nehta

Referrals Environmental Scan

FINAL REPORT

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Executive Summary

The NEHTA Board has determined that the organisation will focus on national e-health implementations in a number of the priority areas. These include referrals.

The primary purpose of this report is to inform NEHTA of the environment in Australia's health care system related to referrals. This knowledge will support the further development of its e-referrals program.

The Australian Standard AS 4700.6 (Int - 2007) states:

> *"... referral involves the transfer of care*
>
> - ***in part*** *(e.g. request for an opinion or a specialized service accompanied by relevant health event summary and record extracts)*
> - *or* ***in whole*** *(e.g. transfer from one GP practice to another with complete health record data and summary)."*

Referrals Drive Significant Activity and Expenditure

Referrals and subsequent reports are major transactions that touch nearly every part of the health care system. Referrals are a significant driver of health service activity and hence, expenditure. Data researched for this report suggests the following:

- Total referrals greater than 15M per annum[1]
- Total reports greater than 8M per annum

Most Activity is Between Community-Based Providers

General practice is the dominant creator of referrals (approx. 13M per annum), with the clear majority of these (approx. 12M) going to specialists and allied health providers. Referral activity involving hospitals is comparatively very small, but not unimportant.

Paper is Still Very Prominent as the Form of Referrals

The proportions of GP referrals that are:

- Computer generated paper from clinical systems is estimated to be up to 66%.
- Handwritten (or dictated and typed up by the practice's office staff) is estimated to be at least 33%.
- Electronically transmitted is estimated to be only 1-2%.

Similarly, the proportion of specialist referrals that are:

- Computer generated paper from clinical systems is estimated to be perhaps 10-20% based upon the low uptake of clinical systems.
- The remainder are typed (with some still hand-written), and estimated to the 80-90%.
- Electronically transmitted – estimated to be a small percentage of the computer generated referrals, although there are key exceptions in some geographic areas.

[1] This excludes pathology and radiology, as specified in the scope of the consultancy

The Referral Process has Significant Scope for E-Health

The following are the basic steps in the end-to-end referrals process. E-Health can help:

1. In the process of deciding whether a referral is required.
2. In the creation of a "quality" referral (These first two processes have considerable cost implications for the health care system).
3. In the assembly of the content for a referral, including supporting patient choice in the selection of the referred-to clinician or health care service.
4. In the transmission of the referral to the referred-to clinician.
5. In the receiving of a referral and in supporting the work-flow related to it by the referred-to clinician, e.g. rejection, acceptance, read, action, report, etc.
6. In the scheduling of an appointment for the patient with the referred-to clinician.
7. In the creation of notices and alerts to both the referrer and referred-to clinician on the status of the referral process.
8. In the creation of quality report(s) from the referred-to clinician to the referrer.
9. In keeping the patient advised of the status of their care as it relates to the changing roles of the referrer, and referred-to clinician, as their care progresses.

In addition, there is an opportunity to facilitate the design of specifications for standard templates for the structure of referrals and their content.

Opportunities for e-health to make positive impacts on the referral process exist in each of the steps above, and the infrastructure components being developed by NEHTA could be effectively utilised in each of the steps. It is acknowledged that implementing e-health infrastructure and/or solutions in all of the above steps is not solely NEHTA's responsibility. This report suggests a collaborative approach given there are many stakeholders and much complexity in achieving the desired outcomes from implementing e-health to improve referrals.

It is Critical to Create a Quality Referral

A referral is created as a result of a clinical decision made during the care of a patient. Referring clinicians typically do this based on their own judgement and sometimes after considering care pathways or guidelines relevant to the patient's condition(s). These resources can provide the clinician with useful scientific knowledge and evidence to support the decision-making process.

Once a decision to refer is made, the referring clinician has a responsibility to create a ***quality*** referral. This means that the referral should contain information that will enable the receiver of the referral to continue the patient's care as effectively and efficiently as possible. Hence, both **content** and **process** contribute to a quality referral.

Input from key clinical leaders stressed the importance of getting these front-end aspects of referrals right – as the highest priority.

There are Significant Risks Associated with Referrals

A referral is both a legal and business instrument. It helps to coordinate the continuity of quality care for patients by ensuring key information is shared appropriately.

When done effectively, referrals improve patient safety by reducing risk. Significant risks arise when there are issues with the referral content (e.g. inaccurate, missing or

irrelevant data) and the process (e.g. referral not received, patient appointment not made, or urgency not actioned). Serious legal cases, with large payouts, highlight the significant consequences where a referral or the referral process is suboptimal.

The poor quality of data in practice systems that would be used to generate content in e-referrals is highlighted as a major concern, and a likely source of significant risk.

These risks may be exacerbated with e-referrals solutions that auto-generate referrals from data held in practice systems and use templates that constrain the referrer expressing the narrative necessary for a quality referral. Inhibiting the thinking time and care required for referral quality could also contribute to increased risk. In addition, requiring clinicians to enter data into a computer, when they don't have the necessary skills heightens certain risks.

Challenges and Barriers for E-Referrals

In addition to risks, a range of challenges and barriers exist that would need to be addressed for e-referrals to be successfully implemented in Australia.

Chief amongst these is the low level of ICT maturity in specialist and allied health practices, given the significant volume of referrals involving these. A similar situation exists for aged and community care where ICT investment too has been relatively low.

The quality of data held in GP computer systems is raised as a risk to patient safety, but the "cleaning" of it is expected to be a significant challenge.

Privacy, whilst considered broadly to be a challenge for e-health is also an issue for e-referrals, as such solutions do include the sharing of sensitive patient information. Hence rules related to consent and disclosure also apply.

The challenge to invest sufficiently in change and adoption applies to e-referrals as much as any other ICT-enabled change. There is real concern about the lack of preparedness and ability to invest in this critical area. The risk of this is that NEHTA may do a great job in e-referrals (and other solutions) development, but the initiatives would eventually fail due to poor take-up, adoption and implementation of the changes needed to get the most from using the solutions.

Despite the risks, challenges and barriers, the potential benefits from applying e-health in the referrals process are believed to be significant.

Key Considerations for NEHTA in Referrals

In recognising that e-health is a journey, questions related to where to start are key. Two that provide initial focus to NEHTA's e-referrals program are:

- Where to apply e-health in the referrals process? I.e. in the steps above.
- Where in the health care system to apply e-referrals? I.e. which patterns of referrals "traffic" make sense to initially focus on.

A range of factors can inform the answers to these questions. These include where maximum benefits could be achieved, how and where risk might be best addressed, and what challenges and barriers exist and how might they be mitigated.

Investment is needed in Benefits, Change and Adoption, Not Only E-Health Solutions

Given the well-recorded history of failed projects that implement ICT solutions in health and other industries, it would be negligent to embark on a program like e-referrals without commitment to invest adequately in change and adoption.

There is a dependent relationship between these topics:

- Benefits cannot be achieved without change, and
- Change cannot be sustained without benefits.

The National E-Health Strategy states that change and adoption must be undertaken with the other key streams of the program in a tightly coordinated and concurrent manner.

Priority Opportunity Areas

There is undoubtedly potential for e-referrals to make a significant difference in Australia's health care system over the long-term and in all care settings that create and receive referrals. This report has identified four key areas that are considered high priorities for immediate focus. These are:

- Creating quality referrals.
- Reducing the risks related to referral work-flows.
- Defining standards and specifications for e-referrals content.
- Improving process efficiency for referrals.

1 The Referrals Environment

1.1 Introduction

The NEHTA Board has determined that the organisation will focus on national e-health implementations in the priority areas of:

- Discharge summaries.
- Pathology.
- Referrals (including specialist letters and notifications).
- Medication management.

Scope of this Report

The primary purpose of this report is to inform NEHTA of the environment in Australia's healthcare system related to referrals so that it can identify potential opportunities for its e-referrals program. Hence this report will be used as input to the development of the program and in providing indications of broad areas in which NEHTA may focus the development of its e-health capability.

The scope, relating to health care providers and settings, of the Environmental Scan[2] is:

- Referrals from GP to Dr (specialist or GP).
- Referrals from Dr (GP or specialist) to hospital (in-patient care, specialist clinic or Emergency Department).
- Referrals from Dr (GP or specialist) to allied health professionals, and referrals from allied health professionals to other health care providers.
- Referrals from Dr (GP or specialist) to aged care facilities, and referrals from aged care facilities to other health care providers.
- Referrals from Dr (GP or specialist) to community care service, and referrals from community care services to other health care providers.
- Referrals from specialist to specialist.
- Referrals from advanced nurse practitioners to other health care providers, where their scope of practice includes referrals.
- Reports from referred-to clinician to referrer (inc. specialist to GP/Specialist and from allied health professionals).

Within scope are the messages, information flows, systems and business processes associated with referrals and their management.

Scope Exclusions

While discharge summaries can be considered to be part of the end-to-end referral process, detailed consideration of discharge summaries is not within scope of this environmental scan project. NEHTA has previously conducted an environmental scan focusing on discharge summaries. How the discharge summaries are linked to referrals is within scope. This linkage refers to the linkage in the hospital environment, to

[2] NEHTA's Continuity of Care Reference Group (CCRG) authorised the scope for this project

'closing the loop' for the originating referrer, and to inform other health care professionals of the clinical status of a patient from discharge from hospital.

Pathology, radiology, and pharmacies are all excluded, as these areas are subject to other reviews and programs within NEHTA.

1.2 Definitions of "Referral"

In order to highlight the different purposes that referrals can have within the Australian health care system, several different definitions of referral are presented. Points of difference amongst these are discussed to clarify different meanings in different contexts.

Generic Referral – USA's NLM

The most generic definition of referral is from the Medline's Medical Subjects Heading (MeSH) database owned by the United States' National Library of Medicine (NLM):

> *"The practice of sending a patient to another program or practitioner for services or advice which the referring source is not prepared to provide."*[3]

This could provide a suitable definition for any referral, whether informal or formal, from any health care provider or service to any other health care provider or service.

Standards Australia

An important aspect of a referral not considered in the above definition is transfer of care. The Australian Standard AS 4700.6 (Int - 2007)[4] states:

> *"... referral involves the transfer of care*
>
> - ***in part*** *(e.g. request for an opinion or a specialized service accompanied by relevant health event summary and record extracts)*
> - *or* ***in whole*** *(e.g. transfer from one GP practice to another with complete health record data and summary)."*

Please see Appendix F for the fuller definition of referral as contained in the Australian Standard document.

It is important to note that most referrals usually only relate to an aspect of a patient's care, e.g. referral to an ophthalmologist for review of a diabetic patient's retinas, and that the latter example above is an exception.

Medicare Australia: Referrals within the Profession

Medicare Australia considers:[5]

> *"... a referral is a request to a specialist or a consultant physician for investigation, opinion, treatment and/or management of a condition or problem of a patient or for the performance of a specific examination(s) or test(s)."*

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[3] http://www.ncbi.nlm.nih.gov/sites/entrez?Db=mesh&Cmd=ShowDetailView&TermToSearch=68012017&ordinalpos=1&itool=EntrezSystem2.PEntrez.Mesh.Mesh_ResultsPanel.Mesh_RVDocSum

[4] Standards Australia 2004 Implementation of Health Level Seven (HL7) Version 2.3.1. Part 6: Referral and discharge summary. Page 7

[5] See Appendix E for further detail of Medicare Australia's definition and rules regarding referrals

This requirement can be satisfied in the current system in several ways. For example in an emergency a verbal or telephoned referral is sufficient for the initial consultation, but any subsequent consultation requires that a written referral be provided. For an inpatient referral a note made in the patient's medical record (chart) suffices. The unifying theme is to allow the service to be claimed and billed under Medicare Australia.

Delegation, Referral and Handover

The following has been drawn from the Final Consultation Draft of *Good Medical Practice: A Code of Conduct for Doctors in Australia*[6], which is being developed by the Australian Medical Council[7] on behalf of all state and territory medical boards in preparation for the introduction of national medical registration from July 2010.

> *"**Delegation** involves you asking another health professional to provide care on your behalf while you retain overall responsibility for the patient's care. **Referral** involves you sending a patient to obtain opinion or treatment from another doctor or health care professional. Referral usually involves the transfer (in part) of responsibility for the patient's care, usually for a defined time and for a particular purpose, such as care that is outside your area of expertise. **Handover** is the process of transferring responsibility to another health care professional. Good medical practice involves:*
>
> > *"4.3.1 Being satisfied that the person to whom you delegate, refer or handover has the qualifications, experience, knowledge and skills to provide the care required.*[8]
> >
> > *"4.3.2 Understanding that when you delegate, although you will not be accountable for the decisions and actions of those to whom you delegate, you remain responsible for the overall management of the patient, and for your decision to delegate.*
> >
> > *"4.3.3 Always communicating sufficient information about the patient and the treatment they need to enable the continuing care of the patient."*

To provide examples of these actions, **delegation** might occur from a treating specialist to appropriately skilled nursing staff to administer cytotoxic drugs as part of cancer treatment, or a practice nurse providing immunisations in a general practice setting. **Referral** would be as described previously, for example a surgeon may seek the assistance of a general physician to manage an elderly patient's medical problems during the pre- and post-operative periods. **Handover** may occur between two shifts of nursing staff in a hospital.

A referral has potentially three aspects

1. Conveying sufficient clinical information to the next health care professional(s) to allow "optimal patient care" to occur. The referral document may be reused by a number of health care professionals in an organisational setting. Provision of the necessary information ensures that (important) referrals are acted upon within an appropriate time frame. Complete information about a patient's condition will

[6] See http://goodmedicalpractice.org.au/draft-code/ (Accessed 13 May 2009)

[7] See http://www.amc.org.au/ (Accessed 22 May 2009)

[8] Note that this requirement, which is a common feature of referrals in general, lends itself to considering a Provider Directory "Yellow Pages" or similar of type directory as part of any e-referrals solution.

ensure that the receiving health professional or health care organisation can correctly prioritise resources such as appointment times, imaging equipment, operating theatre slots, or hospital beds.

Ensuing processes such as those just mentioned may need more than just atomic data. A narrative (the sequence of events, or the patient's story) is often the best form to convey information in which temporal aspects are vital to another practitioner's understanding of a patient's needs. In short this may provide the clearest explanation of the 'reason for referral', but is difficult, if not impossible, to atomise and preserve meaning.

2. Complying with relevant financial, managerial, and administrative requirements (e.g. Medicare Australia, Department of Veterans Affairs (DVA), and Workers Compensation). An example from private insurance might be the requirement that for people who have recently taken up health insurance that the condition they are seeking care for is not deemed to be pre-existing. While this information is usually provided to the insurance company on a separate form to the referral (with the consent of the patient), it is a consideration that the referrer may need to think about in choosing who to refer a patient to, e.g. the private or public system.
3. Meeting any medico-legal aspects of good record keeping and protocols, and if necessary to ensure that the referral is entered into a system (either paper or electronic or hybrid) that tracks important referrals to make certain they are appropriately acted upon.

Referrals are an essential element of clinical care in the Australian health care system. They allow the sharing of scarce resources such as clinical expertise, technical skills and interpretation of diagnostic testing.

Experience from many countries proves that an effective primary care system acting as "gate-keepers" can assist the overall health care system in reducing costs[9]. Generalists (e.g. GPs, physiotherapists, optometrists) managing as much of the care as possible that is within their expertise supports this aim.

Recommended Definition

Whilst it is not in the scope of this report to make a definitive recommendation, it is the authors' view that the Standards Australia definition should be seriously considered.

[9] Starfield B (2008) The future of primary care: refocusing the system. New England Journal of Medicine **359**(20):2087, 2091

1.3 The Referral Process and Scope for E-Health

A referral is created as a result of a decision made during the care of a patient. Referring clinicians typically do this based on their own judgement and sometimes after considering care pathways or guidelines relevant to the patient's condition(s). These resources can provide the clinician with useful scientific knowledge and evidence to support the decision-making process[10]. However the majority of current referrals are made without reference to a pathway or guideline. This is a known issue in health policy and leadership circles that is believed to be the major contributor to poor levels of consistency in the provision of recommended care.[11]

Once a decision to refer is made, the referring clinician has a responsibility to create a "quality" referral. This means that the referral should contain information that will enable the receiver of the referral to be as effective as possible in continuing the care of the patient. Ensuring the referral contains the right sort of information, the right quantity and that it is accurate and relevant are critical requirements. Accurate and current information related to providers and services *local* to the patient, who they may be referred to, is also essential.

After a quality referral is created it is then provided to the referred-to clinician (often via the patient), who continues the care of the patient. An appointment will be scheduled and other services, e.g. pathology, radiology, etc. may be required. The care may also require hospitalisation or treatment by additional service providers and the prescribing of drugs and/or other therapies. The treating clinician(s) again could consider care pathways, guidelines and relevant scientific knowledge in these processes.

Depending on the nature of the referral and the care required for the patient, the referred-to clinician would report back to the referrer on the patient's progress either during their care (e.g. with advice that a surgical procedure might be recommended) or when the episode-of-care is completed, in which case care of the patient is effectively returned to the referrer (e.g. on delivery of a baby). It is not uncommon, e.g. for patients with chronic conditions, that care continues on a shared basis, such that the referrer and referred-to clinician are in regular communication and with many reports sent to the referrer on a planned basis. Similar to the need to create quality referrals, the referred-to clinician, where it is necessary, is required to create a *quality* report for the referrer. There are clear similarities here too with discharge summaries.

In considering this complete end-to-end process flow, there emerge many areas where the application of e-health capability via NEHTA's e-referrals program could be beneficial. These include:

1. In the process of deciding whether a referral is required.
2. In the creation of a "quality" referral (These first two processes have considerable cost implications for the health care system, and one where knowledge and decision support has a clear role).
3. In the assembly of the content for a referral, including supporting patient choice in the selection of the referred-to clinician or health care service.

[10] See Appendix H for an example of where access to pathways and knowledge has reduced poor referrals

[11] Runciman B, Merry A, Walton M, 'Safety and Ethics in Healthcare: a Guide to Getting It Right', Ashgate, Aldershot, 2007

4. In the transmission of the referral to the referred-to clinician.
5. In the receiving of a referral and in supporting the work-flow related to it by the referred-to clinician, e.g. rejection, acceptance, read, action, report, etc.
6. In the scheduling of an appointment for the patient with the referred-to clinician.
7. In the creation of notices and alerts to both the referrer and referred-to clinician on the status of the referral process.
8. In the creation of quality report(s) from the referred-to clinician to the referrer.
9. In keeping the patient advised of the status of their care as it relates to the changing roles of the referrer, and referred-to clinician, as their care progresses.

In addition, for NEHTA's e-referrals program, there is an opportunity to facilitate the design of specifications for standard templates for the structure of referrals and their content.

Opportunities for e-health to make positive impacts on the referral process exist in each of the steps above, and the infrastructure components being developed by NEHTA could be effectively utilised in each of the steps.

1.4 The National E-Health Strategy and its Relevance

Endorsed by AHMC in December 2008, the National E-Health Strategy[12] outlines a strategic framework that guides e-health development for Australia over the next ten years.

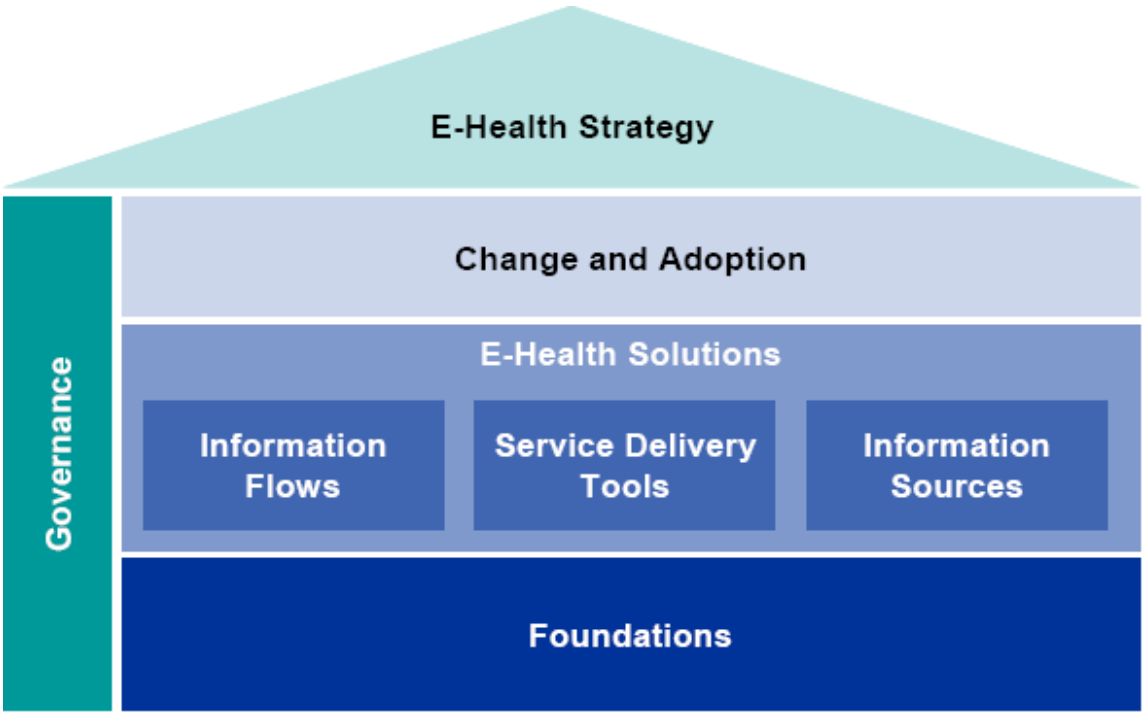

Figure 1: National E-Health Strategy Work Streams

[12] Summary downloadable from http://www.ahmac.gov.au (content in this section drawn from this report)

The strategy is a significant element in the Australian e-health environment that will impact referrals as much as any other key process. It includes four major strategic streams of activity as illustrated in the diagram above and summarised below:

- **Foundations** – Establishing the core foundations for electronic information exchange across the health sector. This work stream is fundamental as, without the basic ability to securely share health information there will effectively be no national e-health capability.
- **E-Health Solutions** – Stimulating the delivery of e-health solutions to the key users of health information. This work stream facilitates the delivery of specific computing systems and tools to address the high priority needs of consumers, care providers and health care managers.
- **Change and Adoption** – Fostering consumer, care provider and health care manager adoption of e-health. The aim of this work stream is to focus effort on achieving a 'tipping point' of stakeholder adoption of e-health solutions as quickly as possible.
- **Governance** – Ensuring the effective leadership, coordination and oversight of the national e-health work program. This work stream focuses on the establishment of appropriate national e-health governance structures and mechanisms.

The strategy includes seven guiding principles that underpin and inform the strategy. The above work streams address these principles. The strategy also importantly highlights the critical dependencies between these work streams and how they need to be undertaken in a tightly coordinated and concurrent manner to effectively deliver national e-health success.

Hence, NEHTA's success in applying e-health in the referrals process (an e-health solution in this framework) is dependent upon effective execution of related strategies in Governance, Change and Adoption, and Foundations.

The strategy also highlights the key information flows between care providers that the national e-health program will enable, as illustrated in the diagram below.

