreed in the funding agreement to better manage funding.

- Diagnostic Imaging Services Table Committee (DISTC)

The Diagnostic Imaging Services Table Committee (DISTC) would be established by the Department along similar lines to the Pathology Services Table Committee with appropriate stakeholder representation. This would provide an independent, more robust framework for managing the whole DIST. This Committee would support the recommended staged review of the DIST and work in conjunction with MSAC to ensure items included on the DIST are evidence-based and cost effective. MSAC should be resourced and expanded to assess an increasing number of diagnostic imaging services

- Quality Program (QUDI II)

The learnings from the current Quality Use of Diagnostic Imaging Program (QUDI) should be further progressed within a more defined framework with strategic leadership provided by the RSC. The scope of the QUDI program could cover research and development of an evidence base for quality care and professional guidelines to underpin the long term funding of appropriate and quality diagnostic imaging. ADIA and RANZCR have been discussing the challenge of how best to ensure that private sector practices and radiologists are engaged in the program.

Future Management of Radiology Services Recommendations:

ADIA could only support an approach that embraces the following key functions through an outcomes based framework with clearly defined responsibilities and accountabilities. ADIA recommends that:

- Radiology services be managed by a Radiology Services Committee (RSC)) supported by three Committees focused respectively on Program Implementation, Reform of the DIST and Quality Diagnostic Imaging Services.
- A new Radiology Action Program (RAP) be established to focus on implementation of an agreed 5 year action plan to effect changes in the management and delivery of radiology services. The five year action plan recommended by ADIA includes the Tasmanian Trial of decision support and electronic referral, implementation of eHealth initiatives, practice accreditation and other initiatives agreed in the funding agreement to better manage funding.
- The Diagnostic Imaging Services Table Committee (DISTC) would be established by the Department along similar lines to the Pathology Services Table Committee. MSAC should be resourced and expanded to assess an increasing number of diagnostic imaging services.
- The learnings from the current Quality Use of Diagnostic Imaging Program (QUDI) should be further progressed within a more defined framework with strategic leadership provided by the RSC. The scope of the QUDI II program could cover research and development of an evidence base for quality care and professional guidelines to underpin the long term funding of appropriate and quality diagnostic imaging.

16. Budget Impact

Funding needs to be provided to meet the diagnostic imaging needs of the Australian community and to support the collaborative efforts of the key stakeholders to assist the Government to manage outlays for diagnostic imaging services.

ADIA recommendations for the future funding of diagnostic imaging services in this document will have a budgetary impact.

Budget Recommendations

ADIA recommends that

- **Increased funding be made available for DI rebates as follows:**
 - An across the board increase in rebates: 8% - 10%.
 - An MRI rebate increase – From \$342 to \$395 (average).
- **In relation to future funding for DI**
 - Forward estimates need to be realistic to ensure that investment continues and patients can access affordable diagnostic imaging services. ADIA's medium forecast for the next 5 years is that services growth will increase by 4.4% (including 1.7% due to ageing alone) and expenditure growth before adjustment for rebate increase is 6.3% per annum.
 - DI rebates should be indexed on an annual basis at least in accordance with the WCI-5. This will increase expenditure growth to 8.3% per annum over the next five years (medium forecast) – Ultrasound by 8.2%, CT by 9.3%, diagnostic radiology by 4.4% and MRI by 14.1%.
 - A 10% increase in rebates from the frozen 1998 rebate levels will further increase expenditure growth to 9.3% per annum over the next five years (medium forecast) – Ultrasound by 9.3%, CT by 10.2%, diagnostic radiology by 5.1% and MRI by 15.1%.
 - Additional funding is needed for initiatives to improve access – e.g. 100% rebate for bulk billed services and for rural and remote services
 - Savings should be pursued through initiatives to improve competitive neutrality – e.g. 75% rebates for all public sector services
 - Funding for management, development and implementation activities including the RSC, QUDI RSAP, DISTC and MSAC.

Attachment A – Growth Analysis

Base Forecast – Age Affects Only

Total New MoU	\$ Inc on Id MoU	% Inc on old MoU	Avg Ann % Growth
16,696,262	2,784,608	20.0%	1.7%
9,913,439	1,912,951	23.9%	1.9%
43,281,128	3,805,056	9.6%	1.6%
2,365,968	604,414	34.3%	1.5%
72,256,797	9,107,029	14.4%	1.7%

Low Forecast – Extra Growth Declines to 0 in 5 Years

Total New MoU	\$ Inc on Id MoU	% Inc on old MoU	Avg Ann % Growth
18,402,911	4,491,257	32.3%	3.9%
11,088,320	3,087,831	38.6%	4.4%
43,693,504	4,217,432	10.7%	1.8%
2,856,380	1,094,826	62.2%	5.4%
76,041,114	12,891,347	20.4%	2.9%

Medium Forecast – Extra growth Declines to ¼ in 5 Years

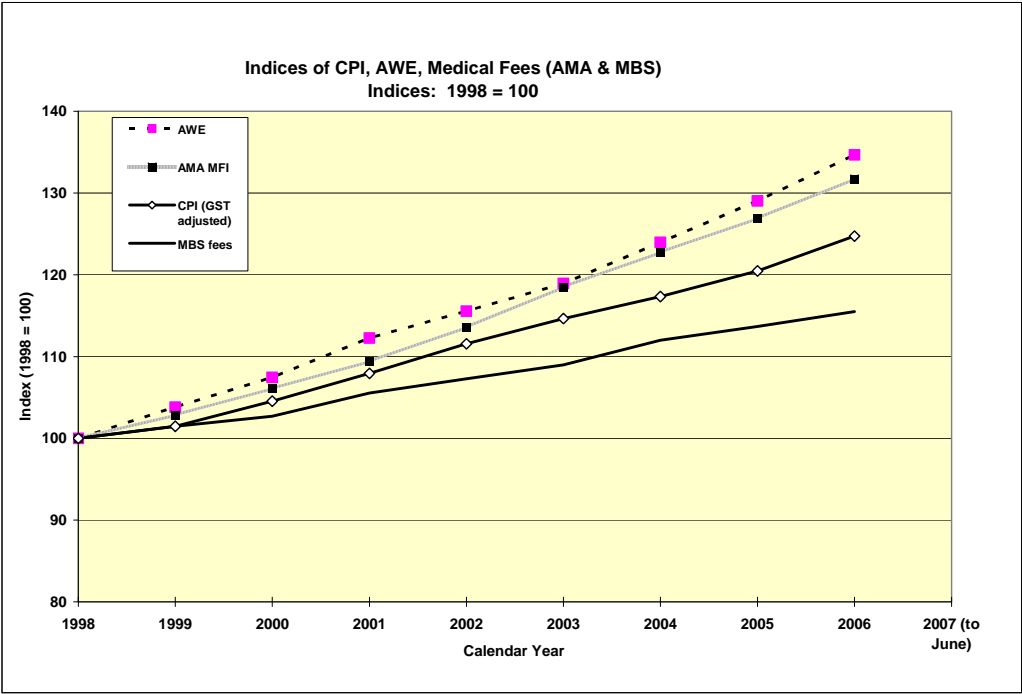
Total New MoU	\$ Inc on Id MoU	% Inc on old MoU	Avg Ann % Growth
19,260,819	5,349,166	38.5%	6.3%
11,637,678	3,637,190	45.5%	7.1%
44,348,774	4,872,702	12.3%	2.3%
3,212,036	1,450,482	82.3%	12.0%
78,459,307	15,309,539	24.2%	4.4%