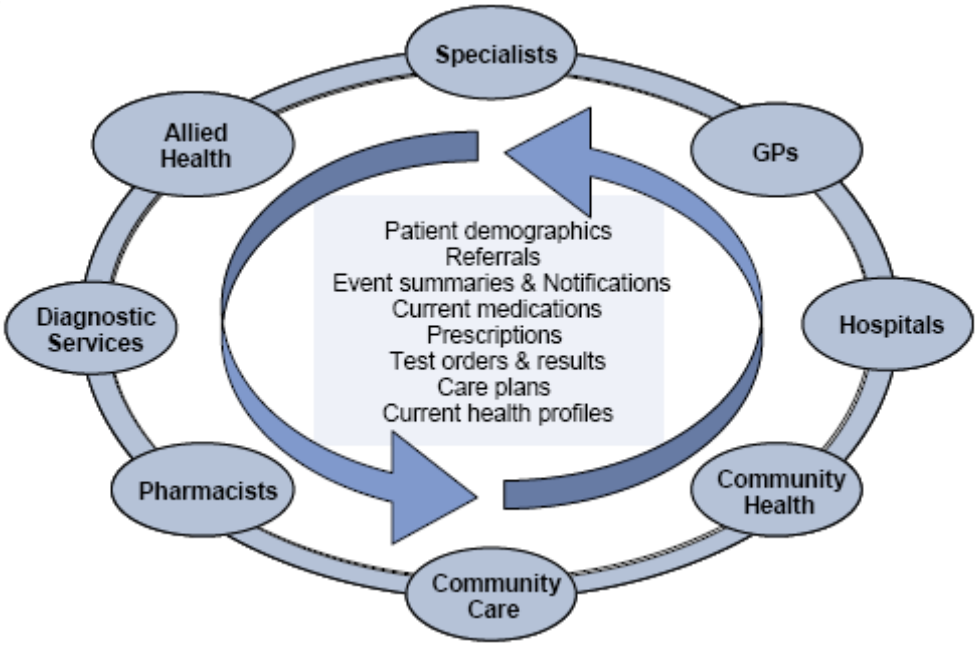

Figure 2: Key Information Flows

Connecting care providers is an important first step in the journey towards the building of national IEHR (Individual Electronic Health Record) capability. Referrals, as shown in detail later in this report, feature prominently as a major transaction that involves large numbers of many different types of care providers.

Referrals also create significant care delivery activity and therefore contribute to increases in health service delivery expenditure. Hence providing e-health capability that improves the referral process will importantly:

a) Progress the national e-health program, and

b) Enable process improvement opportunities that may create significant systemic benefits.

The strategy includes the following table that highlights priority e-health solutions.

E-Health Solution Category	Priority Solutions	Description
Electronic Information Sharing	• Referrals • Event summaries including discharge summaries, specialist reports and notifications • Prescriptions • Test orders and test results • Care plans	Improving the capability of patient, clinical and practice management systems to support key electronic information flows between care providers. These key information flows provide a basis for improved care planning, coordination and decision making at the point of care.
	• Consumer demographics • Current health profile • Current medications list	The key datasets that provide the summary of a consumer's key health data and their current state of health, treatments and medications. These datasets will improve the quality of service delivery and will ensure that consumers do not have to remember or repeat this information as they navigate the health system.
Service Delivery Tools	• Decision support for medication management • Decision support for test ordering	Encouraging the development of specific tools that improve the quality of clinical decision making and can reduce adverse events and duplicated treatment activities.
	• Chronic disease management solutions. • Telehealth and electronic consultation support	Encouraging development of specific tools that improve the management of chronic disease and the accessibility of care delivery. Chronic disease management solutions enable timely identification and monitoring of individuals and support management of their condition by providing automated reminders and follow-ups. Telehealth and electronic consultation tools enable improved rural, remote and disadvantaged community access to health care services.
Information Sources	• Health care reporting and research datasets • Health information knowledge bases	Implementing improved datasets for health care management that provide access to longitudinal and aggregated information for analysis, reporting, research and decision making. Providing access to a set of nationally coordinated and validated health knowledge sources for consumers and care providers.
	• Individual electronic health records (IEHRs)	Implementing IEHRs that provide consumers with access to their own consolidated health information and provide care providers with a means to improve the coordination of care between multi-disciplinary teams. IEHRs can also support the collection and reporting of aggregated health information.

Figure 3: Priority E-Health Solutions

Whilst this table is not intended to be exhaustive, it does highlight those solution areas that the strategy's authors consider worthy of priority funding due to the tangible nature of the care delivery and coordination benefits they can provide. The national strategy places referrals as an early key priority area for e-health solutions.

It also importantly highlights other solution areas that are necessary to support improvements in referrals, e.g. knowledge resources, decision support tools and standard definitions for key datasets.

1.5 Business Context for Referrals

There are significant business related aspects for referrals that are discussed below.

1.5.1 Requirements of the Funding Source

As a general rule of thumb, the business context for referrals is determined by the requirements of the source of funding for the resultant health care service. Such funding sources include:

- Medicare Australia.
- Department of Veterans Affairs.
- Private Health Insurers.
- State and Territory Health Departments.
- Workers' Compensation, Traffic Accident and similar third-party compensable services.
- Corporate Health Plans.
- The patient or relatives themselves – often as co-payments.

In addition to establishing the criteria upon which they would accept responsibility for paying for the service, the requirements specified by the funding organisations for referred-to services typically include:

- Whether a referral document is required or not, e.g. a referral is essential for payment of a Medicare Benefit for Consultant Physicians or Specialist services[13].
- If a referral is required, then typically the funding organisation provides:
    - The referrer with a template for them to use, or the specification of the minimum contents.
    - Rules about the service regime, e.g. number of sessions (e.g. for Medicare Australia's Better Access to Mental Health Care Initiative), the period for which a referral is valid (e.g. 12 months for GP to specialist referrals, and 3 months for specialist to specialist referrals), or related aspects.
    - Advice on the likely cost of the service for the referrer to pass onto the patient to assist with consideration of options and patient choice.
    - Sometimes lists of preferred health care service providers for the referrer to choose from, in consultation with the patient (e.g. this is particularly the case for DVA funded services).
- Whether a report back to the referrer is required; and if so a template or the report's content requirements.

[13] Health Insurance Act 1973 - Sect 19
http://www.austlii.edu.au/au/legis/cth/consol_act/hia1973164/s19.html (Accessed 4th May 2009)

Of note too is that Medicare Australia requires that all electronic referrals to Consultant Physicians or Specialists comply with Information Technology Standards under the Electronic Transactions Act 1999[14] [15].

These standards outline a range of requirements including items related to security and encryption. Due to the dominance of payments by Medicare Australia for services resulting from referrals, these have been adopted almost as de facto electronic messaging standards throughout the health system in Australia.

1.5.2 Risks Related to Referral Process and Content

In addition to the clinical-related risks resulting directly from the care provided to a patient who has been referred, there are also risks involved in the work-flow and content of a referral. These are relevant for both the referrer and the referred-to clinicians.

Apart from some circumstances related to emergencies, a referred-to clinician is not obligated to accept a referral. There is a range of risks associated with the declining of a referral. For example, even being "too busy" to accept another patient may be about avoiding the risks inherent from being over-worked; or also if the case is considered too complex, then it may be about avoiding the risk of errors from possible incompetent or negligent acts.

The content of a referral can result in risks. If too much information is included then the key important facts may be overlooked by the treating clinician and errors and/or harm may result. Similarly errors and/or harm can result if key information is absent or has mistakes. There is case law to show that such situations give rise to significant legal claims and payouts, and hence also upwards pressure on indemnity insurance premiums – not to mention the unfortunate experiences of the involved patients and their families and carers.

With the advent of e-referrals, the risks outlined in the above paragraph are heightened as clinicians become more routinely dependent upon computers to auto-generate the content of documents such as referrals. The thinking time and care required for clinicians in creating a "quality" referral is increasingly being challenged. In addition, computer systems may impose constraints on the form and content of the referral that don't suit the needs of the situation. These factors combine to increase risk in referrals and in particular e-referrals.

In addition to content, there are significant risks too related to work-flow around referrals. Section 1.3 above outlines the key process steps in referrals in the context of identifying potential opportunities for the application of e-health capability, and hence potential focus for NEHTA's e-referrals program. This also serves as a useful framework to consider risks in the referrals work-flow.

Major risks exist for clinicians if referrals are not dealt with in a timely and effective manner. Indeed, case law highlights that a referring clinician may, in certain situations, have exposure if they do not follow-up to check that their patient has seen the referred-to clinician. Similarly if a clinician is sent a referral and they do not review it in a timely

[14] Notice of Information Technology (IT) Standards under the Electronic Transactions Act 1999 for Electronic and Paper. http://www.medicare.gov.au/provider/pubs/medicare-forms/files/ma_notice_of_it_standards_electronic_and_paper_011005.pdf (Accessed 4th May 2009).

[15] Notice of the Information Technology (IT) Requirements under the Electronic Transactions Act 1999 (the Act) http://medicareaustralia.gov.au/provider/vendors/pki/files/ma_notice_of_it_requirements.pdf (Accessed 4th May 2009)

manner (including contacting the patient to schedule an appointment) then they too, in certain circumstances, can have significant exposure if the patient suffers because of the ensuing delay. There are cases that create precedents for these types of claims that are discussed in section 2.3.8 later in this report.

To a certain extent these types of issues are independent of e-health and are systemic issues in health care in general. However, the inclusion of intelligent work-flow solutions as part of an e-referrals program would go a long way towards reducing these types of systemic risks. If all referrals were electronic then it would be possible to know exactly at any point in time what the status of a referral was, e.g. has it been sent, has it been received, has it been read, has it been reviewed, has it been accepted, has it been rejected, has an appointment been scheduled for the patient, has the patient seen the referred-to clinician, has treatment occurred, has a report been created and sent back to the referrer, and so on.

This sort of e-health capability, and solutions that support decision-making and the creation of quality referrals, could have a significant positive affect on risk in the health system, and hence improve overall quality and safety.

1.6 Key Estimates Related to Referrals

This section presents the high level volumes for referrals. In part this is provided to help NEHTA in the next stage of "opportunity assessment".

The table below captures the headline estimates that are contained in the balance of this section of the report. Source references and where necessary the logic for estimating volumes are included in the detailed sections that follow.

Table 1: Overall Estimates of Referrals-related Communications (per annum)

Radiology and Pathology (included for comparison)	
Pathology Reports to GPs and Specialists	60 Million
Pathology Requests from GPs and Specialists	30 Million
Radiology Reports	16.5 Million
Radiology Requests	16.5 Million
Non-Hospital Referrals	
Referrals from GPs to Specialists[16]	8.72 Million
Reports from Specialists back to GPs	6 Million
Referrals from GPs to Allied Health Professionals	3.71 Million
Reports from AHPs back to GPs	1 Million
Referrals from Specialists to Specialists	1.5 Million
Reports from Specialists to Specialist	1 Million
Referrals from GPs to ACAT teams	0.025 to 0.1 Million
Referrals from GPs to HACC teams	0.03 Million

[16] Note: This includes referrals to both private practicing and hospital outpatients-based specialists

Hospital Related (both Private & Public)	
GP referrals to hospital	0.4 Million
GP referrals to hospitals' A&E	0.2 Million
Specialist referrals to hospital	Not established but estimated to be many times the number from GPs
Discharge Summaries resulting from 7.3 million admissions, with est. 1/3 private and 2/3 public	Not established but estimated to be perhaps half of the 7.3 million

A key observation from the above table is that referrals to hospitals from patients who see GPs are generally via the specialist that the GP referred the patient to. The specialists may be in private practice or in hospital outpatients. However, nearly all jurisdictions have adopted a private / Medicare Australia billing approach for much of their specialist clinic work.

In summary, the data researched for this report suggests the following:

- Total referrals greater than 15M per annum
- Total reports greater than 8M per annum

1.6.1 Referral Volumes

Some of the key estimates relating to referral volumes include:

- The number of GP patient encounters per year is approx 109 million[17].
- The percentage of those encounters that result in non-pathology and non-radiology referrals is about 12.5%[18] (or over 13Million). The break-down of where those referrals are sent is show in the figure below.

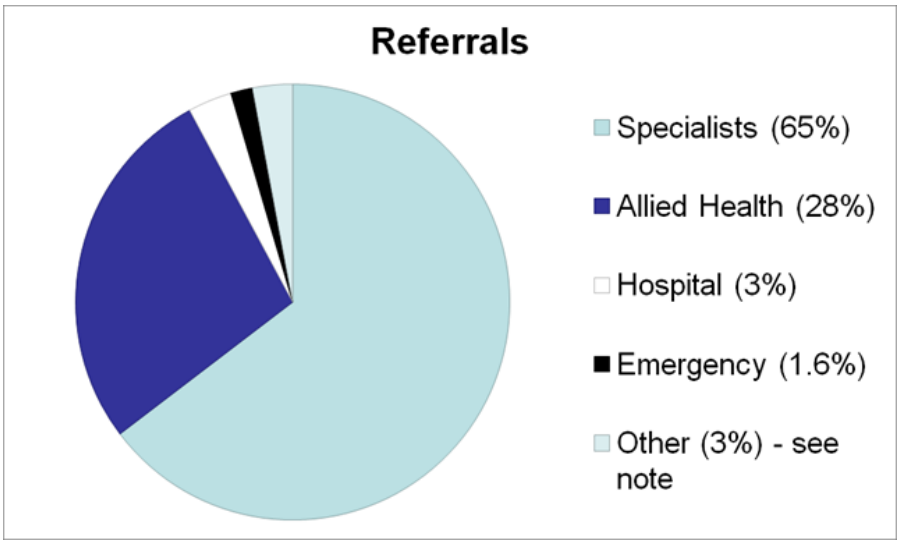

Figure 4: Proportion of Referrals from GPs (of approx. 13M)[19]

[17] Medicare Australia Statistics Monthly and Quarterly Standard Reports – Table 1.1 2007/2008

[18] AIHW "General Practice activity in Australia" table 11.1 Number of referrals and admissions using data from BEACH

A key observation is the very low number of referrals by GPs directly into hospitals or into A&E when compared with the overall number of referrals to Specialists and AHPs.

Furthermore the break-down of the specialists and AHPs referrals shows a reasonably even spread across the various specialists but a significant focus on psychologists and physiotherapists in the AHP area, as illustrated in the figures below.

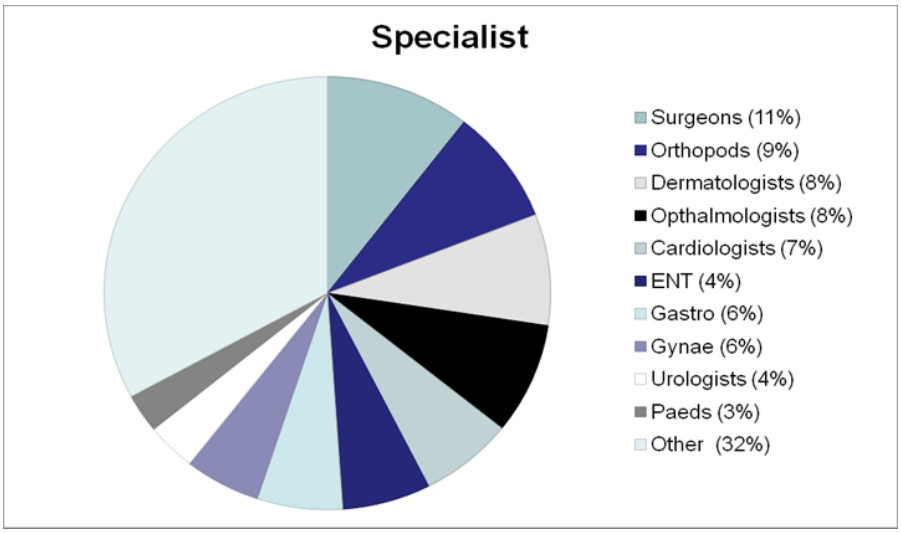

Figure 5: Proportion of GP Referrals to Specialists (of approx. 8.7M pa)

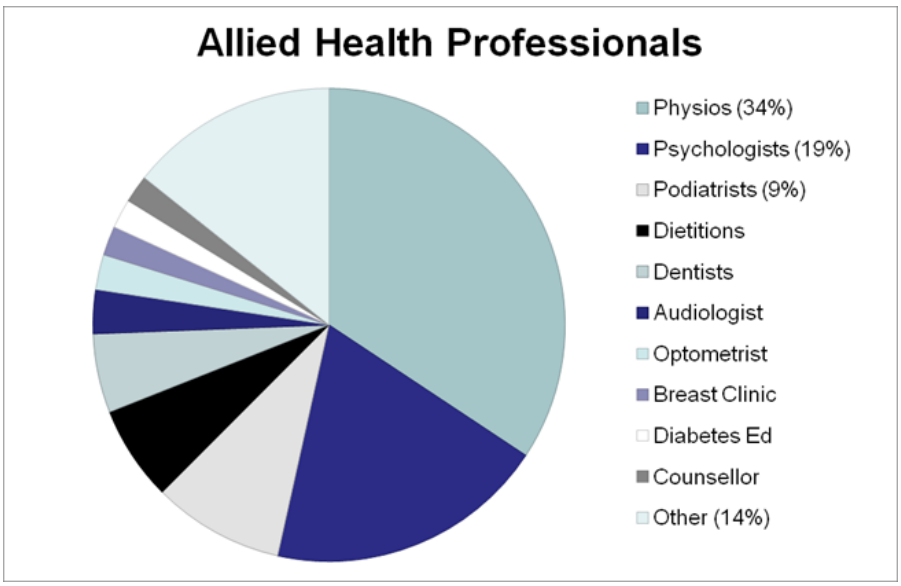

Figure 6: Proportion of GP Referrals to Allied Health (of approx. 3.7M pa)

- The number of ACAT (Aged Care Assessment Team) referrals from all sources is approximately 215,000[20]. The estimate of the source of these ACAT referrals has

[19] Note: Calculations from non-AIHW sources indicate that ACAT and HACC referrals are less than 0.3% each

[20] ACAT volumes provided by DoHA staff during telephone interview 5 May 2009

not been validated. However in telephone conversations with DoHA (Department of Health and Ageing) staff they indicated that GPs are one of the two major sources of ACAT referrals (they stated that the other major source is hospitals). A position that may not be unreasonable if that the 11.9% of GP referrals (25,580) to HACC (Home and Community Care) (see below) may be at the low end of the range and something less than 50% (say 45%) may be at the high end (96,750) to recognise GPs as being one of two major categories – this should however be subsequently validated with DoHA/AIHW (Australian Institute of Health and Welfare). Hence a range of say 25,000 to 100,000 may not be unreasonable as rough guide for GP referrals to ACAT teams.

- The number of HACC referrals from all sources is approximately 250,000, with the proportion of these coming from GPs being only 11.9%[21], i.e. approximately 30,000. The total of 250,000 HACC referrals has not been validated but is based upon other HACC data[22]. That data states that the number of HACC clients in 2007-2008 was 831,472.which was an increase of 30,162 from 2006-2007[23]. The number of cessations during 2006-2007 was 223,206[24]. Hence the assumption is that approximately 250,000 (253,368) new clients were accepted into the HACC program during 2007-2008. This assumption should be validated with DoHA/AIHW.

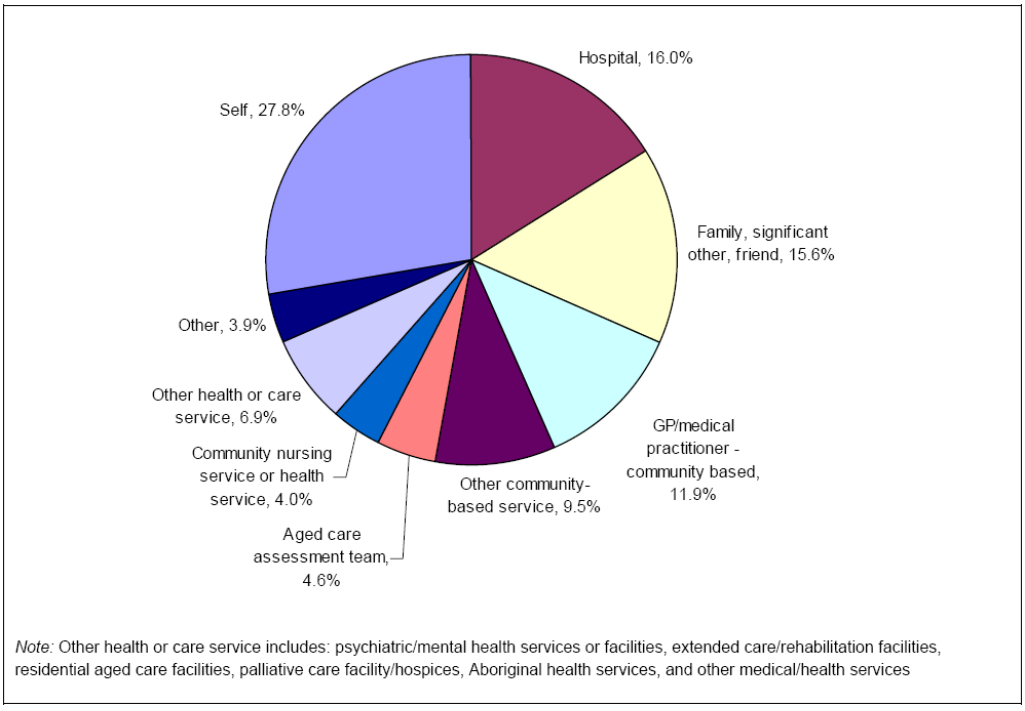

Figure 7: Proportion of Referrals to HACC Services (of approx. 250,000 pa)

- The number of private specialist encounters per year is approx 22.3 million[17].

[21] HACC Annual Bulletin 2006-2007 section 2.8

[22] "Report on Government Services 2009" section 13 Aged Care Services

[23] HACC Annual Bulletin 2006-2007 section 2.1

[24] HACC Annual Bulletin 2006-2007 section 2.9

- The number of referrals from specialists to other specialists is approximately 1.5 Million[25]. The break-down in terms of where those referrals are sent in rough estimates are:
    - About 25% to ophthalmologists.
    - About 25% to other surgeons.
    - 10% to paediatricians.
    - Most of the rest are to other physicians.
- The number of referrals from specialists to hospitals has not been reported as, after a careful search, useful data could not be found. This may warrant further investigation by NEHTA as required.

1.6.2 Report Volumes

The number of reports that are sent from specialists to GPs will be a proportion of all referrals. Anecdotally there is an expectation that the majority of referrals to specialists will result in a report. Detailed estimates could not be obtained, however it would not be unreasonable to assume that at least 70% of referrals to specialists results in a report, giving approximately 6 million reports per annum.

The number of reports that are sent from specialists back to specialists would be approximately 1 million if the same guide of 70% (above) is used.

The number of reports back to GPs from AHPs may be a much lower percentage with perhaps a 30% figure being not unreasonable. This percentage translates to about a further 1 million reports.

To help set context, the above estimates of 8 million reports can be compared with pathology reports which are probably in the order of over 60 million reports[26] and diagnostic imaging reports of over 16.5 million[27] per annum.

1.6.3 Levels of Computerisation

The level of clinical systems computerisation for GPs is about 90%. This estimate is based upon BEACH data collected in 2003 to 2005 that showed nearly 89% of GPs have access to a computer in their major practice address[28]. Also in August 2008, 86% of PIP (Practice Incentive Program) practices were participating in Tier 2 of the IM/IT incentive[29]. As this represents a slightly more sophisticated level of computer use, again it would be reasonable to infer levels of 90% as a working basis for analysis.

The estimates for the specialists are more complicated as key ICT solutions providers indicate that the take up of clinical systems varies markedly by speciality. The base line

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[25] Statistics provided by DoHA during consultation – note this is for 06/07 financial year not for 07/08.

[26] Based upon 30million collection items from Medicare Australia's reports (Table 6 for 07-08) and an estimated 1.5 reports per collection sent to 1.5 requesting doctors and copy doctors (experience of R Hewitt at S&N Pathology).

[27] Based upon 16.5 million diagnostic imaging services (from Medicare Australia Reports Table 6) and assuming no multiple reports and no copy doctors.

[28] Henderson J, Britt H & Miller G (2006) Extent and utilisation of computerisation in Australian general practice**.** *Medical Journal of Australia* **185** (2): 84-87

[29] http://www2.chi.unsw.edu.au/pubs/GP_IM_Literature_Review.pdf page 20 (Accessed 19th May 2009)

number of computerised specialist practices is not readily available although the number of practitioners is shown in brackets below:

- Dermatologists (about 350) – high uptake and probably the highest proportion of any specialty type although the absolute number is small.
- Obstetricians and Gynaecologists (about 1,400) – moderate uptake.
- Ophthalmologists (about 800) – moderate uptake.
- Physicians (about 7,300) – moderate uptake.
- Psychiatrists (about 2,700) – moderate uptake.
- Surgeons (4,000) – moderate take up but more prevalent amongst orthopaedic surgeons.

And for completeness the other specialist groups are as follows: anaesthetists (about 3,000), emergency medicine (about 1,300), medical administrators (about 400); pathologists (about 1,200) and radiologists (about 1,700). It would be reasonable to assume near 100% uptake amongst pathologists and radiologists.

The initial set of specialist groups total approximately 16,500 specialist practitioners. This may represent in the vicinity of 8,000 practices. This is predicated on most of the physicians and psychiatrists being solo practitioners and there being a proportion of these practitioners that are not in private practice.

The presence of clinical systems in specialist practices is modest with an estimate being in the range of 20% to 30% of *practices* based upon the following:

- The MSIA (Medical Software Industry Association) and other industry sources suggest the largest provider of specialist clinical systems is Genie. This may represent about 10-15% of practices. (Based upon their web-site and a stated position regarding the proportion of GP and specialist practices). Furthermore HCN is viewed as the other major high volume provider with perhaps a bit over 10% of practices (based upon their web site). After these two providers there appears to be a gap to the next group of about five providers Medtech, Zedmed, Shexie, JAM, Medilink, etc. There is a perception that collectively all of these providers will have less than either HCN or Genie. Further information is difficult to obtain due to commercial sensitivities about such information.
- Almost 100% of computerised specialists download electronic pathology and radiology results.
- Not all specialists within a practice will use their systems for recording the consultation process. Most will use computerisation for scheduling and billing purposes – leaving referrals and reports as essentially a manual process.
- For many specialists, the letter back to the referring doctor constitutes their consultation notes, i.e. they typically don't keep separate consultation notes and dictate their letter which includes all their findings, conclusions and treatment. So they probably think there is no need to keep a separate consultation record as all the necessary information is in letter(s).

Also see section 2.3.1 for the results of a survey commissioned by DoHA that reported on ICT use by specialists.

1.6.4 Methods of Referral Generation

Based upon the feedback from the consultation interviews, the proportions of GP referrals that are:

- Computer generated paper from clinical systems is estimated to be up to 66%.
- Handwritten (or dictated and typed up by the practice's office staff) is estimated to be at least 33%.
- Electronically transmitted is estimated to be only 1-2%.

Similarly, based upon consultation feedback, the proportion of specialist referrals that are:

- Computer generated paper from clinical systems is estimated to be perhaps 10-20% based upon the low uptake of clinical systems.
- The remainder are typed (with some still hand-written), and estimated to the 80-90%.
- Electronically transmitted – estimated to be a small percentage of the computer generated referrals, although there are key exceptions in some geographic areas.

1.6.5 Referrals and Discharge Summaries

One of the key findings identified during the assignment is the variation between the low number of GP referrals to hospitals (less than 0.5 Million) for admission and the high numbers of discharge summaries to GPs resulting from a proportion of the 7.3 million[30] hospital admissions (4.6 million to public hospitals and 2.8 million to private hospitals).

This variation is in part attributed to the fact that many hospital referrals are initiated by specialists rather than GPs. Furthermore many other referrals for hospital admission occur through Accident and Emergency Departments, when patients self refer or present via an ambulance.

Another contributor is that for a substantial proportion of admissions no discharge summary is generated. The main areas for this are likely to include renal dialysis (for which patients may typically have 150 separations per year) and chemotherapy where the repetitive nature makes a discharge summary unnecessary.

1.6.6 Pharmacist Referrals

Whilst outside of the scope of the project, as part of our review it was identified that there are situations in which GPs would refer to pharmacists and pharmacists produce a report back to the GP about a patient's medications. Two Medicare services are provided as examples below. Pharmacists Referrals will be addressed by the NEHTA Continuity of Care Program.

[30] AIHW 2008 page 350

Home Medicines Review (HMR)[31]

This program's objectives are to:

- Achieve safe, effective, and appropriate use of medications by detecting and addressing medication-related problems that interfere with desired patient outcomes.
- Improve the patient's quality of life and health outcomes using a best practice approach that involves cooperation between the GP, pharmacist, other relevant health professionals and the patient (and where appropriate, their carer).
- Improve the patient's, and health professional's knowledge and understanding about medications.
- Facilitate cooperative working relationships between members of the health care team in the interests of patient health and well being.

The review involves the patient's GP and community pharmacy, and as needed other members of the health care team (e.g. community nurses or carers). The consumer and the GP agree on a medication plan based upon the pharmacists report. For the financial year 2007/2008 there were 36,020 Medicare items processed for this program[32]. If on average this involves a referral, a report back to the GP and another health team member, then that approaches 100,000 referral-related messages per year.

Residential Medication Management Review (RMMR)[33]

This program is to provide greater continuity of care for eligible aged care residents, and is associated with the Quality Use of Medicines (QUM) program. It can be conducted by a pharmacist (pharmacist RMMR) or collaboratively with the resident's GP (collaborative RMMR). A GP must refer the resident for the latter service and collaborate in the review.

[31] See http://www.medicareaustralia.gov.au/provider/pbs/fourth-agreement/hmr.jsp (Accessed 23 May 2009)

[32] See http://www.health.gov.au/internet/main/publishing.nsf/Content/B2992EBF12BE7E1ECA2573D8007F91F3/$File/Project%20conclusions%20and%20refs.pdf (Accessed 1 Oct 2009)

[33] See http://www.medicareaustralia.gov.au/provider/pbs/fourth-agreement/rmmr.jsp (Accessed 23 May 2009)

2 Key Findings from Research and Consultation

2.1 Introduction

This chapter reports the results of research and consultation undertaken in preparation of this report.

Given the wide scope of the project, the prominence of referrals in the health care landscape, and the vast number of players involved in referrals, there is quite a lot of data and information presented. The organisations and individuals consulted for the project were generous with their time and information, for which the authors are appreciative. Hence the information in this chapter is very rich with many key items relevant to NEHTA's endeavours in referrals included.

2.2 Research and Consultation Approach

The consultancy project used an information model to guide the consultation and research activities focussed on the Australian health care environment in a standard and consistent manner. Based on analysis of the requirements of NEHTA and the authors' own considerations, the following is the list of topics included in the model:

- Legislative, funding and medico-legal aspects relating to referrals.
- Methods used to create, send and receive referrals (including, but not limited to ICT), and data related to quantities and proportions (e.g. of electronic compared to paper-based, etc.).
- Policies that relate to referrals and any policy-related initiatives, including their focus, expected benefits and outcomes (e.g. changing referral patterns, safety and quality, etc.).
- Initiatives related specifically to supporting and/or improving the referral process, whether using ICT or not, and identification of standards utilised.
- Aspects that highlight differences between the public and private contexts.

Information using the above model was sought in the research and consultation activities so that analysis and synthesis could be conducted in a standard and comparable manner.

The following are the broad organisational categories used for consultation and targeted research:

- Organisations involved in the delivery, funding and policy-making of health services in the private sector. This includes DoHA, DVA, Medicare Australia, professional associations, colleges, etc., as well as known individuals and health service delivery organisations.
- State and Territory government health departments.
- Key organisations that are leading the reform agenda for Australia's health system. This includes ACSQHC, NHHRC, the National Primary Care Strategy and various known key individuals.
- Australian ICT and E-Health suppliers that focus on referrals.
- International, for which a more constrained research approach was adopted.

Face-to-face interviews were conducted where possible. When this was not feasible teleconferences were arranged. If this was with an important organisation or individual, then two or more of the team may have taken part to ensure that as many aspects of referrals were covered in the process. For each interview a list of structured questions based on the above information model were used to ensure that all important questions were broached. However this was not allowed to limit the interviews in anyway.

The results of the consultation and research using the information model for the above categories of organisations and individuals are presented below.

2.3 Private Sector (and Funders/Payers of)

Organisations and individuals consulted in this category include:

- DoHA e-Health Branch[34].
- Royal Australian College of General Practitioners (RACGP).
- Australian Medical Association (AMA).
- Divisions of General Practice Victoria (GPV).
- GPpartners.
- Dr Jon Douglas.
- Ramsay Health Care.
- Drs Beres Wenck and Sara Bird.
- Allied Health Professions Association.
- Australian Physiotherapy Association.
- Australian Psychological Society.
- Australian Dental Association.
- Optometrists Association Australia.
- Department of Veterans Affairs.
- Aged and Community Services Australia.
- Aged Care Association Australia.

2.3.1 DoHA e-Health Branch

The authors of this report are particularly appreciative of the effort and thoroughness of the staff of DoHA's e-Health Branch in their submission as part of the consultation process for this project. The majority of content in this section is drawn from that submission.

Relevant Legislation and Regulations

A preliminary review of Commonwealth legislation surrounding current referral and request processes indicates no legislative or regulatory barrier to the electronic communication of referral letters.

[34] In addition, DoHA's Medical Financing & Analysis Branch (regarding allied health) and Aged Care e-Connect Section were consulted, with input from these included in other parts of the report.

The Health Insurance Act 1973 (The Act), Health Insurance Regulations 1975 and Health Insurance (Pathology Services) Regulations 1975 provide advice on the referral process. The Commonwealth's, States' and Territories' Electronic Transactions Acts (ETAs) facilitate electronic communication of information, but do not override specific Commonwealth, State and Territory legislative requirements (e.g. for handwriting).

Within The Act and regulations there appears to be no legislative barriers to creating, and transmitting e-referrals. For example, the regulations require referral letters to be 'written' or 'in writing'. Interaction with the Electronic Transactions Act 1999 extends the definition of writing to include computer generated writing, either on screen or printed. Consequently, the interaction of these Acts support electronic communication of referral letters.

The legislation does not denote specifications for sending referrals which would preclude electronic transmission. Again, interaction with the ETAs will support electronic communication of referral letters.

Similar, non-limiting requirements exist for the storage of referral letters. The specialist, Diagnostic Imaging (DI) specialist or pathologist is required to store the referral or request letter for a period of 18 months from the date the service was rendered. However, the legislation does not stipulate this to be in a hard-copy format.

Consequently, this preliminary review identifies no legislative barriers to creating, transmitting, receiving or storing referrals electronically. More specifically, there appears to be no requirements for documents to be printed or in ink. No mention is given to providing 'copies' to any body or organisation, which may create problems in an electronic environment. There is no mention of any specific form requirements. Although referrals to pathology services utilise form letters, these may be produced in an electronic environment. More specifically, current pathology request forms are developed in line with Medicare Australia requirements, and are therefore not discussed in detail in the legislation. Medicare Australia issued a *Notice of Information Technology (IT) Standards under the Electronic Transactions Act 1999 for Electronic and Paper*, which specifies the IT standards required for the electronic transmission, scanning and storage of referral and requests. This is entirely based on the Electronic Transaction Act 1999 and the compliance needs of Medicare Australia to randomly audit referrals (in accordance with the Health Insurance Act 1973).

Quantitative Data of Referrals

Australia's population is around 21 million and it is estimated that 85 per cent of the population attend a GP consultation at least once during any one year[35] [36]. Within the 2004-05 period, 10.9 per cent of all GP encounters resulted in at least one referral to a specialist and other secondary care providers[36]. Within this same period, 21.8% of all GP encounters resulted in at least one referral to a pathologist, imaging specialist or other investigative service. Although the exact cost of these referrals is unknown, in 2000, referrals produced secondary costs to GP services of over $4 billion[36].

[35] Australian Bureau of Statistics (ABS). (2006), Population Clock, [Online]. Available from: http://www.abs.gov.au/ausstats/abs%40.nsf/94713ad445ff1425ca25682000192af2/1647509ef7e25faaca2568a900154b63?OpenDocument (Accessed 15 May 2009)

[36] Britt, H., Miller, G.C., Knox, S., Charles, J., Pan, Y., Henderson, J., Bayram, C., Valenti, L., Ng, A. & O'Halloran, J. 2005, Bettering the Evaluation and Care of Health General Practice Activity in Australia 2004-05, Australian Institute of Health and Welfare, Australia.

Medicare Australia is yet to encounter an electronic referral in their auditing process and therefore does not have any indication of how widespread the use of e-referral is (August 2007).

Information on Specialists[37]:

- 82% have a desktop/lap top computer in reception/admin area of practice.
- 80% have a desktop/laptop in their office/work area of their practice.
- 99% use a computer on a daily basis.
- 63% have a desk top computer in their office/work area in their office.
- 84% use a computer for professional purposes on a daily basis.
- 34% have only a hard copy of patient records (the balance have combination) (over a third of specialists still keep only a hard copy of patient records).
- 61% use at least one software package (49% practice management, 21%, recall and reminder, 19% disease management, 13% care plan, 9% prescription writing.
- 47% use Medical Director (compared with 76% of GPs).
- 84% have an internet connection in the practice.
- 61% have broadband in the practice.
- 84% of specialists use the internet in their practice and manage their incoming mail.
- 47% of specialist practice managers use internet and manage incoming mail.
- 65% use internet for email for professional or practice purposes daily.
- 63% use internet for other purposes relation to professional or practice purposes.

A very significant figure was a change from 2003 to 2004 in specialists' consideration of web based services in the main practice:

- Online consulting – 91% said they would not consider in 2003 but this reduced to 63% in 2004.
- Access to diagnostic test results – from 88% who would not consider in 2003 to only 36% in 2004.
- Appointment scheduling – from 75% who would not consider in 2003 to 49%.
- Prescription renewal – from 89% who would not consider in 2003 to 62%.

There were also significant changes from 2003 to 2004 in the type of information accessed by specialists through the internet:

- Medical databases – up to 53% from 37%.
- Patient education – up to 42% from 37%.
- Drug information/pharmaceutical company sites – 34% up from 20%.
- Specific health information sites – (21% up from 14%).
- Medical professional sites – 14% up from 4%.

[37] ACNielsen. (2005), *The Fourth Annual Australian e-Health Study: Medical Practitioners Report*.

The Referral Process

The current paper-based referral process begins with the treating clinician identifying a need for a referral to take place. The physician then provides the patient with a referral letter. The patient may choose the specialist they wish to be referred to. However, the choice is usually made by the referring physician[38]. The patient is then responsible for scheduling an appointment with the specialist or testing facility.

The specialist consultation then takes place, during which the patient often hands over the referral letter to the specialist. In other situations the referral is faxed or posted to the specialist, especially if this is a hospital based service. The referral process is completed with a return of information from the specialist or testing centre to the referring clinician. For example, this is usually in the form of a letter (report) from the specialist or test results from a Diagnostic Imaging (DI) or pathology centre.

It is important to note that although a return letter (report) from the specialist is described in the referral process, it is not a compulsory component. However, this model is described as core to providing seamless and effective patient care[38].

The referral process also includes the transfer to, and storage of information by Medicare Australia. The specialist is required to provide Medicare Australia, via the patient's account, receipt or assignment form, with the patient's Medicare number, the name and address of the referring clinician (or the referring clinician's provider number) and the date of the consultation[39]. The referral letter is not sent to Medicare Australia, but may be requested at any stage by Medicare Australia. Instead, the letter is held by the specialist for 18 months from the date of the first consultation. These components of the referral process allow the consumers to receive payment from Medicare Australia according to the Medicare Benefits Schedule (MBS)[39].

Relevant Initiatives and Policies

Australia's National E-Health Strategy designates electronic referral as a priority solution to improve the capability of patient, clinical and practice management systems to support key electronic information flows between care providers. These key information flows provide a basis for improved care planning, coordination and decision making at the point-of-care.

The National E-Health Strategy provides a useful guide to the further development of e-health in Australia. It adopts an incremental and staged approach to developing e-health capabilities to:

- Leverage what currently exists in the Australian e-health landscape.
- Manage the underlying variation in capacity across the health sector and States and Territories.
- Allow scope for change as lessons are learned and technology is developed further.

[38] Piterman, L. & Koritas, S. 2005, Part II. 'General practitioner-specialist referral process', *Internal Medicine Journal*, vol. 35, pp. 491-496.

[39] Department of Health and Ageing (DoHA). *Medicare Benefits Schedule*, [Online], Available from: http://www.health.gov.au/internet/mbsonline/publishing.nsf/Content/Medicare-Benefits-Schedule-MBS-1 (Accessed 15 May 2009)

National standards are currently being developed by NEHTA to provide 'clear direction for information transfer for public sector health services in Australia'[40].

Current plans are to implement an initial set of core information exchange building blocks at a national level by 2010. This will include e-health foundations such as unique consumer and care provider identifiers, standards, rules and protocols for information exchange and protection, as well as underlying physical computing and networking infrastructure. These are necessary foundations on which IEHR systems can be built.

It should be noted that currently, in order to fulfil privacy legislative requirements, all health information which may be accessed by a number of parties electronically requires the written consent of the patient.

The Commonwealth has major policy, regulatory and funding roles in relation to specialist referral, prescribing and diagnostic test ordering through the MBS and the PBS, as well as policy and funding roles in aged and community care referrals. The Commonwealth has a keen interest in ensuring the safety and quality of health and aged care services, whilst ensuring that government funding is expended in an efficient and effective manner. Indirectly through the Australian Health Care Agreements (AHCAs), the Commonwealth has interest in intra- and inter-public health enterprise clinical communications, including passing of patients back to the community using hospital discharge referrals.

Trends Regarding Referrals

The Department expects that consumers will increasingly find their interactions with care providers supported by e-health. Electronic communication of health information will become commonplace with prescriptions and referrals being performed electronically.

The pathology sector is IT ready and routinely provides results electronically. Enabling e-referral in this sector, as well as electronic provision of results, could be an early win for e-referral.

Barriers for Uptake

The key barrier in terms of increasing the use of IT across the health system by non-GP specialist is the fact that 'specialists' are spoken of, surveyed and studied as a homogenous group. This critical mistake in seeing GPs as one group and specialists as another is misleading. While there may be commonalities in IT systems that will be attractive to specialists, there are few related to clinical use. Further, IT systems for clinical use have, for different specialities, higher value in different locations. For example, some specialists may see clinical systems of higher value in hospitals where they attend patients rather than in their private practices. Indeed non-GP specialists may value communication with hospitals as a priority over communication with GPs.

The AMA Medical Informatics Taskforce identified a range of barriers to uptake of IT by non-GP specialists[41]. They include:

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[40] National E-Health Transition Authority (NEHTA). (2006), *Towards a Secure Messaging Environment An E-Health Transition Strategy Version 2.0*, [Online]. Available from: http://www.nehta.gov.au/dmdocuments/Towards%20a%20Secure%20Messaging%20Environment%20v2.0.pdf (Accessed 15 May 2009)

[41] Australian Medical Association (AMA). (2004) *Final Report – Medical Taskforce on Informatics.*

Connectivity:

- Lack of connectivity of specialists to hospital facilities from outside.
- Interconnectivity of systems (e.g. in hospitals which have information silos).
- Lack of multi-location connectivity and catering for mobility of specialists.
- Lack of interoperability of different intra-hospital applications and systems.

Education, training, knowledge support functions:

- Lack of infrastructure and facilities were the most prevailing issues, i.e. broadband, textbooks and libraries online, access within operating rooms.
- Lack of funding to support Continuing Professional Development in informatics, and to support the provision of electronic Continuing Medical Education training.
- Clinical knowledge information available on the Internet is largely not tailored to specialist needs. (Even Cochrane is too unwieldy. The equivalent of HealthInsite is needed for each/all specialty, e.g. Medscape).

Incentives:

- There is no payment of doctors related to better electronic data collection and use.
- Colleges should mandate the availability of electronic access to electronic knowledge bases in operating rooms.
- Funding is not available for tele-consulting or electronic second opinions.
- Self-education in informatics should be an accreditation requirement.
- Information Management and Continuing Professional Development should be tied to the Continuing Medical Education point system.

Specialists have consistently been looked upon as a homogenous group with similar needs. The reality is that the nature of a specific specialist group will determine a range of different IT needs and the location (s) that will make the technology useful. In terms of higher levels of computer use for clinical purposes it will be necessary to identify the specific needs of each specialist "craft" group.

There has been a long held perception that connectivity between GPs and specialists is a priority need. However, while this is the case from the GP perspective it is not necessarily so for non-GP specialists. Connectivity between hospitals and practice is a higher priority for many non-GP specialists. The transfer of patients from acute care to primary care involves the need for communication between hospital systems (specialists' discharge summaries) and GPs and not necessarily directly from specialists to GP.

In looking for commonalities across all specialties the following priorities for facilitating practice administration were identified by specialists[41]:

- Exchange of pathology/test results (75%).
- Electronic Medicare Australia claiming (69%).
- Communication with other health professionals (67%).
- Exchange of medical records (56%).
- Provision of patient education (64%).

Electronic health functions tend to have high up-front financial costs[42]. There may also be a financial burden associated with decreased revenue during the transition period[42]. Baron et al.[43] suggest that it is naïve to assume that small practices will move to electronic health records without financial support and the same is true of the shift to e-referrals.

In addition, many analysts feel that for a computerised office to be economically feasible, it must consist of more than five doctors. Unfortunately, since many practices consist of fewer than five doctors, this leaves out about half of the medical profession. Hence, the makers of medical practice software and computers that make health records electronic have a big challenge if they are to fully penetrate the medical industry. That challenge is to deliver a quality product that is more affordable for the small practitioner[44].

A further barrier facing the usage and uptake of e-documentation universally is that the process requires transforming health care through IT with clinical business process re-engineering rather than simply automating old processes[45].

There is growing evidence of market failure in the current approach to encourage vendor-driven solutions to e-referral. Licensing fees are charged by desktop clinical software vendors to doctors for facilities to receive and send electronic messages. There is also growing concern and evidence of proprietary product and system developments both by clinical desktop software and clinical messaging vendors that are incapable of interoperating with other vendor's systems, thus complicating and limiting the implementation of e-referral. Where there are non-interoperable systems, wasteful location-specific effort and technical expertise needs to be applied, at cost, to overcome these system deficiencies.