High Forecast – Current Growth Trends Continue at Same Rate

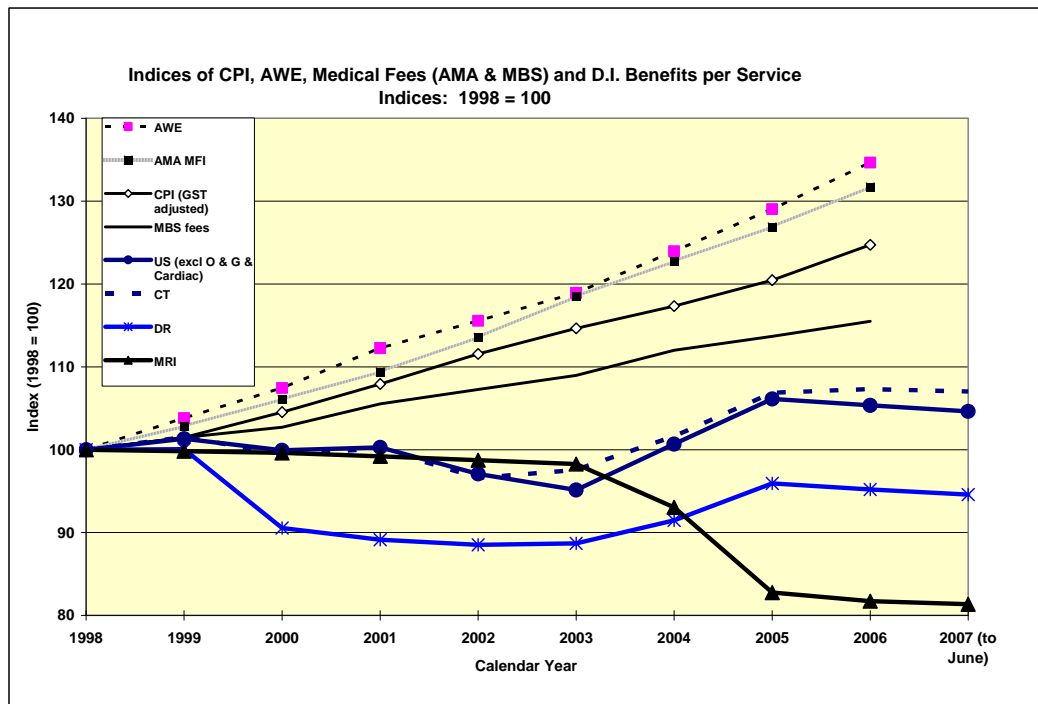
Total New MoU	\$ Inc on Id MoU	% Inc on old MoU	Avg Ann % Growth
19,598,148	5,686,495	40.9%	7.1%
11,829,051	3,828,563	47.9%	7.9%
45,093,074	5,617,002	14.2%	3.0%
3,212,036	1,450,482	82.3%	12.0%
79,732,309	16,582,542	26.3%	5.0%

Attachment B – Lowest Level of MBS Funding

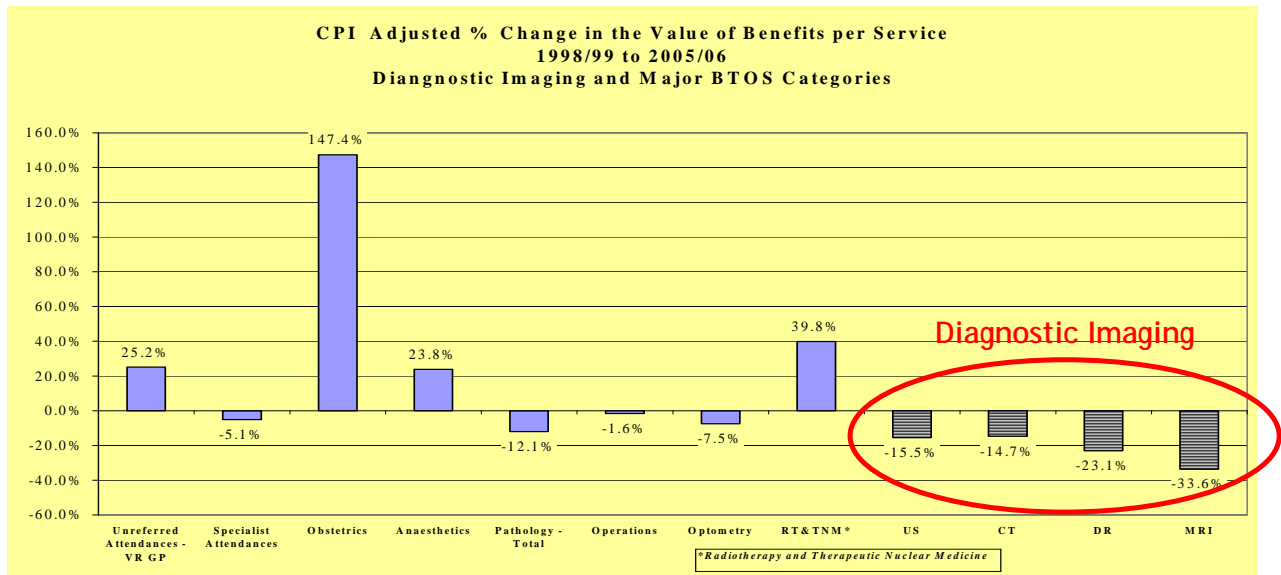
The following graph, developed by the Australian Medical Association (the AMA), shows at a glance that MBS fees have not been increased in line with CPI increases or average weekly earnings over the past 10 years.