Another barrier to implementing an e-referral system is the need to integrate a future system with medical information systems, which doctors and requesting centres use to support their clinical tasks. Similarly, pathologists and DI specialists already have in place technology and software which supports the return stages in the pathology and DI referral process[40]. The introduction of yet another IT program to perform similar tasks may complicate the issue.

Lack of time to consider acquiring, implementing and using a new system is perceived as a barrier to the successful implementation of an e-referral system. Similarly, a lack of scientific evidence promoting IT solutions is cited as a barrier to the uptake of new technology[46]. Consequently, the implementation of an e-referral system should provide adequate and timely information for stakeholders. This will allow time to consider the changes and act accordingly.

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[42] Miller, R.H. & Sim, A. 2004, 'Physicians' use of Electronic Medical Records: Barriers and Solutions', *Health Affairs*, vol. 23, iss. 2, pp.116-126.

[43] Richard J. Baron, Elizabeth L. Fabens, Melissa Schiffman, and Erica Wolf 'Electronic Health Records: Just around the Corner? Or over the Cliff?' *Ann Intern Med* 2005; 143: 222-226

[44] Di Stefano, F. 2007, 'Healthcare, Computers and the Bottom Line', *E-Commerce Times*, [Online]. Available from http://www.technewsworld.com/story/58565.html (Accessed 15 May 2009)

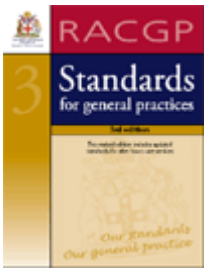
[45] Ash, J. 2007 'How to Avoid an E-Headache', *British Medical Journal*

[46] Audet, A., Doty, M.M., Peugh, J., Shamaskin, J., Zapert, K. & Schoenbaum, S. 2004, 'Information Technologies: when will they make it into physician's black bags?', *Medscape General Medicine*, vol. 6, iss. 4.

Implementing any new IT system in health requires developing user understanding and skills. Provision of appropriate training of staff will be a key issue in the successful implementation of any e-referral system.

2.3.2 Royal Australian College of General Practitioners

The Royal Australian College of General Practitioners (RACGP)[47] represents over 19,000 members, including over 6,000 members in the National Rural Faculty. It is the largest general practice representative body in Australia and the largest representative body for rural general practice. As part of the RACGP's work in the safety and quality area, it produces standards that are used by general practice accreditation agencies (AGPAL, GPA Accreditation plus).



The RACGP's third edition of Standards for General Practices[48], developed in 2006, contains a number of recommendations that pertain directly or indirectly to referrals. The relevant standards and criteria are listed in full in Appendix D.1.

The key criterion (1.6.2) is "Our referral documents to other health care providers contain sufficient information to facilitate optimal patient care"[49]. This emphasises that the primary purpose of a referral is to improve patient care and that this is done most efficiently and effectively if sufficient salient information is shared with the referred-to clinician.

Other criteria address the following issues:

1. **A patient centric approach**, whereby patients are informed of the purpose, importance, benefits and harms related to a referral. While this information may not be complete, for a referral for example to a neurosurgeon, it is an opportunity to share important information with patients. There are opportunities here for decision support systems to provide not just the referrer with more information but the patient as well.
2. Patients are given information about possible costs when referred to another health professional for treatment (e.g. private physiotherapy) or investigations (e.g. upper endoscopy).
3. Practices need to be aware of the range of services available in their area, and how arrangements may differ between private and public providers of the same service. This ensures that patients are given adequate choice.
4. The criterion 1.6.2 states "For both medico-legal and clinical reasons, practices need to keep copies of important (non-routine) referral letters…". This statement reflects the lowest common denominator of a paper based practice where referral letters are hand written and the advice would be that a photocopy of the letter should be retained. It also notes the need to record in the patient's notes any urgent telephone referrals. This is clearly easier to achieve if an electronic health record system is used to generate referrals.

[47] www.racgp.org.au/about

[48] RACGP Standards for General Practice (3rd Edition) http://www.racgp.org.au/standards (Accessed 21 April 2009)

[49] RACGP Criterion 1.6.2 Referral documents http://www.racgp.org.au/standards/162 (Accessed 21st April 2009)

5. From the two criteria relating to clinical risk and practice systems (3.1.2 and 1.5.4 respectively) it would seem reasonable to infer that for an important referral (e.g. for a suspected diagnosis of cancer) a system should be in place to ensure that the referral was received, and that the patient did attend or undertake the service. This too is easier to achieve if an electronic health record system is used to generate and track referrals. Some of the GP desktop systems allow for the tracking of referral letters to ensure that patients have attended.

   If GPs regularly get information back about attend/not attend specialist appointments then it is likely that courts will set a different standard of duty of care on GPs, i.e. it is the GP's responsibility to ensure follow up. While this might not be a key issue for e-referrals it would be a significant issue for GPs overall and should only to considered within a legal framework.

2.3.3 Australian Medical Association

Ms Lorincz and Ms Grybaitis (AMA Policy Advisors) and the AMA Council of General Practice provided feedback. The Council's responses to a list of questions submitted to the AMA were de-identified and forwarded via email. From both the interview and email the following points were extracted:

- They considered that the majority of GP referrals to specialists/consultants were generated from a template from one of the clinical desktop systems. The vast majority of referrals were either faxed, posted &/or handed to the patient.
- They were aware of a small number of referrals that were sent by (often unencrypted) email. Of the relatively small percentage of consultants who used email to send letters back to referring GPs or other specialist colleagues this too was often via unencrypted email.
- They reported that very few specialists were fully computerised, but were unable to provide a percentage.
- They reported a poor understanding of PKIs (Private Key Infrastructure) by the majority of GPs and specialists. They were aware of a number of projects in this area (e.g. GPQ's (General Practice Queensland) project with the vendor Medical Objects) and considered that this was a valuable contribution to the greater uptake of e-health.
- They observed it was important for any e-referral system to streamline work processes, integrate with clinical practice management software and be simple and intuitive to use. An e-referral system should not preclude the use of a paper-based system.

Both during the interview with the secretariat and from the email feedback from the AMA Council of GPs, concern was raised about the change management issues as a very significant barrier. The AMA has a Position Statement entitled Referrals with the Profession – 2007 that sets forth just over forty recommendations regarding referrals between GPs and consultants[50].

This is contained in Appendix D.2 in full as it outlines significant requirements related to referrals.

[50] AMA Referrals within the Profession – 2007. http://www.ama.com.au/system/files/node/2804/Referral_within_the_Profession_2007.pdf (Accessed 20 April 2009)

2.3.4 GPV

GPV is the peak body for Victorian Divisions of General Practice. About 90% of GPs are members of the 29 divisions in the state. All Victorian divisions are members of GPV, the Victorian state-based organisation (SBO) that provides representation and advocacy, support, advice, information and resources to divisions. GPV is active in policy analysis and representation, and provides state-wide co-ordination of national and state initiatives being implemented through the Divisions Network.

GPV was consulted for this project as a sample GP Division's SBO. Key points from discussions with GPV include:

- GPV works closely with the Victorian Department of Human Services (DHS) on a range of topics and programs related to improving health system performance in Victoria. This includes the GP Liaison Officer program, which has provided valuable input and testing of the usability and content requirements of referral templates – a key output being the Victorian Statewide Referral Form (VSRF).
- GPV and DHS then worked closely together with GP software vendors who have incorporated the VSRF into their products[51]. The purpose of the VSRF is to provide a standardised mechanism for referral from general practice to state funded health providers, as a replacement for the multitude of service specific referral forms.
- The VSRF is the preferred format for GP referrals to care services funded by DHS. This includes: Community Health, Home & Community Care, Aged Care Assessment and so on. The VSRF is also suitable for referrals to hospital outpatient services where a service specific template does not already exist.
- The VSRF is supported in state-wide policy on e-health and will further develop to meet both clinical and technological requirements. The aim is to enable GPs to send and receive relevant, agreed demographic and clinical information to services and for this to occur securely and seamlessly from their clinical information system.
- GPV is strongly driven to ensure all key stakeholders are onboard with the e-health journey in Victoria, and critically sees too that national approaches and solutions are essential. It sees that work done to-date in Victoria has been very effective in gaining stakeholder engagement across the sector and in increasing awareness and use of systems that improve care delivery. GPV believes the VSRF is a good foundation for a national referrals template.
- The move to a national template using the VSRF as the base will require endorsement and involvement from a range of organisations including NEHTA, MSIA, DHS, RACGP, ACCRM and GPV. GPV believe there is significant fragmentation in this area and also vested interests that need to be dealt with. Software vendors for example have a major overhead in having to incorporate all the different template standards that exist across the country into their products – with variations caused by local and regional needs as well as the different referred-to health service and provider types and sources of funding.

[51] See http://www.gpv.org.au/content.asp?cid=11,137&VSRF (Accessed 14 May 2009)

- GPV believes NEHTA needs to outline a roadmap for standards for e-referrals and other health messages that makes it clear to software vendors and users of their products what standards are to be used in what situations and when. It highlighted a current debate around HL7 V3 with CDA, and HL7 V2.4 as an example.
- GPV is supportive of DHS's CareDIRECT project and sees it as a most useful marriage of DHS, general practice and allied health. CareDIRECT commenced as a Health*Connect* project.
- GPV is eager to see standards developed and solutions implemented for service directories that can reduce the vast numbers of current directories that often have out-of-date or inaccurate data in them. Tight integration of this with messaging services, like e-referrals, is essential.
- Divisions of GP are best positioned to provide a support network for primary care. Allied health, specialists and aged and community care providers don't have anything similar, yet all will require support similar to what Divisions provide GPs in order to participate effectively in a connected health system using e-health solutions.
- Data quality is viewed by GPV as being a major problem that urgently needs to be addressed, as it will be a significant barrier to achieving benefits from e-health in primary care. It believes data quality accreditation is essential and requires finding a way to get clinicians into the habit of entering quality data into their systems. A multi-program approach is needed with both carrots and sticks, e.g. including skills improvement for data entry, and tools that can highlight data quality issues. A change of mind-set is required so that clinicians see data as an "asset" and hence is of value and deserving of attention.
- GPV is concerned that change management tends to be always drastically under-funded in e-health-related programs, including from DHS.
- Interestingly GPV thinks e-referrals may have a long but ultimately limited life. It thinks referrals have a role while data about patients is fragmented across many providers. But when shared electronic health records are common-place GPV sees that the referral could in concept become simply a link to key data in the patient's IEHR, sent by the referrer along with the reason for the referral.
- GPV thinks e-health capability needs to be considered in a range of places in the referrals process and not just in the messaging part. Knowledge and decision support at the front-end to ensure appropriate and quality referrals will have a far greater impact on the health system than being able to securely and confidently send a referral electronically to a recipient, which is also important.
- Knowledge of primary care in NEHTA and the State and Territory Health Departments needs to be improved. GPV thinks that an over-emphasis on public hospitals and health services may dominate thinking in e-health and hence opportunities in primary care may be overlooked – particularly opportunities in patient-centred health service integration and coordination, i.e. in the areas where the sectors intersect. Referrals is such an area.
- It is reasonable that State and Territory Health Departments should look for opportunities where e-health can improve the interface they have with primary care, but GPV questions whether it is appropriate for NEHTA to limit its focus similarly. GPV notes the significant level of referrals activity between community-based providers compared with activity involving hospitals and

suspects there would be value in NEHTA's national e-referrals program considering transactions that don't include hospitals with similar priority.

- GPV sees as practical the initial inclusion of computer-generated paper as a form of messaging in an e-referrals solution.
- In pursuit of its goal to support Divisions and hence GPs, GPV believes it would be of value that a feature check-list / directory of software and service providers exist, as an aid to purchasing decisions. It sees that MSIA would need to be involved to keep such a database up to date and that it would reduce duplication of effort and improve standardisation. It could also be linked to accreditation.

2.3.5 GPpartners

GPpartners[52] was consulted for this project in order to obtain views and thoughts on referrals from a GP Division with a record of e-health innovation. GPpartners is located in Brisbane's north. Its catchment includes more than 800 GPs, over 200 general practices, three of Brisbane's major public hospitals, several private hospitals and a population of almost 600,000 – making it the largest division by population size in Australia. GPpartners is a member of General Practice Queensland (GPQ – the Queensland SBO), and collaborates with GPQ and other organisations, including Queensland Health (QH), to develop and deliver e-health solutions. GPQ facilitates state-wide collaboration of more than 20 GP Divisions.

Key points of relevance from GPpartners include:

- While GPpartners itself does not create or receive referrals it, like other Divisions, supports work practice improvement objectives on behalf of their member and non-member GP practices. This is done in a variety of ways, including for example negotiating with commercial suppliers on behalf of member practices for Division-wide access to related e-health products and services, providing first-line user technical support, and in some cases running programs themselves that offer e-health services to capture and route electronic referrals to member practices.
- GPpartners has a relatively advanced e-health program[53] that, amongst other things, includes a secure electronic messaging service[54] using the commercial offering of Medical Objects. This includes the ability to send e-referrals and reports using a common messaging platform. The following quote, from the GPpartners web-site, highlights how its members benefit from a state-wide initiative that GPQ has developed and that GPpartners has collaborated on.

> *"As part of General Practice Queensland's iHealthCare program, general practices can take advantage of a free Medical Objects software license until June 2010. Medical Objects is a safe and secure messaging system that allows you to send and receive patient and other clinical information electronically. In addition to the free license, GPpartners is offering local GPs and practices: free*

[52] See http://www.gppartners.com.au/ (Accessed 13 May 2009)

[53] See http://www.gppartners.com.au/page/Programs/ehealth/ (Accessed 14 May 2009)

[54] See http://www.gppartners.com.au/content/Document/infosheet_mo_gps.pdf (Accessed 14 May 2009)

installation, training by GPpartners' certified Medical Objects trainers – at no cost and help desk and support."[55]

- GPpartners strongly advocates the following with regards to e-health in its dealings at practice, division, state and national levels:
  - Common agreement for clinical data content to be exchanged.
  - Use of standard PKI methods.
  - Use of identifiers.
  - Recognition that referrals in e-health is not just about point-to-point messaging, but a broader agenda progressing towards shared records, etc.
- GPpartners works closely with QH more broadly in health service integration policy and program development relating to health services in its geographic area in Brisbane, and also specifically in e-health. It welcomes QH's program to electronically send discharge summaries to GPs, and looks forward in anticipation to QH's ability to receive clinical information electronically, especially referrals. Priorities relate specifically to the routing of e-referrals within QH and the allocation and management of PKI certificates across its network to support secure messaging.
- GPpartners believes e-referrals should be sent electronically in both human and machine readable form. This is so that familiar formats, layouts, etc. can be viewed by the receiver thus supporting user adoption and change management, and also in machine-readable form so that atomised data can be effectively stored and then used by the receiver's computer system.
- The booking of an appointment for a patient from a referral is considered by GPpartners to be just as important as the referral itself. In addition, it feels that the letter/report back to the referrer should be in scope for any e-referrals program. GPpartners stressed that scanning paper documents is a burden for General Practice, so having the ability to be fully electronic is a key requirement. Although any such system should also be able to send documents in paper-form by post or fax if the receiver requires it that way.
- NEHTA needs to drive the specification of standards for referral content so that vendors can incorporate them and offer their products' users a simpler process for creating e-referrals.
- The politics of health need to be considered in strategies for e-referrals. For example, a referral creates a demand for health services that usually involves government funding – the source jurisdiction of which (State or Federal) either wishes to minimise expenditure or cause the other to have to pay. Hence demand management strategies for health services are of great interest to government. These can include alternative approaches to referrals or, when they are necessary, ensuring they are "appropriate". This highlights that different motivations are at play which need to be considered. The pressures of demand management from both State and Federal perspectives affect the processes and the need too for an effective and standardised national referral workflow and information system.
- GPpartners is working with QH on its Map of Medicine project as it relates to practices and QH facilities in its geographic area. The QH project will provide all

[55] See http://www.gppartners.com.au/page/practice_support/ehealth#secure (Accessed 19 May 2009)

GPs in Queensland access to a web-based knowledge support tool that, amongst other things, aims to improve referrals from GPs to Queensland Health services and facilities.

- An interesting aspect raised by GPpartners relates to the potential for consultations where the clinician and patient need not be physically together, e.g. via telemedicine, and how e-referrals might work in such a scenario. Tele-consultations are definitely part of the future, and further improvements in efficiency and patient impact would be possible if the consultation could be informed and organised via electronic means.
- Rules related to routing, alerts, etc, are being developed in an e-referrals project that GPpartners is currently undertaking with the Royal Children's Hospital. An interesting outcome of this is that while PKI-based security is required for the actual e-referral it is not for other related messages, e.g. notifications, that don't contain sensitive patient data.
- GPpartners is also rolling out a Shared Electronic Health Record service called Health Record eXchange (HRX)[56], which supports e-referral capability.

  > *"The Health Record eXchange (HRX) is GPpartners' shared electronic health summary and document exchange system that is currently used by GPs, hospitals and other health care services to share critical patient information."*

- GPpartners believes that an intelligent work-flow focus is essential for an e-referrals solution, so that alerts, acknowledgements and notifications, etc. can be incorporated to address patient and clinician risk. This can only really be effectively achieved in a repository type of approach, i.e. not via point-to-point messaging.
- GPpartners believes the key barriers to adoption of e-referrals includes:
  - The inability of provider organisations to receive e-referrals.
  - When changes in work practice are required and the benefits are not clear to the practice or the practitioner.
  - Medicare Australia's security requirement for messaging.
  - Lack of unique identifiers for patients and providers.
  - Absence of a model for non-face-to-face consultations.
- GPpartners noted that they worked with Queensland's GPAC (General Practice Advisory Council)[57] in the development of a generic referral template form, which has been incorporated into Medical Director and other GP software systems, and also is used by private hospitals.

[56] See http://www.gppartners.com.au/content/Document/infosheet_hrx.pdf (Accessed 14 May 2009)

[57] See http://www.gpac.net.au/ (Accessed 22 May 2009)

2.3.6 Dr Jon Douglas

Dr Douglas is a general physician in both private and public practice. There were a number of important themes that emerged in discussions with Dr Douglas:

- His practice is paper based, and he does not see that he is likely to change in the time he has left in practice. This is likely to hold true for many of his peers, and will present a barrier to higher levels of adoption amongst especially specialists and consultant physicians.
- He felt that the overall quality of referrals was better from GPs than from many of his specialist colleagues. He did note though that if the referral was for a hospital inpatient that reference was often made to notes contained in the patient's chart. This usually contained most of the information he needed.
- He contended that the best referrals he has ever received were hand written, and wondered about the value of a process where the referral letter was constructed outside of the consultation and with adequate time for reflection on the clinical purpose of the referral.
- The use of computer created templates by some GPs has worsened the quality of the referrals by allowing them "to dump all investigations" into the letter, instead of extracting the relevant ones. The insertion of unedited consultation notes rarely made for clear communication as to the real need for the consultation. There is research to support this contention: a UK study[58] compared the demographic and clinical content of referral letters to a dermatology outpatients department. They found that demographic information was better in electronic referrals and that clinical information, and its "clinical relevance score" were superior in paper referrals. The authors' contention was that part of the effect was due to GPs being asked to enter data into a computerised system, and that this acted as a barrier to quality referrals.
- In summary his experience would support the notion that the need for thought about the reason(s) for the referral was more likely to be lost in a hastily constructed amalgam of clinical notes and investigations than if a shorter handwritten referral was provided. He observed that he can always ask his receptionist to ring the pathology laboratories or radiology services to get results of any **relevant** tests. This is a very typical occurrence.
- Acknowledgement was given to the benefits to computerised practices that had up to date information stored on their patients.

[58] Shaw LJ, de Berker DAR (2007) Strengths and weaknesses of electronic referral: comparison of data content and clinical value of electronic and paper referrals in dermatology *British Journal of General Practice*, **57**, 223-224.

2.3.7 Ramsay Health Care

Established in Australia more than four decades ago, Ramsay Health Care[59] is now the largest operator of private hospitals in the country. With over 65 hospitals and day surgery units, Ramsay Health Care Australia admits over 750,000 patients and conducts over 450,000 procedures per annum. It is now a global hospital group operating over 100 hospitals and day surgery facilities across Australia, the United Kingdom and Indonesia. The company is also recognised as a leader in teaching and research with an emphasis in its hospitals on both undergraduate and postgraduate training of the future medical and nursing workforce.

The CEO of Ramsay's Noosa Hospital[60] (in Queensland) was interviewed for this project and input was received from the company's Marketing & Public Affairs Manager. Whilst relatively small, this hospital and the others in the Ramsay group, have experiences and requirements related to referrals that are common to all Australian private hospitals.

Over the past decade Ramsay Health Care has acquired several major hospital groups including Alpha, Benchmark and Affinity. In acquiring these groups the company inherited patient management systems such that by 2005 they had several different patient management systems across the company. This became unwieldy both in terms of centralised management of information but also in terms of maintenance, upgrades, etc. Ramsay Health Care consider that patient management systems are the means by which hospitals collect all of their information and are therefore a most important source of information on hospital operations.

A decision was made in 2007 to move the company to a single patient management system and Meditech was chosen. The company is currently upgrading all hospitals to the Meditech system and this will be completed in 2010.

In the meantime, a data warehouse was built by which the company could extract information from all their patient management systems. This data warehouse is used to extract statistical information on a hospital-by-hospital basis in relation to the hospital's operations and allows Ramsay Health Care to track their operations including admissions and bed days by specialist. This system has become a key source of information for their hospital managers and senior executive.

The relationship between private practicing specialists (and GPs with admitting rights) and private hospitals is crucial, i.e. these doctors are not employed by the hospitals. Apart from those with emergency departments, the flow of patients to private hospitals depends almost entirely on the treating private practicing doctors sending patients to their facilities. Hence private hospitals seek to obtain and maintain competitive advantage through collaborative relationships with doctors, which include involving their practice as closely as possible with the hospitals.

A key additional dynamic in this area is the relationship between GPs and specialists, as it is usually the case that a GP will refer their patient to a specialist, who then in turn treats the patient in a hospital. Hence private hospitals also have an interest in ensuring that GPs are aware of which specialists use their facilities. Ramsay, like other private

[59] See http://www.ramsayhealth.com.au/ (Accessed 13 May 2009)

[60] See http://www.noosahospital.com.au/ (Accessed 13 May 2009)

operators, assist to market their specialists to GPs, but their relationship with GPs is not as direct as that with the specialists. Through the data warehouse discussed above, Ramsay has good statistical data regarding specialist referrals. Ramsay does collect contact information of their patients' GP in the hospitals' patient management systems, but they feel this may not necessarily be accurate in terms of the recorded GP being the one that referred the patient to the admitting specialist.

Sometimes patients will indicate to their GP a preference for a particular hospital or specialist. In addition, private health insurers will sometimes advise their members of preferred hospitals on the basis of the contracts between the insurer and the private hospital, and the provisions in the member's health insurance policy. Hence there are many stakeholders, relationships and interests at play that combine to determine the referral flow to a private hospital.

Through analysis of their central data warehouse, Ramsay is able to identify their top referrers and also measure the growth of specialists' activity over time and thereby tailor their marketing needs to assist those specialists.

Ramsay is also looking at online admissions for both patients and referring specialists. They see that this will improve accuracy of data and reduce risk, and also hopefully reduce data input time if data is received electronically and entered straight into the patient management system.

2.3.8 Dr Beres Wenck and Dr Sara Bird

Dr Wenck is a practicing GP, Chair of the National Standing Committee of the RACGP for GP Advocacy and Support, and Vice-President of the MDA National Council. Dr Bird is National Medico-legal Claims Manager for MDA National Insurance[61]. These experts were consulted in relation to medico-legal, risk and medical indemnity aspects.

Both Dr Wenck and Dr Bird emphasised the primacy of good clinical content in referrals. Their knowledge was sought to provide examples of any legal proceedings that illustrated medico-legal risks associated with referrals. They provided two cases that illustrate the importance of adequate and timely follow up of important referrals. The first involves a missed medical appointment, and the second missed admissions for surgical procedures, and sadly both involved the death of the patient concerned.

1. Young v Central Australian Aboriginal Congress Inc & Ors [2008][62]

> This case was heard in the Northern Territory Supreme court and found that the clinic had failed to follow up the patient's referral to a specialist physician for assessment of suspected ischaemic heart disease. There were a number of contributing factors (including a cancelled clinic with two patients with the same name) but the clinic was found to have failed in their clinical and administration duties by not keeping adequate records, and having a system whereby the patient would be contacted if a letter was not received from the specialist.

[61] See http://www.mdanational.com.au/ (Accessed 23 May 2009)

[62] See http://www.supremecourt.nt.gov.au/old_site/doc/judgements/2008/ntsc/pdf/NTSC47%20Young%20v%20CAACI%20&%20Ors%20[2008]%2019Nov.pdf (Accessed 13 May 2009)

2. Tai v Hatzistavrou [1999] NSWCA 306[63]

> The central finding from this case is that the courts expect medical practices to possess follow-up systems for important referrals. A gynaecologist referred a patient for admission to hospital for an elective surgical procedure to test for a potentially cancerous condition. The patient was simply given a form to take to the hospital, but the gynaecologist did not make a record of this at his practice. When the patient did represent sometime later she was found to have widespread (metastatic) cancer. A relatively simple system for tracking important clinical activities would have almost certainly averted this situation.

In both situations electronic referrals would have greatly lessened the likelihood that tragic events such as these would have occurred by ensuring that when a referral was sent, an acknowledgement would be received by the referring doctor, or if none was to be forth coming, then a practice based system would guarantee follow up would occur in a timely fashion.

2.3.9 Allied Health Professions Association

Referrals from general practice to allied health professionals (AHPs) are primarily to physiotherapists and psychologists. Both of these professions have been included in the scope of this report based upon their volumes of referrals. In addition, dentists and optometrists have been included because both are key examples of primary care professions where they are usually the first point of encounter with a patient.

The Allied Health Professions Association (AHPA) [64] has also been consulted to provide both an overview position and also to represent the other AHPs that were not consulted directly.

The AHPA has a secretariat run in the offices of the Australian Psychological Society (APS). Based upon preliminary discussions with the AHPA it would appear that the experiences of the Australian Physiotherapy Association (APA) and the APS are likely to be typical of the other professions.

The current membership of AHPA includes the following professions:

- Audiologists.
- Dieticians.
- Exercise physiologists.
- Occupational Therapists.
- Orthoptists.
- Orthotists and prosthetists.
- Pharmacists.

[63] Tai v Hatzistavrou [1999] NSWCA 306 http://www.lawlink.nsw.gov.au/scjudgments/1999nswca.nsf/0000000000000000000000000000000/e9f4cfe83e54a1c4ca2567d700046654?opendocument (Accessed 13 May 2009)

[64] See http://www.ahpa.com.au/ (Accessed 21 May 2009)

- Podiatrists.
- Psychologists.
- Radiographers.
- Radiation therapists and sonographers.
- Social Workers.
- Speech Pathologists.

2.3.10 Australian Physiotherapy Association

There are 4,474 private physiotherapy practices[65] in Australia that employ 12,613 people (mainly physiotherapists). The APA[66] estimates there are over 15 million occasions of service per annum[67]. Based upon the average number of treatments per initial consultations there are approximately 1 to 3 million initial consultations per year.

There are four main categories of patients in physiotherapy private practice,namely:

- *Private patients* (about 63% of all patients). These include patients with or without private health insurance. These patients do not require a referral from a medical practitioner and either pay their own costs or claim from their private health insurers. Nonetheless almost one third of all private patients still present with a referral from their medical practitioner.
- *Medicare patients, Department of Veterans Affairs (DVA)* [68] *and compensable patients* (about 37% of all patients) need a referral from a GP.
    - Medicare patients have a care plan completed by a general practitioner under the Enhanced Primary Care (EPC) program. They are provided with a referral to a physiotherapist or other allied health professional, and can access five services per annum.
    - DVA patients must obtain a D904 form (or its equivalent) from their general practitioner, which enables the physiotherapist to charge the service to DVA. This form need not contain detailed clinical information and hence may not be seen to be a referral in the context of this report.
    - Compensable patients include patients with a claim from the Workcover authority in their state or territory[69], and the various state based motor vehicle accident schemes.

[65] IBIS World Industry Report 2008

[66] See http://www.physiotherapy.asn.au/ (Accessed 21 May 2009)

[67] Based upon an extrapolation of PHIAC report A and the 2008 Physiotherapy Business Australia Benchmarking survey.

[68] See Appendix C for information related to services funded by DVA

[69] This figure should be viewed with caution as some states' Workcover authorities do not require referrals from medical practitioner. However all authorities require certification of injury by a medical practitioner prior to the commencement of physiotherapy treatment.

Based upon the above, approximately half of all initial consultations (1 to 1.5 million initial consults) would typically expect a report to be provided back to the referring doctor.

The APA has a commercial arrangement with Health Communications Network (HCN), the company who provides Medical Director software to medical practices. The APA provides listings of eligible members for the Find a Physio function that GPs use to refer patients to physiotherapists. This arrangement is currently only in place with HCN.

The APA has sought to encourage the accreditation of practices as a means of driving high quality practice in private settings. They contract QIP to run the assessment and accreditation process.

The structure of referral letters is template driven with most of the compensable organisations each having different referral formats.

ICT in Physiotherapy

The software suppliers involved in private physiotherapy practices are dominated by three suppliers namely:

- TM2 (estimated to have 25% of all practices).
- PPMP (15%).
- Frontdesk (20%).

The vast majority of the remaining 40% of practices have a practice management system of some sort, and almost all practices have use of at least one computer in their practice. This is mostly limited to billing and scheduling, however research undertaken by the APA indicates that most physiotherapists are open to converting paper records to electronic clinical records if their was financial support to do so.

2.3.11 Australian Psychological Society

The APS[70] has over 17,500 members with over 6,500[71] being in independent practice.

A significant development in the area of psychology is the implementation of the "Better Access to Mental Health Care" initiative that has introduced Medicare rebates for psychological treatment. A key aspect of this initiative is the capacity for a GP to refer a patient to a Psychologist for 6+6 group sessions and 6+6 individual sessions[72]. Under certain circumstances a further 6 sessions (i.e. a total of 18) can be authorised.

The referral letter is expected to include the patient's Mental Health Care Plan, additional relevant information and any specific data requirements of the funding program being accessed for the patient.

[70] See http://www.psychology.org.au/ (Accessed 21 May 2009)

[71] APS Annual Report 2008

[72] See Appendix B.7 for a sample referral template for this type of service, and Appendix B.8 for a sample template for the letter to be sent back to the referring doctor from the psychologist

The other major change in the external environment is the impending registration and accreditation scheme which is to be implemented in mid 2010[73]. In addition, the APS has been involved in consultations regarding EHRs.

Psychology and Referrals

There are five main sources of funding for Psychology Services namely:

- Better Access to Mental Health Care (which is a significant portion of the work share) with 660,000 GP Mental Care plans being prepared per annum and resulting in around 2.5 million treatment sessions by psychologists. All of these have a referral.
- Enhanced Primary Care (EPC) which is for Chronic Disease patients on the basis of a collaborative Team Care Arrangement referral from a GP.
- Better Outcomes in Mental Health Care /ATAPS which was commenced in 2001/2002 and preceded the Better Access program as a mental health initiative, is still running and managed through the Divisions of General Practice / AGPN. The Better Outcomes program is based upon the Divisions employing or contracting psychologists on a direct payment or voucher system whereby patients can access a subsidy for services.
- Private Health Insurance patients where a GP referral may still required to warrant claiming. There are currently over 44% of all Australians covered by Private Health Insurance nonetheless only about 260,000[74] services (i.e. not referrals) are claimed through private health insurance.
- Out of pocket services.
- The other sources are DVA and third party compensable services, which, when combined, make up for more than PHI as a most used source of funding.

The Logistics of Referrals is very GP Division based. There is a perception that many divisions produce their own templates for the referral. The APS is very supportive of working to achieve a national referral form for Psychology services although their view is that the GP Profession needs to be on side to increase the likelihood of take up. A key component of many referrals is the preparation of a Mental Health Care Plan. A sample plan is available from the DoHA web site[75]. Very few GPs computer generate (e.g. through the use of MS Word templates) the Mental Health Care Plans.

Level of Computerisation – The level of maturity of practice based computer systems largely unknown but is believed to be low – perhaps 30-40%. However 90% of the APS membership have access to and use email. A key revelation is that many receive referrals and send reports by email although there is a concern with the confidentiality of the messaging and the level of security in the messages.

The Logistics of Reporting – The APS produces a Medicare Manual to support the standard reports that should be used in returning feedback to GPs and other referrers. The APS expects to increase the rigor on the use of these standard reports when Practice Accreditation becomes a requirement.

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[73] APS Annual Report page 10 – Executive directors report

[74] PHIAC Industry Statistics Report A Part 9 (using an extrapolation of the December 2008 figures)

[75] See http://www.health.gov.au/internet/main/publishing.nsf/Content/health-pcd-gp-mental-health-care-medicare (Accessed 20 May 2009)

Private / Public – Half of the APS membership is in private practice either in main or second jobs. There are many members who are employed in the private and public sectors (also about half) often in non-health settings (e.g. schools, industry, prisons, NGOs) and many in health facilities.

Other Opportunities – In the health sector, the APS have supported a model of collaboration within a "Mental Health Network". This entity is not always aligned with the geography / size of a Division of GPs as it is often smaller than the Divisions. This is especially the case in the capital cities where several Networks could exist within a single division. There is an opportunity to assist in providing communication at this level through identification of service providers and providing simple communication.

2.3.12 Australian Dental Association

The ADA[76] represents 90% of all registered dentists and has a membership of approximately 10,000. There are a number of larger practices and some corporatisation of dentistry but the vast majority of dentists are in solo or small practice.

The major initiative that is impacting the ADA is the move to national accreditation and registration linked to the Australian Commission on Safety and Quality in Health Care (ACSQHC). The ADA is working to create an appropriate set of standards for approval and adoption in the referral process.

Dentistry and Referrals

Medicare Australia billing is only applicable to dental patients with Chronic Disease plans or aged care residents with care plans in place. DoHA has a standard referral form for Dental Services[77] that is signed by the referring GP. This EPC program provides up to $4,250 in dental services over two consecutive years.

Non-EPC patients will usually self refer and there is no requirement for a referral to a general dentist to facilitate private insurance billings.

General dentists can refer to specialists (e.g. orthodontists) although this is not commonly done as a formal process.

Dentistry and ICT

The ADA believes that the level of computerisation is only about 60-65% with many only using the functionality for appointments and billing. The key IT solution providers are:

- Oasis (from SOE) with 1,200 practices in Australia.
- Dental4Windows with 1,400 practices in A/NZ.
- Exact (from SOE) with 1,700 practices in A/NZ.

The company that owns both Oasis and Exact is Software of Excellence (SOE) from the UK. Their representative supports the 60-65% computerisation estimate of the ADA. She felt that probably one third of the 60-65% would be using email for message transmission. The security for the email transmission is provided within their software but is not aligned with NEHTA guidelines.

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[76] See http://www.ada.org.au/ (Accessed 21 May 2009)

[77] See Appendix B.6

Both products use templates (or report generators) for the production of reports back to referrers and referrals to specialists. They also have facilities to track the sending of referrals.

2.3.13 Optometrists Association Australia

Optometrists provide around 75% of all primary eye health care in Australia[78]. Optometrists have been part of Medicare since 1975, can provide referrals directly to ophthalmologists and are able in all states and territories to prescribe medicines for common eye complaints, many of which are listed on the Pharmaceutical Benefits Schedule.

Optometrists are therefore usually a patient's first point of call for eye conditions, and as a result, the Optometrists Association Australia (OAA)[79] considers their members are primary care providers rather than AHPs.

There are approximately 3,000 optometrists providing about 5.7 million optometry services per annum (in 2007-08) in Australia, with 97% of these services bulk billed to Medicare.

Optometrists work in a variety of practice settings including independent private practice; public settings (public eye clinics) and larger corporate or franchisee optometry chains. Statistics collected by ODMA suggest there are 2463 outlets providing retail prescription eyewear, most of which include optometrists. 43% are from small chains and single operators; 21% from the Luxottica retail company; 16% from Provision and 4% from Specsavers. The latter group is likely to grow given public statements by the company.

E-A key driver is that the referrals from GPs to optometrists are usually informal (given optometrists do not require formal referrals as they are directly part of Medicare). As a consequence there is a potential 'missing link' back to the GP if the patient receives treatment or is referred to an ophthalmologist. Optometrists are however encouraged to provide formal information to GPs through a variety of publications published by the Association including optometric competency standards including therapeutic competency standards developed by the OAA.[80]

In addition, the absence of a more formal referral can result in a lack of context for the optometrist when providing care, although optometrists are fully trained and do take full medicines history from all patients before treating a patient and prescribing medications.[81]

There are about 3 million patients a year with about 6% resulting in referrals – 3% are formal referrals to ophthalmologists and the other 3% are less formal referrals to GPs or other care providers (e.g. low vision clinics). In the case of the GP referrals this is often associated with the early detection of potential diseases such as diabetes and multiple

[78] Australian Institute of Health and Welfare, Eye health overview, http://www.aihw.gov.au/eyehealth/overview.cfm

[79] See http://www.optometrists.asn.au/ (Accessed 21 May 2009)

[80] Kiely, P; Chakman, J; & Horton, P. Optometric therapeutic competency standards 2000, Clin Exp Optom, 83.6 November – December 2000

[81] Competency Standards and in particular, Therapeutic competency standards 2000, principles 5.5.1and 2.3, 2,4

sclerosis. There is a concern that the absence of follow up on these referrals could have potential medico-legal implications.

OAA would be supportive of involvement in activities that progress the automation of referrals and initiatives which assist the efficient interaction between health professionals who treat people with eye conditions.

The initiatives in this space have been limited to campaigns funded by interested organisations such as diabetes councils encouraging GPs to refer more patients as well as OAA encouraging GPs to refer more children to optometrists.

The feedback from the software providers is that there is low demand for electronic transmission and receipt of referrals and reports. However they consider there would not be resistance to such an initiative. There is likely to be an increasing need to provide more efficient solutions for optometrists to interact with other health professionals such as GPs and ophthalmologists given the introduction of shared care plans for co managing glaucoma patients and the increasing emphasis of multi disciplinary care of patients with complex health conditions such as diabetes.

Optometry and ICT

The level of computerisation is very high in optometry practices – well over 90% in part because of the technical training received by optometrists. Moving to paperless practices is common place.

The supply of ICT solutions (to the independent practices) is dominated by two providers namely Sunix and Monkey Software. Each has about 1,000 practices. Both are practice management systems and the perception is that the electronic transmission of referrals is made too difficult by the requirements for encryption etc. Neither system does the encryption and transmission of referrals but Monkey Software directs their clients to the 3rd party messaging providers (e.g. HealthLink, Argus, Medical Objects, etc., which encrypt information), as their Optomate system supports a direct link from its' internal letter facility to Microsoft Word, which in turn supports HL7 integration objects from these messaging providers. OPSM and Spec Savers have their own proprietary systems (i.e. neither Sunix nor Optomate).

2.3.14 Department of Veterans Affairs

Local Medical Officers (LMOs) can refer eligible veterans or war widows to wide range of medical services[82]. This is usually done via a form called a D904. This form would be separate to the referral letter if one was completed. Some services (e.g. social workers, osteopaths) may require prior financial approval. Overall the process is practically identical to other systems save for the relatively minor administrative requirements peculiar to the DVA.

[82] See Appendix C for further details.

2.3.15 Aged and Community Services Australia

Aged and Community Services Australia (ACSA)[83] is the national peak body for over 1,100 church and not-for-profit organisations that provide accommodation and care services to over 700,000 people. A key metric provided by the ACSA is that their members provide accommodation via 100,000 beds.

They are the national organisation for the Aged and Community Services associations of each of the states and territories.

ACSA's CEO, Mr Greg Mundy, provided much of the key information in section 2.5 below.

2.3.16 Aged Care Association Australia

ACAA[84] is the national body that had its origin around for-profit aged care facilities and hence complementes ACSA, which focused on not-or-profit organisations.

The ACAA represents over 1,000 residential care organisations with 80,000 beds. It also covers 8,000 community aged care places.

ACAA considers that the most appropriate approach to the introduction of e-referrals may be to leverage the e-prescribing and medication administration functionality of aged care facilities and General Practitioners as per trials in the Northern Territory.

Referrals for RACF[85] and CACP[85] clients for services such as dentistry, radiology, pathology, allied health, etc. are a "huge problem" relating to transport and scheduling of services. In the case where family or carers are not available the scheduling of transport and the services can be difficult and potentially a big burden on the system.

A specific problem raised by the ACAA relates to referrals to geriatricians who are notoriously difficult to access. They are supportive of the Choose and Book approach as used in England to facilitate the scheduling of these difficult referrals.

They identified that there is working going on to get a common assessment tool for both HACC[85] services and CACP services.

2.3.17 Workers Compensation, Traffic/Motor Vehicle Accident

Each State and Territory has its own regulations and required forms (e.g. WorkCover NSW, Q-Comp, Queensland) to provide health care in the event of a work related injury or disease. This was validated with an Occupational Physician, Dr Anthony Arklay, and a review of selected workers compensation websites.

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[83] See http://www.agedcare.org.au/ (Accessed 22 May 2009)

[84] See http://www.agedcareassociation.com.au/ (Accessed 22 May 2009)

[85] Residential Aged Care Facility (RACF); Community Aged Care Package (CACP); Home and Community Care (HACC) – see section 2.5 for details

Again, each State and Territory has its own regulations and associated forms (e.g. Motor Accidents Authority of NSW, Traffic Accident Commission of Victoria) to provide health care to consumers following motor vehicle accidents. This was validated by a search of the relevant state authorities' websites.

2.4 State and Territory Health Departments

Consultation with the State and Territory Health Departments for this project utilised a survey (please see Appendix H for the list of questions). All jurisdictions completed the survey. The following is a summary of the responses based on the key themes.

2.4.1 Legislative, Funding and Medico-legal Aspects

Referrals in the Health Departments of all States and Territories operate within a framework of legislation and policies – both national and jurisdictional.

In the broader context relating to privacy and confidentiality, the National Privacy Principles provide specific guidance relating to the protection of personal information and its accuracy. Where necessary, States and Territories have introduced their own privacy legislation, e.g. Information Privacy Act 2000 (Victoria). In addition, in many cases, health specific legislation includes requirements for privacy, confidentiality and security of personal information, e.g. s62A of Queensland's Health Services Act 1991, and Victoria's Health Records Act 2001. These Acts impact information content and processes for referrals.

In NSW, the Health Records and Information Privacy Act 2002 guides the use and sharing of NSW Health information. Of interest is that this Act has been used and tested through the implementation of an EHR.

Funding for services provided by State and Territory Health Departments resulting from referrals from other parties at the present time is determined by a range of instruments, including:

- The respective Australian Health Care Agreement.
- Health Insurance Act 1973 (as amended).
- Medicare Benefits Schedule, specifically G.6.1 – Referral of Patients to Specialists or Consultant Physicians.
- National Minimum Datasets, e.g. HACC.

The application of these differs slightly from jurisdiction to jurisdiction.

Of interest, as a taste of desired reform in this area, is the following from the Victorian Government Report *Next Steps in Australian Health Reform*:

> *"… a commitment to further consideration of significant reform to health financing, in the context of a new national health care agreement, including:*
>
> - *"more consistent funding arrangements across preventative health, primary, emergency departments, acute and aged care, which reduce distortions and create incentives for the efficient allocation of resources;*
> - *"in the longer term, regional funding models which would see each State or Territory providing for area based decision-making on service 'purchasing' and investment priorities across preventative, primary*

and acute care, and interim regional approaches which may support a transition to this model."

The funding source for referrals typically drives many other aspects – especially relating to documentation requirements. In addition, for example, for Medicare Australia funded services, requirements for use of specific security facilities, e.g. HESA keys, exist for electronic exchange of information.

The jurisdictions share a common concern of the medico-legal implications of referrals and a growing appreciation of the impact of e-health on these. Of significance is that jurisdictions reported general issues with the routing of referrals to the correct service within their organisations. To address this many are centralising referral receiving and also improving their services directories so that routing can be more accurate and efficient.

2.4.2 Methods Used to Create, Send and Receive Referrals

Jurisdictions reported a mixture of methods used to create and send referrals, with hand-written forms appearing to be dominant and fax being the preferred means of transmission. As a consequence jurisdictions were unable to provide accurate data or estimates on quantities. A number of jurisdictions have the ability to create and complete referral forms on computers that are then printed and typically faxed, but also posted. GP software, e.g. Medical Director, is usually used for this. In some cases, the forms are scanned and emailed. In addition, it is not unusual that the patient is provided with the document to take to the referred-to clinician.

QH, in a minority of situations, uses the online referral service of Medical Objects, which offers a fully electronic system for the creation, sending and then receiving of referrals. Recipients of the electronic referrals need to also be users of Medical Objects. NSW has initiatives in some Area Health Services to trial secure electronic messaging in the 2009 calendar year. Victoria' has an established program of work to deliver continuous improvement in the coordination of services supported by statewide enablers and standard tools including electronic referral. This program of work engages a broad range of health and human services organisations at the local level through Primary Care Partnerships and is supported by standard practice, standard information, and technical infrastructure.

Inbound referrals to services provided by State and Territory Health Departments are predominantly manual and paper-based, received by fax or post. Exceptions include NT, where most of their outpatient departments have moved to receiving referrals via their Secure Electronic Messaging Service (SEMS), with use of this service increasing also in their Emergency Departments. NT's hospital information system called CareSys also receives electronic referrals from external GPs. An additional exception is Victoria where standard information in a standard format is being used for incoming electronic referrals (using the Service Coordination Tool Templates and VSRF standards). This is generated by agency client management software applications and distributed using secure e-referral (distributor) systems. The HL7 specifications have been developed and released for the recently updated (2009) version of the tools and are now being progressively implemented by software vendors. The HL7 testing environment has been established to support the software vendors to test their implementation.

Queensland's Gold Coast Hospital is receiving some electronic referrals via a GP Portal it has established. These are accessed and printed by the hospital and then manually entered into their Referrals Process workflow. This is consistent with the general

approach in QH where facilities tend to manage their own referrals, waiting lists and schedules.