When the average benefits per service for Radiology services are overlaid on the AMA graph, the freeze on radiology rebates over the past 10 years is obvious.

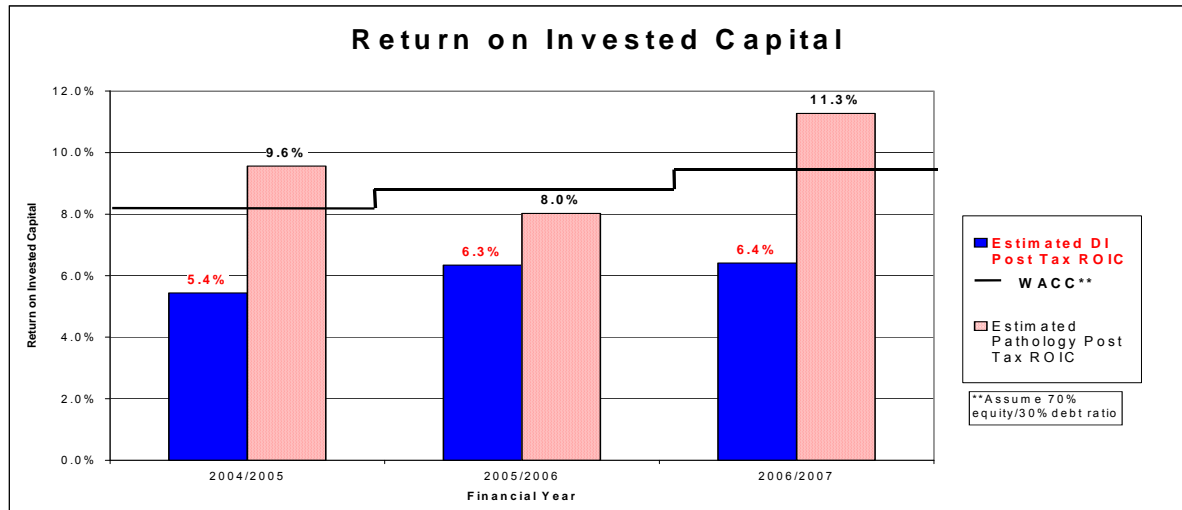


No other practice area has experienced a decline in income of the order of that experienced in Diagnostic Imaging.



Attachment C – Industry Returns and Investment

ROIC for diagnostic imaging over the past 3 years has been 2% to 3% below WACC which means that current investments in diagnostic imaging are not meeting the required rate of return for investors and future investment is constrained.



In this sector, with rapid changes in diagnostic imaging technology and clinical practice, reinvestment rates have been 75% to 80% of profits. This has been constrained by the low level of performance experienced by the sector under the MOU.

Attachment D – Policy Framework

The Royal Australian and New Zealand College of Radiologists and The Australian Diagnostic Imaging Association propose adoption of four pillars of policy covering delivery of diagnostic imaging services upon which a broader, flexible and adaptable policy framework can be constructed to ensure affordable **patient access** for all Australians to **quality services** delivered by a **skilled profession** operating within a **viable practice environment**.

AFFORDABLE PATIENT ACCESS

- Equitable access to diagnostic imaging services for patients must be supported through adequate state and federal government funding.
- Medicare is a patient access enabling scheme and not a practitioner remuneration arrangement.
- Medicare rebates must reflect the actual cost of service provision and the relative and varied needs of patients.
- Providers may facilitate Medicare payment processes but their professional relationship and responsibility is with the patient.
- Service Access to Diagnostic Imaging services must be gained through referral from general and other specialist medical practitioners and, where appropriate, allied health professionals.
- Rural, regional and remote service delivery must be maintained and supported by all stakeholders.

QUALITY SERVICES

- The quality and range of patient services should meet best practice standards.
- Diagnostic imaging practices must employ current technologies necessary to provide quality images, diagnostic advice and clinical recommendations.
- Quality of services must be assured by accreditation and independent audit processes.
- Diagnostic imaging professionals have a pivotal role in ensuring that referrals and subsequent services are appropriate to the clinical needs of the patient and are evidenced based.
- Patients need to be informed about the nature, purpose and costs of the services for which they are referred.

SKILLED PROFESSION

- Skilled and qualified professionals must deliver each component of the diagnostic imaging service. The overall responsibility for the conduct of the service rests with the diagnostic imaging specialist or other clinician providing the diagnostic imaging service as team leader.
- Training programs must provide the skilled workforce needed to meet increasing demand for and complexity of diagnostic imaging services.
- Continuing professional development and credentialing must be designed to ensure skills are maintained and expanded to meet patient needs.
- The professional environment must attract suitable entrants to training and practice.
- Efficiency improvements must be underpinned by evidence-based medicine and a commitment to investment in research & development.
- Communication between providers and referrers will facilitate more appropriate referral practices and better patient outcomes.