In some cases, jurisdictions are very explicit about the structure, document form and content requirements for incoming referrals, and in others, e.g. WA, templates and guidelines for acceptable content are provided to referrers (please see Appendix G for WA Health's requirements for Outpatient and Elective Services Referral[86]. The WA approach usefully defines the standard core data required for all referrals and then outlines requirements for additional data required for referrals to a range of specific services, e.g. Gastroenterology, Geriatric Medicine, Haematology, etc.

This approach offers flexibility to the referrer and lends itself to a design that is more centred on information content requirements and less on form layout and design, which is a helpful approach in considering e-health solutions.

In addition, the Victorian Statewide Referral Form (VSRF[87]) was developed some years ago as a means of standardising incoming referrals for the DHS (please see Appendix B.3 for the GP version). DHS has worked closely with software vendors and electronic templates of the VSRF are available for all major GP software products[88]. The VSRF is currently used extensively in Victoria and is continuously improved as part of a ongoing three-year cyclical process. This process factors in sector input, emerging reform strategies that support quality referrals from general practice, developments in national standards and harmonisation with the Service Coordination Tool Templates.

Also in Victoria, the Primary Care Partnership (PCP) strategy has developed the Service Coordination Tool Template (SCTT), which has been increasingly integrated into health systems to improve the coordination of care between service providers. The SCTT templates enable service delivery agencies to record and share client information in a consistent way, undertake initial needs identification, make referrals and document client consent to share information between providers.

The SCTT and the VSRF have replaced over 350 tools and are used electronically by over 450 services across Victoria – representing a range of settings including local government, housing and homelessness, acute, sub acute, and out patients, allied health, drug and alcohol, community health, GP, child and family, education, and mental health. There have been three major versions of the tools. The first version was released in 2001, the second in 2006, and the third and current iteration, the SCTT 2009, in 2009.

DHS is quite advanced in this area of health service coordination[89] and has a number of related e-health developments underway within an architected approach that aligns with NEHTA's specifications and directions.[90]

NSW Health has developed a policy and standard for the creation and transmission of electronic discharge referrals – Medical Discharge Referral Reporting Standard (MDRRS). This importantly guides future work in this area and will ensure alignment between at State and National initiatives.

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[86] Sourced from http://www.gp.health.wa.gov.au/CPAC/referral/contentrequired.cfm (accessed 12 May 2009)

[87] See http://www.health.vic.gov.au/pcps/coordination/vsrf.htm (accessed 12 May 2009)

[88] See http://www.gpv.org.au/content.asp?cid=11,137&VSRF (accessed 12 May 2009)

[89] See http://www.health.vic.gov.au/pcps/coordination/index.htm (accessed 12 May 2009)

[90] See http://www.health.vic.gov.au/pcps/coordination/info_management.htm (accessed 12 May 2009)

2.4.3 Referral Quantities and Related Statistics

Accurate data on referral activity and the potential demand for e-referrals is difficult to obtain from the State and Territory Health Departments. This is principally due to the predominant use of hard-copy and the low use of computers in the various processes generally across the vast number of health service delivery settings in all jurisdictions.

Victoria reports that there is a reliance on anecdotal information to support and supplement the limited available hard data. However, it has experienced dramatic increases in SCTT-based e-referrals using their secure electronic distributor systems, as illustrated in the diagram below. Note too, that collecting data to measure e-referral activity in Victoria is now a recurrent feature of the annual reporting requirements Victoria's Primary Care Partnerships.

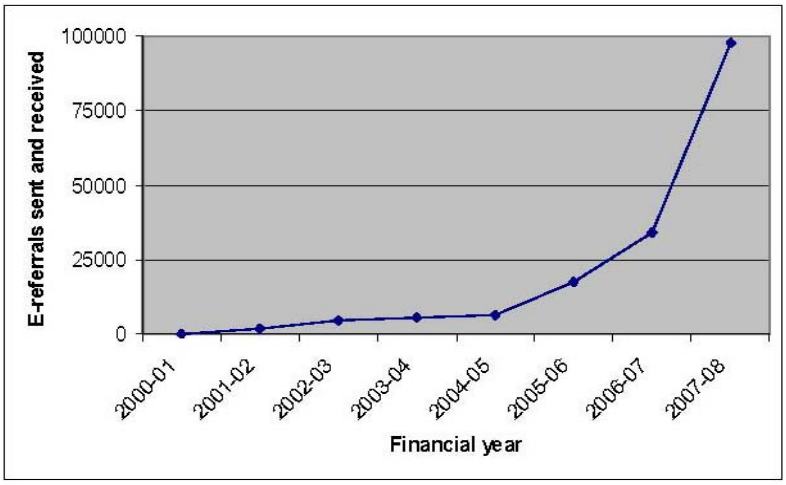

Figure 8: Victorian Trends in SCTT-based e-Referrals

QH reports that the electronic referrals template project that is underway at the Gold Coast Hospital has produced vast improvements in the quality of information provided on referrals. For example, when using the referral template, insufficient demographic data dropped from 10% to 1% and referrals with insufficient clinical data reduced from 7% to 3%. During the trial 42% of referrals utilised the electronic template, of which 58% were received by fax and 35% via secure encrypted messaging.

WA estimates that less than 1% of incoming referrals are electronic and that approximately 15% are by fax with the remainder received in hard-copy.

2.4.4 Policies Related to Referrals

All jurisdictions reported the existence of comprehensive policies relating to referrals. This is not unexpected given the significant health service cost implications of incoming referrals and the budgetary pressures of the State and Territory governments.

WA, for example, as part of their health service transformation program, has published their Specialist Outpatient Services Access Policy[91], which aims to ensure:

- The right patient.
- To the right clinician.

[91] http://www.gp.health.wa.gov.au/CPAC/policy/docs/Specialist_Outpatient_Access_Policy.pdf (Accessed 12 May 2009)

- At the right time.
- In the right place.
- With the right resources.

Royal Darwin Hospital has produced an Outpatient Policy Framework. This includes policies on referrals, including that:

- All patient referrals will be assigned a clinical urgency category within five working days of being registered on a specialist outpatient waiting list.
- Referrals to specialist outpatient services will contain necessary information, and acceptance of referrals will be subject to consideration of service location and patient status.

QH also as a set of policy frameworks that similarly address referrals to specialist outpatients departments and for elective surgery services. It interestingly is in the process of developing implementation standards for all QH employees and agents outlining requirements for management, waiting times, reporting, etc.

In addition, QH's Continuity of Care (CoC) Planning Framework identifies key activities within this process and recommends data sets to support care planning, including data sets for pre-admission referral and discharge planning. The CoC Planning Framework is also supported by the Queensland's GPAC privacy guidelines, developed in consultation with QH's Legislative Policy Unit and the GP sector. These guidelines are for use by QH staff and GPs regarding information collection and exchange, and patient consent.

In terms of strategies and policies related to e-referrals, the *Victorian Health Sector ICT Vision and Framework, 2009-2013* states:

> *"by 2013 Victoria's health service providers should have ready access to the foundation infrastructure and technical services that will allow them to routinely provide electronic discharge summaries and use seamless electronic referrals in the course of provision of patient care"*

In addition, Victoria's *Developing a Primary Health Care Strategy for Victoria – Unpublished Discussion Paper (November 2008),* states:

> *"The next step for e-referral is to broaden and develop the practice supports and tools and to further leverage and support the scaling of existing solutions. This will need to involve:*
>
> - *Further improving the information flows (as the basis for improved service coordination, care planning, and decision making at the points of referral and / or care).*
> - *Supporting an incremental transition to HL7 – electronic message-based e-referral (thus reflecting an understanding of the inherent complexity and fragmentation of the health and human services system itself and, too, reflecting a realism as to noting that where e-health solutions have been successfully implemented in Australia, they have primarily been led at a very local level).*
> - *Abiding by existing standards (SCTT, VSRF) and informing the development of and evolution to national standards."*

Note: See link in footnote below[92] for access to the released public version of this paper.

This understanding that referrals are a part of the care planning process and that supporting clinical decision making in that process is important, aligns with other key advice received in the preparation of this report. That success is more likely with locally led and focussed initiatives has been another consistent theme.

2.4.5 Related Initiatives

A range of policy-driven initiatives and others focussed on the introduction of e-health solutions are both underway and planned in all jurisdictions.

In NSW, the progressive centralisation of referral management inbound for hospitals and community health is occurring organically as a result of some common infrastructure components (e.g. PAS, common Community Health Systems) and will continue through NSW Health Redesign initiatives such as the AHS-based Single Point of Access (SPA) program. In addition some NSW Area Health Services are partnering with divisions of general practice to adopt common secure e-messaging carriers due to lack of interoperability between commercial players, e.g. ARGUS, HealthLink, Medical-Objects, etc.

The introduction of the "Active Life of Referral" program is underway in WA. This stimulates considered decision making in WA hospitals and expedites discharge of patients to the original referrer for ongoing management when tertiary care is no longer required. In addition, WA Operational Directive 0125/08[93] restricts follow-up visits to outpatient services. The intent of this is to minimise over servicing and facilitate definitive outcomes for both patients and referring practitioners. Mandating that only urgent referrals can be made from WA Emergency Departments has markedly reduced demand on clinics and increases the involvement of the patient's primary carer in their management.

In Victoria, the Primary Health Care Strategy paper referenced above stipulates a vision of "a person-centred, integrated, community-based health care system". The paper stipulates e-referral capability as one of the key enablers for this vision. This capability building includes:

- Mapping and reviewing referral patterns and pathways.
- Developing and further embedding service coordination practice (based on SCTT tools).
- Training of agency staff in the use of the e-referral system(s).
- Provision of PKI infrastructure to support secure e-referrals.
- Introducing e-referrals to new sectors and supporting their use.
- Engaging General Practice with e-referral using VSRF.

Victoria's Primary Care Partnerships are expected to be the key constituency driving wider adoption of e-referrals in the context of coordinated primary care.

QH reported comprehensively on a range of initiatives that are underway and planned across the state.

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[92] See http://www.dhs.vic.gov.au/rrhacs/businessunits/primaryhealth/phcinvic (Accessed 14 May 2009)

[93] See http://www.health.wa.gov.au/circularsnew/circular.cfm?Circ_ID=12386 (Accessed 12 May 2009)

Scheduling has been identified as one of QH's priority areas. Work is currently underway to identify both QH requirements for state-wide standardised outpatient appointment scheduling and booking as well as a feasibility study to identify the benefits of implementing such a state-wide application. It is expected that a consistent approach to referrals and scheduling will lead to:

- Reduced waiting times for patients to attend outpatient clinics.
- Better resource management.
- Patients being booked at a clinic that has the earliest available slot.

A trial is underway at five QH hospitals to develop an information webpage available for GPs and patients (Electronic Patient Referral Exchange (EPRX)). This will include the publishing of hospital speciality outpatient wait times, services available, clinic times, and clinical assessments required prior to attending an outpatient appointment. This is expected to reduce the number of inappropriate and incomplete referrals, and in turn reduce waiting times.

QH has established a working party to develop a policy standard for privately referred non-admitted patients to enable Bulk Billing to Medicare Australia of Named Referrals.

The following are short descriptions of other key initiatives underway in Queensland

General Practice Division Partnerships

- Roll-out of the successful Townsville strategy to manage 'aged' referrals (new referrals greater then two years old). Eleven Divisions of General Practice have been funded to implement projects in eleven targeted Queensland public hospitals to review and manage 'aged' referrals during 2009.
- GPpartners have been funded to implement a two-year project at the Royal Children's and Royal Brisbane and Women's Hospitals to develop, implement and evaluate innovative models of outpatient service delivery in order to achieve sustainable reductions in waiting times for targeted specialist outpatient department clinics.
- A number of Key Performance Indicators (KPI) reporting requirements are in place to measure the above compliance.

Map of Medicine Project

This involves the implementation of a web-based, patient flow tool[94] used to improve clinical quality, and patient care and safety, including the management of electronic referrals from GPs and health care agents. Through the Centre for Healthcare Improvement, and discussions with Divisions of General Practice, QH has been progressing implementation of the Map of Medicine for uptake by GPs.

This tool will support more appropriate referrals through the use of evidence based guidelines and care pathways. This should reduce unnecessary visits to specialist outpatient department clinics (e.g. for wound care, removal of stitches).

National Health Reform Agenda and state policy

As part of the national health reform agenda and state policy directions, QH is reviewing its models of care, to support more effective utilisation of the workforce, reduce demand for hospital services, and support improved patient access to community based services,

[94] See http://www.mapofmedicine.com/ (accessed 12 May 2009)

particularly for those patients with chronic and complex conditions. The adoption of "care coordinator" models, collocation models, shared-care models, hospital-in-the-home models, and community-based multidisciplinary team care will impact on referral patterns both within the primary health care sector and between the acute and primary health care sectors.

QH Clinical Policy Unit, Demand Management Strategy

This project will identify a framework where existing services provided will be integrated and coordinated, and a suite of substitution and diversionary services will be recommended so that there is a planned and managed response along the continuum-of-care. For example, it may be more appropriate for a patient to be treated out of a hospital setting. This framework may therefore have implications for referral processes within Districts, the extent of which is unknown at this early stage in the strategy's development.

2.4.6 Guidelines and Standards

Much of the guidelines and standards related to referrals in use in jurisdictions have been discussed in the above sections. Other relevant information provided includes:

- QH have requirements related to data collection and reporting standards that also influence referrals. These include:
  - Elective Surgery National Minimum Data Sets.
  - Outpatient Care National Minimum Data Set.
  - Queensland Health Outpatient Data Collection.
  - Queensland Health Policy Framework for Specialist Outpatient Services (e.g. provides standards for categorisation of outpatients).
  - Referral forms (internal/external) and letters.
  - Application manuals and guides (e.g. HBCIS manuals, facility/district administrative guidelines/procedures).
- WA's Access Policy[95] and Clinical Priority Access Criteria[96] give specific guidance to external service providers referring patients to WA public health services.

Additional research undertaken indicates a relatively high degree of alignment across the State and Territory Health Departments in the area of guidelines and standards relating to referrals.

2.4.7 Trends

Key comments from jurisdictions related to trends in referrals include, in summary:

- Increased demand is expected for outpatient services.
- Increased demand for referrals, including increasing need to be able to match new and previous referrals.

[95] See http://www.gp.health.wa.gov.au/CPAC/policy/index.cfm (accessed 12 May 2009)

[96] See http://www.gp.health.wa.gov.au/CPAC/cpac/index.cfm (accessed 12 May 2009)

- At hospitals that introduce an electronic referral template, it is anticipated that there will be an increase in electronic referrals after implementation.
- In Queensland, if there was a state-wide rollout of EPRX (see above), this could result in changed referral patterns as patients are referred to the correct service location, for example an increase in referrals to a local hospital instead of a tertiary or specialist hospital.
- Greater public/private partnerships may alter referrals patterns.
- Increased use of e-referrals as the key enabler of coordinated care.
- Gradual increase in "cross-domain" referrals (involving health and non-health human services providers).
- At the technical level, gradual increase in take up of "full" e-referrals (supporting the ultimate vision of full application-to-application integration, as the capabilities of end-point applications reach the point where they are able to support this level of integration).
- Increasing use of soft copy document management systems. Increased real time communication between primary and tertiary service providers.
- Patient initiated referral registration and scheduling.
- GP/Referrer appointment booking on-line.
- Expect to be doing bi-directional e-referral via whatever mechanism can be adopted quickly that will satisfy GPs.
- Further modifications to systems to meet changing needs of health providers both at the hospitals and external agencies.
- Access to information on referrals in the Shared Electronic Health Record (SEHR) by other treating practitioners.

In addition, Queensland generously provided the following points related to trends it sees at the national level:

- It is anticipated that with national focus on chronic disease prevention and management, there may be increased referrals to community based lifestyle modification programs and private allied health providers.
- Increased demand to be able to create, store, exchange and receive referrals and referral related documentation via different, largely electronic mediums.
- Expect that providers will be looking to include more information (including images) in referrals, if effective e-health connectivity is achieved, for example, inclusion of more medication, pathology, radiology, patient history, etc.
- Structured referral templates including definitions and structured terminology.

2.4.8 Barriers to Uptake to Standardisation and E-Referrals

Many of the barriers identified by the State and Territory Health Departments are universally of concern across the jurisdictions. This highlights the critical importance of an effective approach to adoption and change management.

The authors are appreciative of QH who provided a very comprehensive response to this topic. This is included below, with related and other items from other jurisdictions incorporated within the framework provided by QH.

Resources

- Resources will be required to understand the current referral state and agree on the goal state for standardised referral business processes. This will require rigorous governance including the definition of standards, structured referral templates and associated terminology.
- Lack of broad and consistent use of standard care pathways (with associated knowledge and evidence resources) in primary care that can assist with decision making in care planning – in particular working out when a referral is appropriate and what constitutes a quality referral.

Information and Communication Technology (ICT)

- Low level of ICT adoption and maturity broadly in the health system will limit effective creation, transmission and receiving of e-referrals and reports. Significant gaps exist in private practicing specialists, allied health, aged and community care and social services providers.
- The eligibility and capacity of different services to undertake implementation of ICT standardisation and provide support to the process. Change management approaches will be required when a state-wide scheduling application is implemented.
- Developing standards based referral process/software solution implementation and software solutions that can accommodate the movement of electronic referrals and reports will require agreement between multiple GP vendor solutions and multiple hospital software solutions.
- Lack of clear and comprehensive definitions of business requirements to ensure systems are fit for purpose to meet business processes and workflows.
- Current lack of interoperability and useability of systems that manage referrals and the capacity of ICT to support e-referrals, including messaging requirements. For example, HBACS[97] has issues around multiple incompatible ICT systems for multiple service providers and agencies.
- Lack of choice in third party messaging agents which support referrals from the GP's Patient Management Systems (PMS).
- Lack of messaging integrated into the PMS.
- Requirement to use individual certificates limits uptake and adds to support complexity.
- Lack of standards in relation to messaging requiring bespoke integration with each different communication channel (for example, a new interface needs to be developed for each messaging agent).
- Lack of intuitive and pre-emptive logic in systems.
- Lack of national patient and provider identifiers, however jurisdictions expect to match on their own identifiers in the interim.
- Lack of operational readiness internal to jurisdictions' health services for necessary business process reform required for e-referral (e.g. consolidating intake points inside and across hospitals).

[97] Queensland Health's Home Based Acute Care Service (HBACS)

- Lack of systems capability to "receive" referrals and incorporate e-referral into system processes (much of what we do will still end up being a copy and paste into our information systems rather than re-engineering and enhancing them to accommodate an e-referral workflow).
- Lead time associated with software vendors' implementation of e-referral standards and interfaces.
- Variable access to reliable Internet access and of appropriate bandwidth.
- Inability to access results, imaging, pathology, etc. Must be copied and attached to referral rather than direct to data repository and linked with unique identifier.

Referral Processes

- Given that referral documentation contains clinical content, a standardised state-wide referral process needs to be developed in consideration of the need to maintain a central clinical record for the patient.
- Capability of systems to support standardised (state-wide) workflow.
- Agreement on centralised versus decentralised approach.
- Inconsistency exists within the current referral processes and management of referral data with service providers often requiring their own referral paper work to be completed. Resistance to use a standardised template exists because each hospital/clinic assumes that they have unique requirements.
- It is important that future referral process still allow for both electronic and paper referrals to be sent and received.
- Lack of integration of a referral with the rest of the referral tools/processes within QH (for example, creating patient records and scheduling).
- Lack of knowledge within QH that electronic referrals are available.
- There is a very wide range of rules/criteria for establishing a referral.
- Referral expiry dates – largely Medicare/funding driven (patients have to go back to their health care provider to get a new referral once it has expired).
- Referrals to public institutions are often generic, i.e. a specific health care provider is not named. This can assist with managing workloads or when the rostered individual is not known at the time of referral or when locums cover a designated role, but causes issues.

Data Standards

- Nationally there are no patient level outpatient data standards or data collection, the current Outpatient Care National Minimum Data Set reports facility level data (count). QH is currently finalising a revised outpatient data collection at the patient level.
- Data collection at each point in the referral process from referral receipt to discharge needs to be consistent, reliable and accurate to ensure that informed decisions can be derived from the data and risk is minimised. This will require clearly defined data collection roles and responsibilities.
- Agreement on key data (structured template) for referrals and associated terminologies.

- Rigorous guidelines are required to minimise rework. For example, where a patient is triaged and reviewed/categorised at Facility A and then scheduled to attend an outpatient clinic at Facility B, the initial review process and clinical data capture must be dependable and at an appropriate level of detail to minimise the need for re-triage and review where applicable.
- For palliative care there is a lack of compliance with any referral standards. Current referral forms do not allow for adequate information and most internal referrals lack complete information and legibility.

Security

- Information security and privacy issues increase as patient information becomes more accessible to more people. For example, information relating to client seen in district A would be accessible to staff in district B, C, etc. Staff and/or clients may be seen outside of the District in which they are employed/reside to retain anonymity.

Whilst not directly a barrier, there was opinion amongst some jurisdictions that NEHTA needs to clarify the scope of the national referrals agenda to enable effective dialogue and focussed development of nationally interoperable e-health capability.

To illustrate a key barrier, NSW reported to the authors that the *"NSW Health HealtheLink pilot has demonstrated that GPs live and die by their practice management systems – in NSW Health we think nothing of logging on to 6-10 different information systems in a working day. GPs are the opposite – they already do all their work in a single system and dislike leaving it. Anything we design in relation to GPs and e-referral needs to be either fully inside the practice management system or so seamlessly integrated with it that from a usage perspective they can't tell the difference – and then you have the headache of doing this across Best Practice, Medical Director, Genie, Medtech, etc."*

2.4.9 Initiatives, Standards and Infrastructure

Fairly consistently and to varying degrees of advancement, all jurisdictions are moving to centralised in-take of referrals – at either a state-wide, health service or facility level. ICT is being used to implement this, including the ability to receive referrals electronically. Queensland reports that *"the principal reason for this is to increase the quality of information leading to shorter time to triage and schedule patients. For example, the Royal Brisbane and Women's Hospital is establishing a centralised referrals centre. Consideration is being given to the possibility of using the available electronic software to support the movement of referrals not only to the facility but also within the facility; across buildings and floors."*

WA similarly reports that expected benefits are reduction in delays due to inadequate content (demographic and clinical) and reduction in duplication. In addition they are trialling a soft copy document management system at Royal Perth Hospital (RPH) and a secure messaging system for communications between primary care sector (specialists and GPs) and tertiary hospitals.

Both ACT and NT are implementing e-referrals solutions that will allow GPs and specialists to refer patients to public hospitals, with NT also specifically including allied health providers in its project. Tasmania's key project focus at the present time is on ensuring its basic systems (PAS and Digital Medical Record) are effective, which will provide the basis for incorporating referrals.

Being fairly advanced in this area already, related ICT initiatives in Victoria include:

- Continuing refinement of SCTT and the VSRF.
- Access Points and use of the ACCNA and CENA (Community Care).
- eACCR and general enhancements to the tools used by ACATs.
- CRIS/CRISSP (ECIS, Youth Justice, Disability Services, etc).
- E-Referral Interconnectivity Project.
- CareDIRECT Project.

It is important to note that the scope of the Victorian initiatives extends to include social services.