VIALE DIAGNOSTIC IMAGING SERVICES

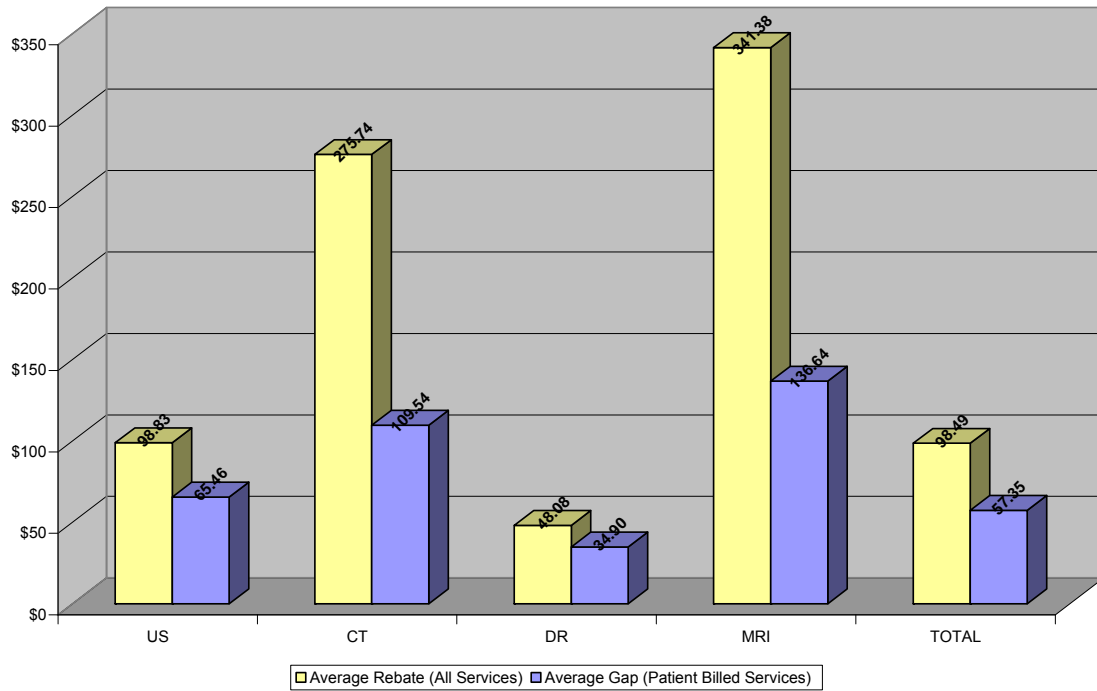
- All stakeholders have shared responsibility in securing a supportive and sustainable economic operating environment for efficient diagnostic imaging practices to enable them to meet the needs of Australian patients and their referring practitioners.
- Practice investment must be acknowledged and an adequate return on investment achieved to provide incentives to invest and maintain the adequacy of the capital base necessary for efficient practice operation.
- All stakeholders have shared responsibility to ensure that government fiscal outlays on medical imaging services are sustainable and cost effective.
- Change management must be facilitated and driven by agreed fiscal adjustments aligned to government policy objectives to be effective.
- Funding of both the public and private sectors should be equitable and founded on the principles of competitive neutrality. Current distortions in the funding mechanism should be addressed.

Attachment E – MBS General Fee Increases

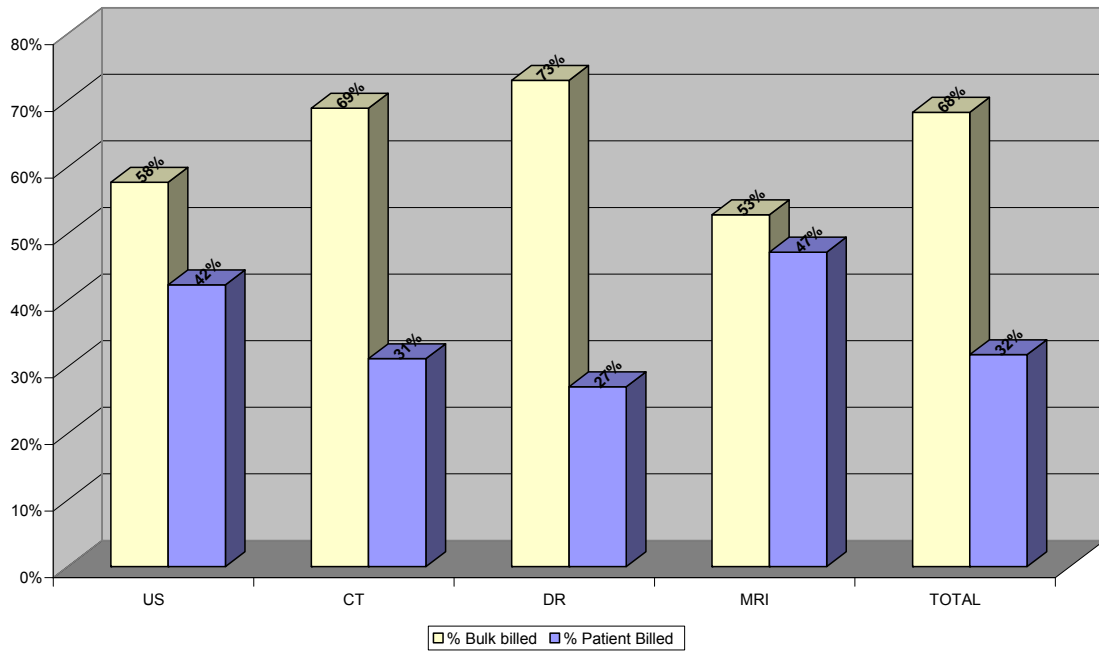
November	Summary of General Fee Increases
1999	<p>A 2.33% increase in Schedule fees will apply to all items in Group A1 plus equivalent attendance item 173 in Group A7 (acupuncture);</p> <p>A 2.5% increase will apply to all other items of service except for Pathology and Diagnostic Imaging items. Pathology services in Category 6 have had targeted increases. The items targeted have been agreed by the Royal College of Pathologists of Australasia and the Australian Association of Pathology Practices.</p>
2000	<p>A 2.1% increase in Schedule fees will apply to all items in Group A1 plus equivalent attendance item 173 in Group A7 (acupuncture) and Bone Densitometry (items 12306 and 12321);</p> <p>A 1.2% increase will apply to all other items of service except for Pathology and Diagnostic Imaging items.</p>
2001	<p>No increase in Level A items in Group A1 and equivalent attendance items;</p> <p>A 4.3% increase applies to Level B items in Group A1 and equivalent attendance items, and items 30003 and 41704;</p> <p>A 9.6% increase for level C and D items in Group A1 and equivalent attendance items;</p> <p>A 2.5% increase to Groups A5, A14, A15 and all emergency after hours items (1, 2, 601, 602, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 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Attachment F – MRI Statistics

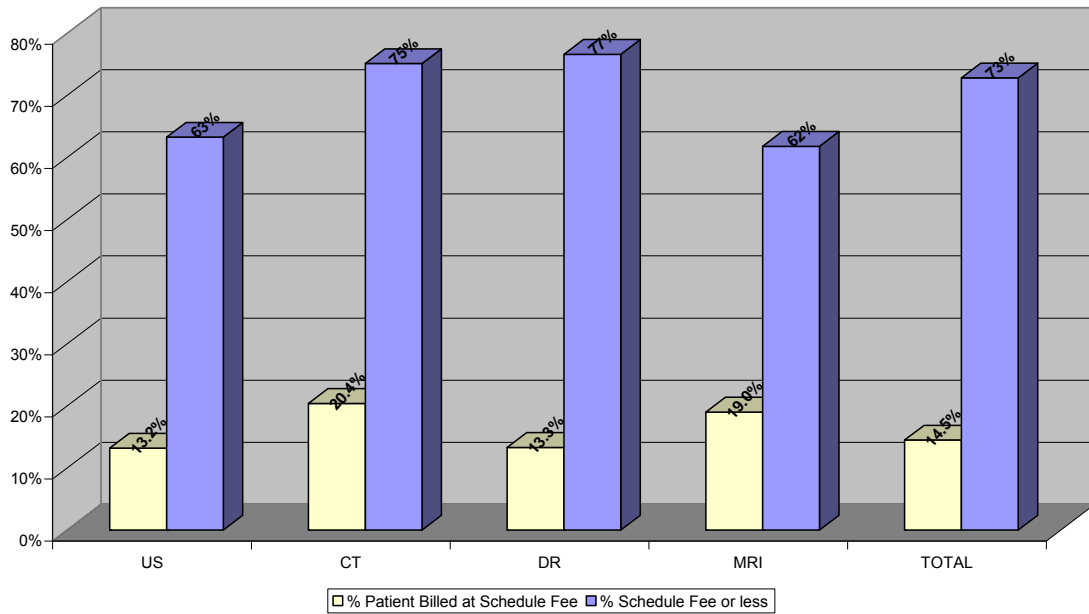
Graph 1
Average Patient Gaps (excl EMSN) - All Services December 2006



Graph 2
% Radiology Out of Hospital Services Bulk Billed & Patient Billed - December 2006



Graph 3
% Radiology Out of Hospital Services Billed at or less than Schedule Fee - December 2006



Attachment G – Decision Support Tools

Web-based order entry improves CT, MRI exam use patterns

By [Kate Madden Yee](#)

AuntMinnie.com staff writer

December 14, 2007

Having access to top-notch medical technology for treating disease is all well and good, but it's still important to order the right test at the right time for the right condition. With the high cost of medical imaging a hot topic in both medical and governmental circles these days, the more efficient hospitals and imaging centres can make their practices, the better.

Researchers at Massachusetts General Hospital (MGH) and Harvard Medical School in Boston tackled the question of whether a Web-based decision-support program could help make ordering high-cost imaging exams more "sensitive and specific." Pragma Dang, M.B.B.S., and colleagues sought to assess the effect of a Web-based radiology order entry (ROE) system (WBRS) on the volume and yield of imaging exams. Dang presented the group's findings at the 2007 RSNA meeting in Chicago.

"According to the American College of Radiology, diagnostic imaging is the fastest-growing medical expenditure," Dang said. "Overuse of imaging exams may be contributing to rising healthcare costs, and may also be exposing patients to risks from radiation or contrast media-related reactions."

The researchers developed the WBRS and selected all CT (69,389) and MR (41,170) exams ordered with the program between the last quarter of 2004 and the first quarter of 2007. They established "appropriateness zones" of low, intermediate, and high utility. Using data mining and analytical software, they assessed the trend of specified radiological findings and appropriateness zones in the reports of CT and MRI exams performed in 2005 and 2006.

Using the WBRS, low utility exams decreased and high utility exams increased, according to Dang.

Percentage of low utility exams		
Exam	Q4 2004	Q1 2007
CT	3.5%	0.8%
MRI	11%	2%

Percentage of high utility exams		
Exam	Q4 2004	Q1 2007
CT	86%	95%
MRI	71%	85%

The volume of CT and MR studies decreased by 44.3% and 31%, respectively, and the rate of specified radiological findings in the radiology reports increased from 74% to 84% for CT and 73% to 85% for MR.

"We found the WBRS was very helpful in improving CT and MR utility patterns," Dang said.

During the same session, researchers at Thomas Jefferson University in Philadelphia examined geographic variation in MRI, finding substantial differences in usage. Laurence Parker, Ph.D., and colleagues used data from the Centers for Medicare and Medicaid Services (CMS) 2004 Limited Dataset, which is a 5% random sample of charges for fee-for-service Medicare beneficiaries.

Parker and his group extracted data for MRI claims, and found that overall MRI utilization was 155 exams per every 1,000 beneficiaries, with the five highest states for MRI use being Delaware (241), Florida (230), Alabama (208), Maryland (207), and Texas (204).

Why usage of MRI varies geographically requires further study, Parker said. But a tool like WBRS could help hospitals better understand whether high-cost modalities such as CT or MRI are over- or underused due to radiology exam ordering patterns, according to Dang.

Attachment H – Demand for Imaging Creating Ethical Dilemmas

RSNA News – February 2008 (p.14-15)

www.rsna.org

Huge growth and rapid developments in imaging are creating ethical questions regarding which physicians should be performing and interpreting imaging studies, as well as questions about appropriate billing and self-referral.

Three researchers from Thomas Jefferson University in Philadelphia outlined results from studies of imaging utilization during an RSNA 2007 session. During his opening remarks, David Levin, M.D., described the conflict of interest that arises when physicians own or have financial interest in imaging equipment.

"When another doctor refers a patient to a radiologist, the likelihood is that the patient really needs the study," said Dr. Levin, a professor of radiology. "The doctor has no financial incentive to order it, because the doctor doesn't make any money by ordering the test. If a physician owns an MR scanner, there is a conflict of interest, because the physician stands to gain by self-referring that patient."