Technical standards being used or planned for use across the jurisdictions include:

- HL7 V2.x.
- PKI (X.509).
- Java Messaging System.
- Web Services messaging.

Victoria indicated that their "e-referral architecture project is trending towards an SOA (Service Orientated Architecture) pattern, and supporting standards.

NT reports that "The METeOR[98] and Standards Australia standards for Health Care Client Identification, Health Provider Identification are used where possible." ACT similarly indicates that its e-referral project will implement national e-health standards where available and possible, including HL7 and IHE recommendations.

HL7 is being used in NSW, but they report that a lot of providers are not happy with losing their corporate identities (e.g. logos, letterheads, colours, fonts, etc.) when straight HL7 is used. They suggest that PDF documents wrapped in HL7 may be a compelling "standard" for preserving corporate style.

As a consequence of needs identified early in the ICT journeys of the State and Territory Health Departments, and in the absence of a national approach at the time, communications infrastructure and related services (e.g. provider directories, identification, authentication, etc.) have been developed across the country with little consistency or ability for interoperability. Solutions have been developed explicitly to address particular jurisdictions' needs, incorporating both bespoke and commercially available products and services.

Ensuring content of directory services is up to date and accurate is a significant challenge, and jurisdictions have partnered with GP Divisions and other agencies and service providers to address this. Commercial messaging service providers often incorporate directories in their service, but these usually only include data of providers that use their service.

NSW reports that they spend a lot of time maintaining their own directories and one of the most important aspects of this is maintaining who wants things by fax, via which e-messaging carrier (e.g. Argus, HealthLink, etc.), posted letter, etc. "Despite the hype, we will be stuck in a transition state for a long time and this needs to be accommodated."

Queensland reports that examples of infrastructure currently in use within QH include:

[98] See http://meteor.aihw.gov.au/content/index.phtml/itemId/181162 (accessed 12 May 2009)

- GP/Provider Directory.
- Client Directory.
- Secure Transfer Service.
- Medical Objects (being reviewed).
- Reference files (maintained at various levels (e.g. Corporate and/or facility level)).

External health care providers sending referrals to QH use their messaging agent's technologies, for example software, directory and services (e.g. HealthLink, Medical Objects, Argus, Web Services).

NT reports that it uses Argus for messaging and that its Hospital Information Systems have internal address books that are manually synchronised with the GPNNT Address Book. WA uses the Great Southern Managed Health Network's (GSMHN) specialist directory.

Victoria's Human Services Directory (HSD) is a centralised directory containing information in relation to Victorian providers of human services. The HSD functionality will be further expanded to support its capability to integrate with the overall e-referral solution. Victoria also makes use of its HealthSMART Integration Engine (HSIE) to support these and related requirements.

2.4.10 Key Differences Between Public and Private

Probably the most significant aspect that drives differences relating to referrals in the context of State and Territory Health Departments is how the resultant service is to be funded, and not so much whether the source or destination setting of the referral is public or private.

QH states there are generally three types of referrals received at QH hospitals, which would be similar for all jurisdictions:

- Public – addressed to the hospital/clinic and placed on the waiting list for an appointment.
- Bulk billed – a named referral addressed to an individual doctor and charged to Medicare.
- Private – referred directly to a private clinic within the hospital. These referrals generally include the name of the specific consultant.

ACT Health reports that private referrals require compliance with the requirements of the funder, such as those set by Medicare Australia and Private Health Insurance funds. And that usually there is little difference in the format or content of the referrals.

WA suggests that acuity and volume of referrals would be markedly higher in the public sector, compared with referrals to private hospitals. WA also expects appropriateness of referrals in the public sector to be poorer and to experience higher DNA[99] rates.

In common with other jurisdictions, Victoria highlights the lack of control and leverage the State and Territory governments have over privately funded service providers, particularly GPs and Specialists.

In addition to the information above, Queensland advises that:

[99] Did Not Attend, i.e. when a patient does not make it to an appointment and does not advise of such.

- Many referral letters contain insufficient information and paper-based referral letters are often misplaced or lost.
- There is a need for minimum data requirements and consistent standards between jurisdictions and public and private sectors. This would particularly support patient care when patients require treatment elsewhere.
- QH has a much stricter interpretation of data ownership and security than in the private sector. Queensland doesn't currently provide a patient-centric view.
- Currently QH is not using a single or QH-set of templates. Having too many templates may confuse health care providers and add to problems when rolling out solutions.
- Lack of standards for integrating with messaging agents requiring custom integration is a factor that limits effective interactions.
- In the case where a hospital staff member is referring to the private sector, the referring practitioner will specify in writing the intention to refer privately, naming the referral to a specific doctor.

2.5 Aged and Community Care

The scope of this assignment covers Residential Aged Care Facilities (RACF) and the most common community care service programs. Consequently this includes Home and Community Care (HACC)[100] services as well as those service categories approved for access by Aged Care Assessment Team (ACAT)[101] assessments. ACAT approval and assessment is an essential step in securing access to a Residential Aged Care Facility (RACF) and it is also the 'funnel' for the provision of:

- Community Aged Care Packages (CACPs).
- The Extended Aged Care at Home (EACH) program.
- The EACH Dementia program.
- The Transition Care Program (TCP).

Currently there are 2,806 nursing homes with more than 170,000 beds. There were about 43,000 CACP, EACH, and EACH Dementia packages provided in 2007.

2.5.1 Referrals to ACAT

From a legislative point of view, access to accommodation services is only available following an ACAT assessment. The ACAT is the gatekeeper on behalf of the Commonwealth Government.

Feedback from the DoHA Aged Care eConnect team suggests that the automatic capture of the ACAT lodgement is well advanced and that approximately 50% of the 110 ACAT teams in Australia will be doing automatic capture by September 2009. Their view was that referrals to ACAT teams can come from a variety of sources, including members of the public, local welfare groups, Community groups, GPs and hospitals.

[100] See http://www.health.gov.au/internet/main/publishing.nsf/Content/hacc-index.htm-copy3 (Accessed 20 May 2009)

[101] See http://www.health.gov.au/internet/main/publishing.nsf/Content/ageing-acat-secure.htm (Accessed 20 May 2009)

2.5.2 Referrals to HACC Services

Access to more comprehensive HACC services is typically initiated via a HACC assessment. There are nine projects[102] underway to simplify access and assessment of HACC services.

There are approximately 830,000 HACC clients[103] with the most common services being:

- Assessments 273,000[104]
- Domestic Assistance 250,000
- Home Maintenance 125,000
- Nursing Care (home) 167,000
- Transport 147,000

Referrals of HACC clients are from a wide range of sources including:

- Self-referrals 27.8%
- Hospitals 16.0%
- Family, significant other, friend 15.6%
- GP/Medical Practitioner 11.9%
- Other community based services 9.5%
- ACAT 4.6%
- Community nursing service or health service 4.0%
- Other health or care service 6.9%
- Other 3.9%

For completeness the referrals from the community care settings to other health care providers was discussed with the CEO of ACSA who inferred that it was valuable but often lacking in structure. As an example, a cleaner may detect a decline of an elderly client and may initiate a call to the care provider.

2.5.3 Referrals to and from RACF

A key "referral" is the transfer of a patient between an acute hospital and a RACF. The ACAA[105] estimates the number of RACF admissions at approximately 55,000 per annum. Mr Suri Ramanathan[106] estimated that 60% of patients admitted to RACFs come from the hospital setting.

There are a number of basic referral models in use including the "Orange Folder" as used by the NW Division of GPs in Melbourne for referrals to RACF and the "Yellow

[102] Access Point Demonstration Projects

[103] Report on Government Service 2009 page 13.12

[104] HACC Annual Bulletin 2006-2007 page 31

[105] See Section 2.3.16 of this report

[106] Mr Suri Ramanathan is the Chair of the Aged Care Industry IT Council (ACIITC). See http://www.agedcareassociation.com.au//announcements/display.cfm?id=14 (Accessed 22 May 2009)

Envelope" as used by Brisbane's GPpartners for referrals from RACFs to hospitals and for hospitals back to RACFs.

2.5.4 Initiatives for Consistency Across HACC

Reforms to Community Care are currently underway where seven areas for reforms referred to as "Common Arrangements" are being encouraged through a $30M fund available to the jurisdictions. Although referrals are not identified as one of the seven areas for common arrangements, some of the areas are closely aligned with referrals including common access points, a streamlined assessment process and consistent eligibility criteria.

The current HACC agreement is being renegotiated and is expected to be revised by June 2011. Part of the renegotiation includes the platform for the introduction of the "common arrangements".

2.5.5 HACC and ICT Maturity

The general level of ICT system maturity in the HACC sector is very low and does not support the receipt of referrals or the electronic feedback from the service providers back to the originating referrer.

ACSA[107] consider there are a very small number of organisations that are very mature. These include Silver Chain in Western Australia and the Royal District Nursing Service in Victoria and South Australia.

Part of the "IT Readiness Survey of the Aged Care Sector, 2006" examined the readiness for IT in Clinical Care Delivery. The report indicates that only 2% of service organisations demonstrated the capacity to use IT in clinical care delivery and exchange information with *external* providers (including health care professionals) management of referrals. The report also states that a further 30% are approaching capacity.

Another part of the "IT Readiness Survey of the Aged Care Sector, 2006" examined the management of "referrals" *within* and between the organisations that provide HACC services. These organisations typically managed the internal referrals with the help of resident/client management software.

2.5.6 HACC Software Providers

Mr Suri Ramanathan suggested that the three most common commercial products (two from Canadian companies Procura Healthcare Systems and Campana Systems, and the third called Care Manager from Database Consultants Australia) are not as commonly used as home-grown solutions used by some of the larger service providers.

2.5.7 RACF Software Providers

ACAA considers there are 3-4 providers that cater for 70-80% of the RACF market. Further information from Suri Ramanathan has indicated that the three most common clinical solutions in the RACF settings are: iCare Solutions, Lee Care and Eclipse Computing. The main clinical solutions are reinforced by a number of medication chart providers.

[107] See Section 2.3.15 of this report

2.6 Nurse Practitioners, Practice Nurses and Midwives

A common theme in all these roles is the need as clinical circumstances change, as any other professional would, to refer to other health professionals for assistance in managing a patient's condition.

Currently many general practices employ practice nurses[108] in a variety of roles, e.g. for immunisations, patient recall and reminder, wound dressing, and triage. There are no formal arrangements for inter-practice referrals in this setting that will impact the Medicare system, but for clinical, medico-legal and administrative reasons these would (should) all be recorded on the practice's own systems.

The recent federal budget gives nurse practitioners[109] and eligible midwives[110] access to the MBS for diagnostic testing and to the PBS for prescribing. These changes are designed to have the greatest impact in rural and remote areas, and other areas of need. All the states and territories have roles for nurse practitioners (e.g. Queensland[111] and NSW[112]).

The role of nurse practitioners in the Australian setting is an evolving one, with many rural and remote nurses working across the country (for example QH's Isolated Practice Areas and Rural Hospitals Registered Nurses who are able to administer medications according to Drug Therapy Protocols, and in New South Wales Health a Generalist Remote Areas with similar roles).

It is clear that midwives will need to refer to Obstetricians and GP Obstetricians for procedures such as caesarean sections or for a second opinion on expectant mothers with co-existing medical complications such as gestational diabetes. However it is not clear at this stage how these arrangements will work but with the move to named referrals by all the state's and territories in many situations will result in a Medicare eligible referral.

There are no estimates available as how often this might be occurring, as each state and territory runs their own programmes.

2.7 Key Organisations, Agencies and Individuals Involved in Reform

Organisations and individuals consulted in this category include:

- National Health and Hospitals Reform Commission (NHHRC).
- National Primary Care Strategy.
- Dr John Aloizos.
- ACSQHC.
- Standards Australia.

[108] See http://www.apna.asn.au/ (Accessed 22 May 2009)

[109] See http://www.nursepractitioners.org.au/ (Accessed 22 May 2009)

[110] See http://www.midwives.org.au/ (Accessed 22 May 2009)

[111] See http://www.health.qld.gov.au/ocno/ (Accessed 22 May 2009)

[112] See http://www.health.nsw.gov.au/pubs/2005/nursemw_prac.html (Accessed 22 May 2009)

2.7.1 NHHRC

In addition to providing input in his role as a Commissioner on the NHHRC, Dr Mukesh Haikerwal also provided input in his role within NEHTA. He outlined that the NHHRC has not specifically focused on referrals. Recommendation 120 in the final report does suggest future funding arrangements be dependent upon "... the ability to accept and send key data such as referral and discharge information (Clinical information transfer) in hospitals (dot point 1) and health service providers (dot point3).He considered that this assignment could be used to influence policy directives from NEHTA.

Key items

Dr Haikerwal believes that the starting point for referrals in Australia needs to be on the **quality** of the referral that is generated by the clinician even if that referral is manually produced. The referral needs to be made to the appropriate clinician once the appropriate activities (e.g. ascertain reason for further intervention and prepare the patient with information and pre-requisite "work-up") have been undertaken. It needs to be pertinent and up-to-date with information that is predicated upon the presenting problem.

He supports a coordinated approach to developing a uniform template or set of templates for referrals (see comment from Dr Hobbs below), but not replacing in particular the clinical judgement and the "narrative" providing a uniform format and method.

He identified and supports the current NEHTA initiatives (including identification and authentication services, secure messaging and national clinical terminology). However, he stressed that having initiatives to improve the quality of basic/manual versions of referrals should not be delayed by the current NEHTA initiatives that are more focused on the *electronic* referral.

Dr Haikerwal appreciates that the vast majority of GP referrals are sent to specialists and AHPs (i.e. not to public hospitals). In general, NEHTA has tended to focus on the interactions with the public hospitals to complement the production of discharge summaries from those hospitals. The relevance of NEHTA's referral initiatives may be enhanced if a wider approach is adopted.

Other Research

The NHHRC in its interim report published in December 2008 *A Healthier Future for all Australians*[113], includes as Reform Direction 15.8:

> *"We also propose that a national approach is taken to the synthesis and subsequent dissemination of clinical evidence/research which can be accessed via an electronic portal and adapted locally to expedite the use of evidence, knowledge and guidelines in clinical practice"*

It is noted that the final report of the Commission was released between when the original version of this report was prepared and this updated version. A review of the Commission's final report indicates, as expected, that the intent in this area is still strong.

This Reform Direction, when implemented will support the creation of quality referrals.

[113] See http://www.nhhrc.org.au/internet/nhhrc/publishing.nsf/Content/interim-report-december-2008

2.7.2 National Primary Health Care Strategy External Reference Group

Dr Tony Hobbs[114] has the view that the referral process is a vehicle for demonstrating GP professionalism. Dr Hobbs was interviewed independently of Dr Haikerwal however the theme was very similar.

Key Items

Dr Hobbs believes that the **quality** of the referral needs to be the key focus and used to support the *professionalism* of the GP. This could be achieved by:

- Encouraging "a lot of thinking" as opposed to focusing on the auto pilot completion of a referral template. For the avoidance of doubt Dr Hobbs supports the appropriate use of referral templates.
- Encouraging appropriate tests and procedures to be undertaken prior to sending the referral to the hospital or specialist.
- Encouraging a quality review of the data held for a patient prior to forwarding the relevant information to the specialist/hospital.

He supports the importance of secure messaging, patient and provider identification and the other NEHTA initiatives for the eventual *electronic* communication of the referral.

Dr Hobbs supports the need for the coordination of a referral template. An area that may require investigation is whether it is possible to use to a *single* template to all specialists and a separate *single* template to all AHPs.

In relation to HACC and ACAT referrals, Dr Hobbs again supported the value of coordinating templates/forms specifically in relation to the ACAT referral. His personal experience in relation to the HACC referrals is that he typically does not initiate these directly. In his community most HACC service are initiated when patients are leaving hospitals and the initiation is undertaken as part of discharge planning (albeit with GP involvement).

2.7.3 Dr John Aloizos AM

Dr Aloizos[115], amongst other roles and in addition to being a Clinical Lead for NEHTA and a practicing GP, is chairman of QIP Pty Ltd[116], and a non-executive board member of AGPAL – the dominant organisation that accredits GP practices. QIP also accredits practices of optometrists and physiotherapists, amongst others. Dr Aloizos was interviewed for the project with regards to how quality and accreditation and referrals relate to each other.

Key points from discussions with Dr Aloizos include:

- In concept referrals are like discharge summaries in reverse. Hence many of the requirements for discharge summaries can be applied to referrals, at least in concept.

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[114] Dr Hobbs is the Chairman of the National Primary Health Care Strategy External Reference Group, a practicing GP Obstetrician, and immediate Past Chair of AGPN. Note: the NPHCS ERG is a committee assisting DoHA develop the NPHCS. The views expressed in this section by Dr Hobbs are not necessarily those of DoHA as it relates to the NPHCS.

[115] See http://www.qip.com.au/boardmembers.asp?boardid=2&memberid=12 (Accessed 13 May 2009)

[116] See http://www.qip.com.au (Accessed 13 May 2009)

- A requirement of accreditation is that practices keep all referrals on file. This applies to both incoming and outgoing referrals, and can be electronic.
- A referral is both a legal and business instrument. It helps to coordinate the continuity of care for patients by ensuring key information is shared that supports the provision of quality care. When done effectively, referrals also can improve patient safety by reducing risk.
- The Australian Medical Council (AMC) is developing a national code of professional conduct for medical practitioners – *Good Medical Practice*[117] – in preparation for the introduction of national medical registration from July 2010, which includes information about referrals.
- Medicare Australia has specific regulations for referrals, including for IT. Recent new services that Medicare Australia funds, e.g. relating to care plans and TeamCare (all of which include a referral component), have increased the documentation requirements for doctors.
- The gatekeeper role of GPs is key to effective care for patients, particularly when there is a need for them to access other parts of the health system. Any referrals approach using e-health needs to support this.
- A standardised summary profile of the patient's current condition (sometimes called a front sheet), would be a very useful building block for a quality referral.
- The RACGP has a set of standards[118] against which AGPAL accredits GP practices. A number of these directly relate to referrals, including for example, a requirement for GPs to advise the patient of the cost of the referred service.
- Doctors build up a professional network over time and tend to have a small number of preferred clinicians and services they refer to. Often they are unaware of changes in their local area, e.g. doctors and allied healthcare professionals leaving and new ones arriving, clinics closing and others opening or changing. Most often patients rely on the advice of their GP, but it would be beneficial to the patient for the referrer to provide options. An online directory that is integrated into the clinician's computer system would be ideal, particularly if it also indicated if the referred-to clinicians can accept e-referrals.
- GPs and other clinicians who refer need to have it very clearly described to them what is required to participate in an e-referrals system.
- Broad use of e-referral systems will pickup quickly, as they improve practice and business efficiency and will assist with addressing accreditation requirements. It would involve some changes in practice, e.g. specialists' practices will need to contact a referred patient to organise an appointment, i.e. not wait to be contacted by the patient as is usually the current practice.
- Key barriers to e-referrals take-up include: the current low level of computerisation by private specialists (and allied health) and their inability to receive e-referrals; and the current complexity in getting set up, e.g. PKIs, etc. Dr Aloizos believes it all might sound complex, but it isn't really, from his own experience.

[117] See http://goodmedicalpractice.org.au/ (Accessed 13 May 2009)

[118] See http://www.racgp.org.au/standards (Accessed 13 May 2009)

- An approach to introducing e-referrals could parallel that experienced with prescribing and pathology, i.e. initially using computer-generated paper forms and then over time, as standards and infrastructure develop, transitioning to more sophisticated electronic solutions.

2.7.4 ACSQHC

The Australian Commission on Safety and Quality in Health Care[119] was established by the Australian, State and Territory Governments to develop a national strategic framework and associated work program that will guide efforts in improving safety and quality across the health care system in Australia. The Commission commenced on 1 January 2006. Its role is to:

- Lead and coordinate improvements in safety and quality in health care in Australia by identifying issues and policy directions, and recommending priorities for action;
- Disseminate knowledge and advocate for safety and quality;
- Report publicly on the state of safety and quality including performance against national standards;
- Recommend national data sets for safety and quality, working within current multilateral governmental arrangements for data development, standards, collection and reporting;
- Provide strategic advice to Health Ministers on best practice thinking to drive quality improvement, including implementation strategies; and
- Recommend nationally agreed standards for safety and quality improvement.

The Commission has a range of programs that it is progressing in execution of its role. Relevant to referrals, these include:

- **Accreditation.** The Australian Health Ministers' Conference (April 2008) endorsed the principles of the Commission's Alternative Model of Safety and Quality Accreditation. Ministers also asked the Commission, as part of the health system reform agenda, to progress development of the Australian Health Standards (AHS) and to explore options for their mandatory implementation;
- **Clinical Handover**, which refers to the transfer of professional responsibility and accountability for some or all aspects of care for a patient, or group of patients, to another person or professional group on a temporary or permanent basis. The purpose of this program is to identify, develop and improve clinical handover communication. The program looks at the improvement of handover communication across a range of settings of care – including public and private hospitals and primary and ambulatory care settings; and
- **Information Strategy**, which includes active engagement in the national e-health agenda to optimise safety and quality within clinical systems and national e-health infrastructure development.

Safe health care service delivery for patients depends on effective communication between health care providers. A key element of this is quality of referral, transfer and discharge information, which is considered to be a major current challenge in both

[119] See http://www.safetyandquality.gov.au/ (Accessed 13 May 2009)

current work practice and the computerisation of the health system. Poor care and patient harm can result from actions taken dependent upon poor information for transfer of care. This includes both clinical and administrative data, and extends to inaccurate patient and provider identification – all of which are relevant to referrals.

In addition to improved data quality, the Commission would like to see patient safety improved through the effective use of intelligent work-flow in referrals. This would include alerts for action when events in the referral process do not occur within a specified timeframe, e.g. referral not received, read, reviewed, acted upon, appointment not made, consultation, treatment or report written and sent to the referrer.

The Commission is working with NEHTA to ensure that their respective programs are aligned and supportive of each others' roles and responsibilities. It sees particular value in incorporating e-health principles and national initiatives in its programs.

2.7.5 Standards Australia

Ms Heather Grain is Chair of Standards Australia IT14-2 Health Concept Representation, as well as a member of several other Standards Australia IT14 committees, and an academic health informatician from La Trobe University. Her comments were consistent with the others interviewed. She considered that the value of e-referral was of greater potential in the community than discharge summaries, largely because of the greater volumes and its ability of change care processes at the start of an episode-of-care.

In addition Ms Grain has also worked extensively with health consumers. Her comment about how consumers may view the use of health information was that health organisations should adopt the idea of "we won't move it [health information] if you [the consumer] don't want us to".

This aspect of the potential reuse of health information applies to e-referrals.

2.8 ICT and E-Health Suppliers

Organisations consulted in this category include:

- MSIA.
- Medical Objects.
- Best Practice.
- Argus.
- Genie.
- HCN.
- HealthLink.

The following section covers the dominant ICT solutions providers in general practice, specialist practices and e-health communications. Information relating to IT solutions providers relating to HACC, RACF and AHPs is included in the relevant sections elsewhere in this report.