Dr. Levin updated the audience on ways the federal and state governments, as well as the legal and legislative systems and some payors, are working to curtail the practice of self-referral among physicians utilizing medical imaging. Maryland has a law outlawing such self-referral for MR and CT (see sidebar), he said, while a quality assurance program in New Jersey significantly reduced utilization among non-radiologist imagers. Medicare policies for 2008 will impact radiologists' reading contracts and non-radiologists' scan-lease arrangements, he said.



David C. Levin, M.D., of Thomas Jefferson University, outlined some of the ways that federal and state governments, the legal and legislative systems and some payors are working to curtail the practice of self-referral among physicians utilizing medical imaging.

Utilization Increased in All Specialties

Vijay Rao, M.D., chair of the radiology department, further explored the growth of imaging in her review of 2000–2005 Medicare patient files. "If you look at total Medicare payments for non-invasive diagnostic imaging over five years, it's grown by 93 percent," she said. She reported finding steady increases in utilization among all specialties, noting, "Physicians who own equipment are doing their own imaging and utilize two to seven times more than physicians who do not own equipment."

Dr. Rao reported growth in overall diagnostic imaging at 25 percent, with radiologists seeing a 22 percent increase. Of other specialties, "Cardiologists really stood out," she said. Cardiologists saw a growth in utilization of 65 percent, she said.

"It's about three times the rate for other specialties," said Dr. Rao of the increase in cardiologist utilization. "That sort of raises a red flag as to why." Those facts are of particular concern for policymakers and payors who struggle with increasing demand and astronomical costs, she said. "Clearly imaging is growing at a very fast rate and I think we need to look at the total picture," she added.

Geographical Location Makes Big Difference

Laurence Parker, Ph.D., director of health services and outcome research for the Department of Radiology, took a geographic approach, examining MR imaging utilization among Medicare patients throughout the U.S. and its territories. He found that Delaware, Florida, Alabama, Maryland and Texas had the highest utilization, while Montana, Iowa, North Dakota, Virgin Islands and Hawaii had the lowest.

It's not a surprise that Florida is at the top, because this is a Medicare population and it's geared toward retirees," said Dr. Parker. "With Delaware and Maryland, you've got states that are adjacent to places like D.C. and Philadelphia. It would be interesting to look at these claims again by provider location and see if the results change.

"As far as Alabama and Texas go, the Centers for Disease Control and Prevention does maps of chronic disease incidence rates and the south-eastern states appear to have very high rates," continued Dr. Parker. He said he believes his study results confirm overall presumptions about medical care and its availability. "The very large differences in rates of utilization should be investigated, because it may mean that standards of care are different," he said.



Laurence Parker, Ph.D. (left), and Vijay M. Rao, M.D., both of Thomas Jefferson University, discussed their studies of medical imaging utilization by specialty and geographic area.

In an effort to keep health costs down and control quality, many states currently require a certificate of need (CON) to acquire MR imaging, CT, ultrasound and radiation therapy equipment. A study comparing imaging utilization among states with and without CON programs would be warranted, said Dr. Parker. ■

Economic Motivation Fuels Self-Referral, Study Finds

Physicians making self- or same-specialty referrals are as much as 200 percent more likely to order an imaging procedure than are physicians referring to radiologists, according to a study published in the November 2007 issue of Radiology.

G. Scott Gazelle, M.D., M.P.H., Ph.D., and colleagues at the Institute for Technology Assessment in the Massachusetts General Hospital Department of Radiology analyzed data from a nationwide, employer-based health plan with about 4 million members. Physicians who had seen at least six patients in at least one of six condition/imaging pairings between 1999 and 2003 were included in the study.

Researchers compared only those physicians who referred all patients to themselves or members of their own specialty with physicians who referred all patients to radiologists.

"The magnitude of our findings and their consistency with those of other studies suggest that financial incentives may play a role [in greater utilization]," Dr. Gazelle and colleagues concluded.

"Utilization of Diagnostic Medical Imaging: Comparison of Radiologist Referral versus Same-Specialty Referral" can be accessed online at radiology.rsna.org/cgi/content/full/245/2/517.

Learn More

■ The abstract for the RSNA 2007 presentation "Recent Changes in the Utilization Rates of Non-invasive Diagnostic Imaging (NDI) among Radiologists, Cardiologists, and Other Specialties" is available at rsna2007.rsna.org/rsna2007/V2007/conference/event_display.cfm?em_id=5003176.

■ The abstract for "Variation across States in Magnetic Resonance Imaging Utilization in the Medicare Population: 2004" is available at rsna2007.rsna.org/rsna2007/V2007/conference/event_display.cfm?em_id=5002821.

Debate Continues Over Maryland Self-Referral Law

An appeals court will take up questions regarding the interpretation of a 1993 Maryland law prohibiting physicians from referring patients to diagnostic entities in which they have a financial stake.

As first reported by the American Medical Association's AMNews on Dec. 17, 2007, a Maryland circuit court ruled last October that the statute—modeled on the federal Stark law—bans non-radiologists from referring patients within their practices for CT, MR and radiation therapy services. The circuit court heard the case after a group of 14 medical practices challenged the Maryland Board of Physicians, saying imaging is included in exceptions to the law allowing in-office referrals for ancillary tests.

In denying the challenge, the court stated that the statute's definition of ancillary services excludes MR and CT for all physicians except radiologists. Appealing to a higher court, the plaintiffs maintain that the circuit court's ruling is effectively a total ban on in-office imaging by non-radiologists, even though state and federal policy deem it proper under certain circumstances. The court ruling could have a significant financial and quality of care impact on physicians and patients, the plaintiffs told AM News.

Attachment I – Private and Public Sector Trends

Diagnostic Imaging Services in Australia

Currently diagnostic imaging services in Australia are provided by public hospitals (35-40%) and private imaging practices (60-65%). It is estimated that about 70% of diagnostic imaging services delivered in Australia are now funded through Medicare and this is growing.

In 2005/06 public hospitals received in the order of \$140M for MBS imaging services provided under the radiology MOU. This was an increase of around 12% on the previous year. (Note 1) This compares with average growth of 9.7% for other practice types, and 10.2% overall.

Over this same period some public hospitals had MBS revenue (excl MRI) growth as high as 20%. The revenues some public hospitals derive from the MBS are substantial:

- 8 hospitals had MBS revenue in 2005/06 (excl MRI) which exceeded \$2m and these hospitals experienced growth of 10.4%;
- 29 hospitals had MBS revenue in 2005/06 (excl MRI) of \$1.5M (average) and this represented growth of 16.4% on 2004/2005;
- 36 hospitals had MBS revenue in 2005/06 (excl MRI) of \$0.64M (average) and this represented growth of 20.4% on 2004/2005.

This has been particularly problematic in the context of a capped MOU funding arrangement. Looking forward there is a need to define the policy and competitive framework within which the public and private providers of diagnostic imaging services invest and receive funding. ADIA recommends that the Government consider the following.

1. Clarity on Cost Shifting

Under the current Australian Health Care Agreements (AHCAs) the Commonwealth and the States agree that the range of services available to public patients should be no less than that which was available on 1 July 1998 and that all public hospital services available to private patients should be accessible on a public patient basis, where there is demonstrated clinical need. Meanwhile many public outpatient departments have been closed.

Further, clause 42 of the AHCAs state that where a patient chooses to be treated as a public patient, services that are a component of the episode of care (such as pathology and diagnostic imaging) will be regarded as part of the public episode of care and will be provided free of charge as public hospital services.

“Cost shifting” occurs when DI services are charged to Medicare when they would otherwise be funded by public hospitals. Examples of cost shifting are as follows:

- Hospital inpatients who would ordinarily choose to be public patients are encouraged or directed to elect to be private patients;
- Emergency department patients (who, under the Australian Health Care Agreements, are to be treated as public patients) are ‘encouraged’ or ‘directed’ to attend an alternative service provider such as an outpatient department to receive services from a medical specialist exercising a right of private practice or a GP;
- Encouragement of use of the ACHA’s clause allowing patients presenting at a public hospital outpatient department to be treated as private patients if the patient has been referred to a

named medical specialist who is exercising a right of private practice and the patient chooses to be treated as a private patient..

- Patients with a general referral (ie, the referral does not mention a staff specialist by name) seeking outpatient services are bulk billed and a claim sent to Medicare. There are public hospitals, e.g The Alfred in Melbourne, that openly advertise Medicare billed DI services direct to the public (see advertisement below).

**The Alfred now offers ultrasounds, MRIs, CT scans and X-rays
with no waiting, guaranteed parking and bulk billing.
So now it's not just our equipment that's state-of-the-art.**

The Alfred Hospital's new Radiology Centre is now open. Our scheduled appointment times, guaranteed parking and bulk billing* mean we can offer better radiology services to the Victorian community.

Our services include ultrasounds, MRIs, 64-slice CT scans, interventional radiology, angiography and Australia's first robotic digital radiography room. For more information please call us direct on (03) 9076 0357 or visit www.alfredradiology.org.au

*Bulk billing subject to Medicare rules and conditions.

4 CITY PEARCE
ON TECHWAY

At Alfred Radiology we have long enjoyed a reputation as one of the leading radiology departments in the country. Now through our recent exciting developments, we can offer a state of the art radiology service to the general public. With the opening of the new \$90m Alfred Centre we have doubled our radiology facilities and capacity, which means we can act as a 'one stop' service for patients, minimising the need for multiple hospital visits. You can now refer patients directly to Alfred Radiology. All radiology services will be bulk billed, except for non-specialist referred MRI.

Source: <http://www.radiology.org.au/Content.aspx?Page=9> accessed 5 July 2007

Using currently available data and systems it seems that cost shifting is impossible to identify and has been impossible to quantify in the context of the current growth in public sector claims on MBS.

2. Lack of competitive neutrality

Furthermore as public hospitals have more actively competed for MBS funded services, the lack of competitive neutrality has become a more significant issue.

Research undertaken by Access Economics identified a range of areas where public hospitals and their staff are benefiting from sources of competitive advantage that result in differences in cost structures between the public and private sectors:

- Staff related tax benefits that improve the ability of public hospitals to offer their radiologists and technical staff competitive remuneration packages. For example:
 - Public hospitals receive concessional Fringe Benefits Tax (FBT) treatment. Up to \$17,000 of gross fringe benefits can be paid to each public hospital employee before fringe benefits tax must be paid. Where an employee is provided with benefits above \$17,000, the hospital must pay the FBT. With staff costs for private practices representing an estimated 60% of revenue, this is a significant advantage for public hospitals.
 - Public hospitals are exempt from State/Territory payroll tax.
- Other tax exemptions, concessional taxation arrangements and government subsidies not available to private radiology providers that reduce the financial cost structure of public hospital radiology services compared with the private sector:
 - Public hospitals are often exempt from state or local government taxes. For example, in NSW land that belongs to a public hospital is exempt from all rates, other than water supply special rates and sewerage special rates. Land tax rates and thresholds differ across States/Territories (except NT where land tax does not exist). In Victoria and Queensland and possibly other states, all public hospitals are exempt from State land tax.
 - Public hospitals are subsidised by state governments and are not usually required to pay rent (or rent equivalents). By comparison the rental payments of private providers who pay rent for their premises would include state and local government taxes.
- “Facility fees” paid by hospital staff radiologists with rights of private practice are often not based on an assessment of the costs of providing these services to private patients.
- Capital access arrangements and purchase and accounting treatment of diagnostic imaging equipment are more favourable in the public sector:
 - There is evidence that public hospitals have access to cheaper capital than private sector entities because they can borrow at the State Government credit rating rather than at a business stand alone credit rating. The cost of capital for a private stand alone business is inevitably higher than for a government. For example, Victorian Government policy requires that public hospital borrowing be conducted through the Treasury Corporation of Victoria (TCV). Loans provided by TCV are guaranteed by the Treasurer and generally have significantly lower associated costs than debt provided by private sector financial institutions.
 - Public hospitals do not pay any capital levies to reflect the difference between public and private sector capital costs.
 -

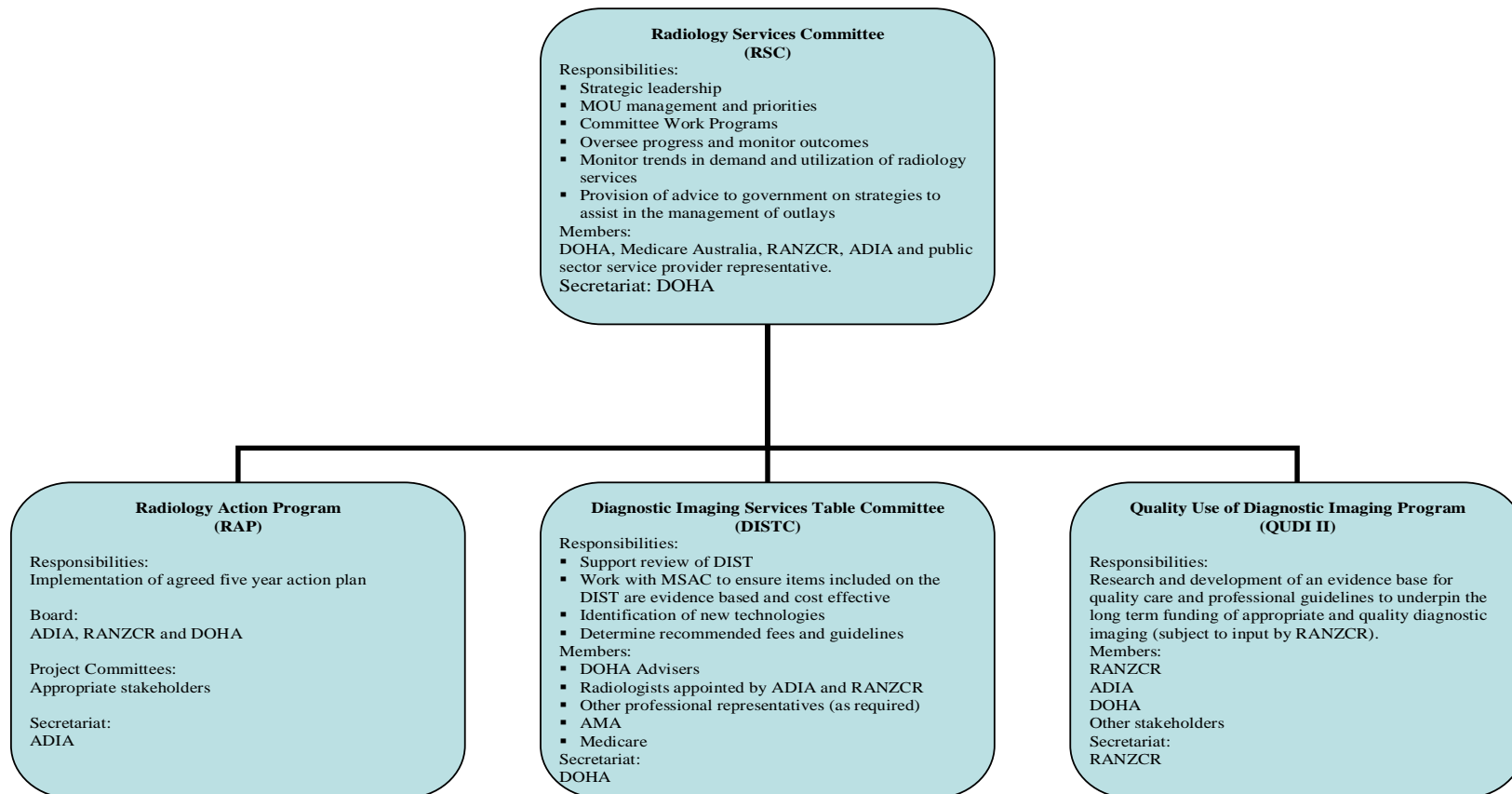
3. Open competition

Many hospitals are developing private practices within the public hospital and openly competing with the private sector. These business centres are operating using public infrastructure and bulk billing patients for procedures that private practices cannot afford to bulk bill.

Growth in public sector delivery of MBS services over the past 10 year period has not only lead to a significant shift in the private - public mix but has become a serious threat to investment in the private sector. Continuation of the current competitive advantages of the public sector together with the ongoing rebate freeze will see increasing private practice closures over the next six months as the private sector (and patient contributions) become more unviable. This will have significant implications for the overall government cost of delivering diagnostic imaging services and will put further pressure on hospitals that are already struggling to meet the needs of patients in many areas.

Note 1: Estimates based on analysis of LSPN data for July to December 2004 and 2005.

Attachment J – Future Diagnostic Imaging Funding Management Structure



Attachment K – Project Control Group Structures

The key to fostering co-operation and maximum productivity in any contractual relationship is to improve communication. A useful method of ensuring open communication and improving the dispute prevention process is the use of a Project Control Group.

The role of the Project Control Group could be compared to the role of a Board of Directors in that they are not involved in the day-to-day management of the work but rather set the broad direction to be implemented by the staff responsible for day to day management and administration of the contract.

The concept is to bring together on a regular basis management senior to that involved in the day-to-day operations of the work under the contract. Items for discussion can include:

- Performance perceptions by the different parties
- Reporting of Key Performance Indicators (KPI's)
- General business update and likely forward directions (to increase the other
- Participants understanding of that parties business needs)
- Explore possibilities for increased productivity
- Potential problems or disputes

Ideally the organization of the Project Control Group should be on the basis of a revolving Chair with the Chairmanship alternating between each party.

PROJECT CONTROL GROUP

The Principal intends to encourage the foundation of a cohesive partnership with the Contractor and its principal Subcontractors. This partnership will be structured to draw on the strengths of each organization to identify and achieve reciprocal goals. The objectives are effective and efficient contract performance and completion of work on schedule and in accordance with the Contract requirements.

To facilitate this partner initiative the Principal and the Contractor shall meet as a Project Control Group (PCG) every three (3) months. Persons required to be in attendance will be the Contractor's Project Manager and the Contractor's senior corporate manager responsible for the Region. It may be appropriate, on an as required basis, to have key supervision personnel of both the prime and principal subcontractors in attendance.

An integral aspect of partnering is the resolution of disputes in a timely, professional and non-adversarial manner. The establishment of a partnership charter on a project will not change the legal relationship of the parties to the contract, nor relieve either party from any of the terms of the contract.

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<http://www.contracts.com.au/~contracts/pcg.pdf>