2.8.1 Medical Software Industry Association (MSIA)

The MSIA has members who are active in offering e-referral solutions and participating in the development of related standards. The MSIA considers that the level of e-referrals use is low but growing. All major GP desktop products have e-referral capability but the

main limiting factor to growth is the low-level of capacity for specialists to receive referrals electronically. Those members of MSIA with e-referral capability in their products have focused mostly on the aspects related to message exchange and/or data transfer, i.e. not so much on other aspects, e.g. workflow, decision-support, etc.

MSIA and Medicare Australia have been working closely recently to resolve an issue whereby private referrals needed to be supported by paper. It was anticipated that the Standards Australia approach of requiring a digital signature would be the endorsed method. However, supported through constructive dialogue with industry, Medicare Australia now no longer requires the use of a PKI certificate and only that the electronic transaction complies with privacy requirements.

Key Items (as at time of consultation and prior to the e-PIP announcement)[120]

Many of the medical desktop systems trialled e-referrals, e.g. trials were held in Brisbane, The Hunter and in Victoria. These trials and the subsequent development of their products have mostly used different interpretations of the Standards Australia HL7 standard to accommodate the different States' requirements. This has resulted in complicated negotiations with desktop suppliers and limits to broad use, particularly in cross-border regions.

For avoidance of doubt, the Australian Standard for eReferral AS4700.6 is based on the international HL7 V2 Standard. There are versions for Versions 2.3.1, 2.4 and 2.5. Standards Australia has also published an implementation Handbook for this standard.

MSIA and NEHTA are working together in many areas of importance to e-Health, including in relation to standards and collaboratively with Standards Australia.

The MSIA believes that the take up of clinical systems by specialists is low but increasing, where the presence of front desk systems for billing and scheduling is much more prevalent.

IHE Australia

The Chairman of MSIA (Dr Vince McCauley at the time) who was interviewed for this report was also the Chairman of IHE Australia.[121]

IHE Australia created an e-referrals task force that consulted widely to align its efforts with international developments, which includes a CDA based Referral Profile. IHE Australia's e-referral profile, which constrains AS4700.6 to minimise optionality, is aligned with these international developments and NEHTA's work and is based on HL7 V2 for data content. The IHE Australian eReferral profile was trialled with 5 vendors at the 2009 IHE Connectathon, and an updated Australian profile is in the process of being submitted for IHE International. In addition the profile and provides information about terminology, work flow and use cases.

2.8.2 Medical Objects

One of Medical Objects key platforms is the conversion of the output from practice management systems into HL7 messages. They state there are 3,000 messages per day although most of these are reports from specialists to GP rather than referrals. All their

[120] See Appendix H for information on the new PIP e-Health Incentive

[121] Integrating the Healthcare Enterprise – see http://www.ihe.net.au/ (Accessed 6 Sep 2009)

messages are encrypted and their digital signature approach is approved by Standards Australia.

Medical Objects has a technical perspective on the barriers to adoption. They consider that the greatest barrier is the compliance and quality of the electronic message. They consider that gaining compliance for HL7 Message structure (e.g. escaping delimiters) is much more achievable than tackling atomic clinical data. They feel you cannot tackle atomic data until the message quality improves.

2.8.3 Best Practice

Best Practice sees the low number of Specialists using clinical systems as a key barrier to the take up of e-referrals. Although there is a reasonable take up of billing / front desk systems.

The low take up of clinical systems by specialists is attributable to:

- The absence of benefit from repeat prescriptions for most specialists.
- Specialists have not had government support - compared with the infrastructure support and funding that GPs received in 1999 and onwards.

At this stage, specialists have little to gain from e-referrals. Furthermore, the demands (from Medicare Australia) for encryption and digital signatures have made e-referrals hard to implement without a clinical software package.

2.8.4 Argus

ArgusConnect uses the Divisions of General Practice as their main means of influencing GPs to adopt Argus. They state that in excess of 50% of the Divisions are formally committed to encouraging the use of Argus in their areas and these Divisions also promote the use of Argus amongst specialists and allied health providers that work with their members. They would consider they have the largest number of connects as a platform for e-referrals. They have 9,700 practitioners of which 6,600 are GPs.

ArgusConnect considers that a very low percentage of referrals are being electronically communicated (perhaps 1% or 2%). They consider the reasons for this very low number has a technical context in the fact that different messaging providers have incompatible implementations of digital signing, there is still a lack of formality in the HL7 message payload, especially at an atomised level, and there is a lack of interconnectivity between messaging systems. Notwithstanding these limits ArgusConnect has proceeded to deploy a digital signing capability for Argus.

2.8.5 Genie

Genie has a reasonable presence in the specialist market and the perception is that they are market leader (see section 1.6.3).

Genie's observation of trends is that it is the wealthier procedural specialties that are computerising the most. They suspect that many of the non-procedural specialists, e.g. paediatricians, physicians, etc. utilise HCN's MD. They see the market as divided into three: GPs, non-procedural specialists, and procedural specialists. Genie's main market is the procedural specialists.

Virtually every practice using Genie creates their letters back to referring doctors within Genie. Perhaps 50% will still keep hand-written records of their consultations, but 100% will record the referring doctor, and will write their reply letters using Genie. They have

to record the referring doctor, so that their name will appear on invoices, which is a Medicare requirement.

2.8.6 HCN

HCN is the major provider of desktop solutions for General Practice with their Medical Director product. They are also a major player (along with Genie) in the specialist space. HCN also have their own proprietary secure messaging function built into their software.

HCN considers the barriers to the take-up of e-referrals (especially into the public hospital space) are similar to the barriers to the take-up of discharge summaries from the public hospitals. Hence, they believe that e-referrals should leverage discharge summaries.

HCN consider that the first step is to have templates to define the content of the referral, and *then* agree how to:

- Package the content (encryption/ digital signatures etc) and
- Send the information electronically using the variety of suppliers and
- Manage the processes of acknowledgment when the referrals are read.

HCN currently supply a number of their own templates as a baseline for new clients. There is an opportunity for a national organisation in providing the coordination of the baseline information required for these templates.

2.8.7 HealthLink

In Australia the company uses the AS4700.6 message wherever possible and delivers discharge summaries for the ACT and West Australian Departments of Health in this format.

In New Zealand HealthLink currently sends approximately 4.3 million Referral, Status Report and Discharge Messages annually using store and forward messaging – 90% of hospitals and nearly 100% of New Zealand's GPs use this service.

More recently (over the past two years) HealthLink has moved its focus away from messaging based eReferrals onto a web-services based online eReferral approach, whereby a hospital (or specialist) publishes the referral types it will accept as a series of referral templates or forms, this enables the hospital/specialist to have greater control of the referral they receive.

HealthLink is supportive of having a library of referral forms/templates for use by GPs. They tend to have a larger number of different templates although this is not aligned with the single template (or small number of templates) comments from Dr Hobbs (see section 2.7.2). HealthLink considers there is an opportunity for NEHTA to support the development of a library of templates.

For the communication of the referrals (and all other messages) HealthLink are very HL7 focused.

HealthLink considers there are very few e-referrals happening in Australia – perhaps 2-4% and only being undertaken by the enthusiasts. They consider that Referrals, Status Reports and Discharge Summaries (RSD) as part of the same communication approach.

HealthLink considers that a major impediment to growth of provider to provider messaging is the poor adherence to messaging standards, and a consequent reduction in reliability. In particular they are concerned at:

- Use of the pathology report messaging formats and directories for referral and discharge messages
- Lack of concern about the robustness of acknowledgement messaging loops.

2.9 International Research

The scope of the assignment included international research, which intended to be broad and focussed principally on the rationale for particular approaches taken in other countries with regards to referrals. It is not a full analysis against the information model as outlined earlier.

This research was conducted in person for England and by phone interviews for Denmark, New Zealand and Canada. This research was constrained by time.

The referral form as used in Scotland (Appendix B.2) is being studied by the RACGP for relevance/use in Australia. NEHTA may consider that further input may be required from Scotland.

2.9.1 England

The English environment is very mature with respect to the use of ICT in primary care and specifically in general practice. This is partly due to the funding model and the use of incentive payments systems such as QOF (Quality Outcome Framework).

In addition there has been the implementation of “Choose and Book” (CAB) as a key initiative as part of the NPfIT (National Programme for IT).

CAB provides the ability to book an appointment for a patient for services such as public outpatient specialist clinics. The system is seen to be successful.

A key platform for the system is accurate demographic data for the patient, the referring doctor and the clinic to which the patient is being referred. An adjunct to this sound platform is the capture of the clinical detail necessary for the referral.

It is significant that this aspect of the referral is not formally part of the CAB system although several of the GP systems use templates to create the referral form which can be attached to the CAB system. The receiving systems are not considered mature in their handling of the clinical form. In effect they just view the form rather than automatically import the clinical data.

Relevance for Australian Environment

Referrals from English GPs are mainly targeted at NHS-run public specialists associated with hospitals. The vast majority of referrals from Australian GPs are to private specialists.

Nonetheless, a key learning is the focus the English have put on a basic referral based upon good quality data on patient demographics, referring doctor details and referred-to clinician details.

2.9.2 Canada

The overall e-health strategy is heavily linked to Canada Health Infoway (CHI). The feedback from CHI is that e-referrals are quite immature and the CHI information / guidance is for planning purposes. As an indication: the following is an extract from the CHI Implementation guide Volume 7 Section 2:13 Referrals and Referral Notes:

User Experience and User Interface Considerations

> *These specifications provide no guidance on what sections should be present within referrals of different types, nor what the appropriate data or formatting is for such documents. Implementations may want to consider supporting standardized templates for the capture of referral information to improve data consistency and ease of use.*

The levels of GP computerisation is relatively low compared with Australia. This is probably one of the factors limiting the uptake of e-referrals. Alberta is one of the most advanced provinces in term of the levels of GP computerisation. Feedback from the Physician Office System Program in Alberta is that referrals is "basic", i.e. based upon forms and electronic faxing. However this basic functionality does support keeping track of the status of referrals.

A key development in Calgary has been the development of a single common referral form for many specialist areas and complemented by detailed/specific instruction for at least 17 specialist areas.

British Columbia appear to have made some good progress with using care pathways as a review mechanism for referrals (perhaps similar to QH) although their focus has been on Mental Health referrals. The practical experiences of Canada could be investigated further by NEHTA if care pathways become a building block in the referral scope.

Relevance for Australian Environment

There are poor levels of GP computerisation and inconsistent level of IT maturity across the various provinces. Nonetheless there is some relevance in the pragmatic (albeit basic) approach to common templates/forms and the automatic transmission of the forms and the management of the status of the referrals.

2.9.3 New Zealand

New Zealand has one of the most advanced levels of information capacity within Primary Care Practices[122]. New Zealand has taken the approach of incorporating referrals, status notes and discharge summary into a common HL7 message called the RSD message. HealthLink is the key provider of the environment for these messages and they indicate that there are approximately 4.3 million RSD messages per annum. The majority of these messages are discharge summaries, status reports and specialist letters back to the originating clinicians. Approximately 10% of this total (400,000 messages annually) are referrals sent from GPs to other providers (specialists, physiotherapists, hospitals and other providers).

As stated elsewhere in this report, HealthLink's focus has shifted to provision of online (web services based) eReferrals and currently more than 33% of New Zealand is in the throes of implementing this technology.

Relevance for Australian Environment

The environment is very mature in terms of information exchange with large numbers of discharge summaries and status reports.

Use of online referrals in the manner undertaken by HealthLink necessitates a highly reliable underpinning messaging infrastructure for the sending of status update messages

[122] www.commonwealthfund.org 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians

and unsolicited messages. Development of a sound underpinning messaging framework is a 'key first step' in developing an online referrals environment.

2.9.4 Denmark

The Danes are one of the most mature users of electronic communications. Denmark has 5.5 million inhabitants looked after by 3,500 GPs and just over 800 specialists. The Danes have a system of unique personal identifiers. All pharmacies, hospitals and GP clinics have EDI (Electronic Data Interchange) capability and significantly 94% of the specialists also have EDI capability. Furthermore Denmark has the highest penetration of broadband in Europe and over 95% of the population have access to the internet at high-speed.

These factors collectively have created a rare environment for the advancement of EDI and the complementary access to an e-health portal. The Danes have been successfully working in this space for over 15 years. They achieved over 500,000 messages a month back in 1996. They currently send close to 4 million per month. Back in the early 90's they chose EDIFACT rather than HL7.

They have been successful in the provision of electronic discharge summaries (109K per month) and e-referrals (80K per month) from the point of view of the numbers of messages being sent and received.

All referrals from GPs to private specialists are done electronically and almost all (97%) reports back to the GP are also electronic. E-referrals to specialists are sent from a GP and is not point-to-point. They are via a central server from which the specialist can access the information once advised by the patient.

There is a perception that the content (included in the e-referrals) is sufficient for the referrals to the specialist but would benefit from more structure when the referrals are to the hospitals. Addressing this increased structure is potentially a future collaboration activity with New Zealand.

Relevance for Australian Environment

The EDI environment is one of the most mature in the world and has benefited from over a decade of success. Notwithstanding this difference, there is relevance in that the Danes have achieved high levels of e-referrals using a basic format (for the clinical information being exchanged) as a starting point.

3 Key Considerations

The research and consultation undertaken for this project has produced a detailed view of the health care environment that relates to referrals. The preceding chapters are rich in content and insight, and will be a useful reference for NEHTA as its e-referrals program further develops, and is implemented by the health care system.

This chapter distils the detailed results of the environmental scan into key areas and poses some essential questions for consideration by NEHTA. In addition it identifies a small number of opportunities that emerged in the course of undertaking the project that NEHTA may consider as early initiatives for its e-referrals program.

3.1 Factors that would Influence NEHTA's E-Referrals Program

Referrals are a major transaction in Australia's health care system that touches nearly every part of it. They are a significant driver of health service activity and expenditure. Hence there is considerable potential for benefits across the health system if e-health capability can create improvements in both the content of and processes associated with referrals.

In framing and developing its e-referrals program, NEHTA may consider the following factors.

3.1.1 Where to Apply E-Health in the Referrals Process

Section 1.3 of this report outlines the key steps in the referral process and hence opportunity areas for e-health. A key question for NEHTA to consider is where in the process does it make sense to apply e-health initially, and how might further applications be sequenced in the other steps.

A natural inclination exists in the e-health arena to look for messaging and related opportunities as these are readily identifiable within the e-health infrastructure focus of NEHTA's work program. There are certainly benefits that can be realised by making the assembly and transmission of referrals and subsequent reports more efficient, and it is important that solutions in these areas be progressed. These types of e-health capabilities importantly also facilitate the overall strategy towards shared electronic health records.

However the overwhelming advice from key clinical leaders is that priority should be given to improving the front-end of the referrals process, i.e. in assisting the decision-making related to whether a referral is necessary and then, if so, to ensure a quality referral is created[123]. This includes providing knowledge support that can promote the "thinking time" necessary in areas such as differential diagnosis, opportunities for management, appropriate investigations, and in considering referral options. There is a strong belief that using e-health to improve these steps will have a dramatic effect on quality, with flow-on improvements to quality-of-care, health system efficiency and importantly expenditure.

E-Health alone will not provide the necessary improvements. See Appendix H for an overview of a study that shows that GP education too can have significant impact.

[123] See Appendix I for information on a study on this topic.

In addition a strong sense came through in the consultation process that the application of e-health in assisting with the work-flows associated with referrals would have a dramatically positive effect on risk and patient safety. Benefits related to this would occur more comprehensively when referrals and reports are transacted electronically, as the status of each could readily be ascertained in an integrated e-health environment as compared to paper-based siloed systems. Notifications, acknowledgements and alerts could be created in such an environment that would also decrease risk and improve overall efficiency.

So, it would be prudent for NEHTA to consider a multi-pronged approach to its e-referrals program such that project opportunities are selected that can a) leverage the e-health infrastructure it is developing, and b) address key health system priorities, e.g. relating to quality and safety. These need to be progressed in unison, within an overall strategic program framework.

3.1.2 Where in the Health System to Apply E-Referrals

In addition to the key question discussed above, selecting initial and then sequencing further e-referrals applications in various care settings will be crucial to the ordered achievement of benefits.

As the data and analysis presented in section 1.6 of this report illustrates, the dominant generator of referrals is general practice (approximately 13M per annum[124]), with specialists and AHPs being the dominant receivers of GP referrals (approximately 12.4M per annum). GPs too are the dominant receivers of reports from referred-to clinicians, with approximately 7M per annum received. These referrals drive a huge amount of health system activity and hence significant expenditure, so even small changes in volume could achieve significant benefits.

Importantly, this pattern of referrals-related "traffic" is between community-based care settings and does not directly involve hospitals. The majority of GP referrals to specialists do result in the specialist referring the patient to a hospital for admission. Rates for this were not available or reliable; however they are believed to be a reasonable proportion of the approx. 8.7M per annum of referrals from GPs to specialists.

Referrals by GPs directly to hospitals and other care settings are not insignificant or unimportant, but the difference in activity levels is stark.

This question of where to prioritise the application of e-referrals capability is important if the intent is to create the greatest possible positive impact on the health system. If this is the goal, then logic would suggest a priority would be to target those parts of the health system with the greatest end-to-end referral activity. The rationale being that improvements to the referrals process from e-health will scale up to create more significant benefits for the overall health system in the areas where most referrals occur as compared to other areas where less activity occurs. This will need to be balanced against such factors as the ease with which such changes are likely to bring about the desired income, and the capacity and readiness of that sector to change its processes.

Focusing on referrals into the public health system is important, but is unlikely to yield the greatest outcome. By the time a patient enters a public hospital it may be too late and the cost of the episode of care is likely to be higher than it would be if the patient's care

[124] Excludes pathology and radiology – per the defined scope of the project.

was managed in the community. The opportunity then is to look further upstream and to consider improving referrals between GPs and specialists initially, but also allied health.

Again a multi-pronged approach to this key question may also be worthy of NEHTA's consideration. It is reasonable, given its jurisdictional ownership, that NEHTA look to opportunities for e-referrals involving publically funded health services – in particular hospitals. However the high levels of referral activity occurring between community-based care providers is a reality and it would be prudent for NEHTA to also consider opportunities for this important constituency. This is increasingly important now with State and Territory Health Departments encouraging named referrals to specialists for the provision of outpatient services.

3.1.3 Dependencies to Consider

The benefits possible from e-referrals are dependent upon an effective approach to change management, and importantly the achievement of other aspects of NEHTA's work program. These include health identifiers across the whole health system, authentication services, messaging services, terminologies such as SNOMED CT and AMT, and an appropriate privacy and security framework. This is not to say that work on e-referrals should be delayed until these facilities are operational. Indeed the opposite is the case.

Crucially it needs to be stressed that these e-health capabilities, including the establishment of e-referrals, will fundamentally only create a platform that on its own will not deliver benefits. As highlighted and stressed in the National E-Health Strategy (see section 1.4 above) all four strategic streams need to be undertaken in a tightly coordinated and concurrent manner – with Change and Adoption being the key stream related to the achievement of benefits. There is a dependent relationship between these topics, as below:

- Benefits cannot be achieved without change, and
- Change cannot be sustained without benefits.

3.1.4 Benefits of E-Referrals

A number of key potential benefits related to e-referrals that were highlighted during the consultancy project are discussed below.

Improved Accuracy of Demographic Information

E-referrals when supported with Unique Healthcare Identifiers will allow more accurate and rapid identification of patients, providers and service locations, and hence minimise errors such as those associated with duplication of records (e.g. a record of missing important information about a drug allergy). There will also be savings in both clinical and administrative staff time across the health system as a whole.

Improved Accuracy of Clinical Information

Once both the referrer's and referred-to clinician's systems have the capacity to integrate atomic level (codified) information such as medication information (including allergies and adverse events), current and past medical history, family history, and investigations (completed and pending), this information will be available at the point in a patient's care when and where it is most needed. This will make the referral process safer for patients and produce better health outcomes.

Decision and Knowledge Support for Quality Referrals

Tools are needed that can provide information to clinicians at the time of making a decision about whether a referral is required, and also during the referral writing process to assist the referrer in creating a better quality referral. If a referrer is prompted to provide the information required by the referrer (individual clinician or organisation) there will be a greater chance that the information provided will allow a more accurate and timely allocation of an appointment to that patient. Depending upon the protocol of the receiving organisation it would also limit the number of phone calls or returned referrals to the original referrer in order to capture any missing or imprecise information. An example of a knowledge support system that is designed to improve the quality of referrals is the Map of Medicine[125].

As well as delivering information to the health care professional who is initiating the referral there is an opportunity for the decision support system to provide the patient with information about the purpose, importance, benefits and risks associated with a referral. For example, if a patient was referred to an open access endoscopy clinic for a colonoscopy because of rectal bleeding, the information sheet should contain information about the possibility of colon cancer, and the importance of attending for the colonoscopy. On the harm side, information about the need for bowel preparation, fasting, how to deal with medications, and the risk of bowel perforation would give the patient a basis of knowledge to discuss this further with the colonoscopist if they desired. A record that this information was given to the patient could provide important medico-legal proof that a patient was adequately informed prior to the procedure, as well as improving the patient's experience by being better informed.

Cost Reductions

Full electronic referrals, in a health care system with a high level of interoperability like Denmark, could reduce costs associated with referrals by up to twenty-five percent[126].

Legibility

The risk of miscommunication through illegible handwriting is removed.

Component of a Shared Electronic Health Record

As identified in NEHTA's Benefits Realisation Study[127] referrals and the resulting reports (e.g. letters and discharge summaries) would form an important component of the shared record; and also the health profile information (e.g. medications, investigations) would improve the safety and quality of the health care system that patients traverse.

[125] See http://www.mapofmedicine.com. Queensland Health is implementing this across the whole State, including for use by GPs (Accessed 19 May 2009)

[126] Cannaby S, Westcott D, Pedersen CD, Voss H, Wanscher CE. The cost benefit of electronic patient referrals in Denmark. ACCA, MedCom and European Commission Information Society Directorate.

[127] Sprivulis P, 2007 Benefits Realisation Study: Detailed Methods, NEHTA

3.1.5 Barriers to e-Referrals

Input from DoHA for this report showed that a preliminary review of Commonwealth legislation surrounding current referral and request processes indicates no legislative barriers to creating, transmitting, receiving or storing referrals or reports electronically.

However a range of barriers were identified in the project and are summarised below.[128]

ICT Maturity, including Connectivity, Practice Systems, Organisational and Skills

There are sectors in health care in Australia that are comparatively well advanced in their use of ICT. Most notable is general practice where significant uptake has occurred –importantly, largely due to government programs such as the PIP scheme and Broadband for Health. In addition programs delivered by, amongst others, the RACGP and Divisions of General Practice have been progressively improving the organisational information management maturity of general practices both directly and indirectly[129].

In addition, a rigorous accreditation scheme for general practice encourages advanced ICT use by practices. Accredited practices are shown to offer their patients an expanded range of health care services, e.g. arrangements for after-hours cover, and systems for the follow up and review of tests and results. Importantly too, general practice has been incentivised to transact electronically with their major funder, viz. Medicare Australia, for claims, payments and other business-related transactions.

This level of financial support has not been provided to other community-based care providers, who typically have comparatively low levels of ICT maturity, e.g. private practicing specialists, allied health professionals and aged and community care providers. Given the significant level of referral activity between GPs and specialists and allied health providers, the low level of computerisation for specialists and allied health is considered a major barrier to the uptake of e-referrals solutions.

In terms of public hospitals, State and Territory Health Departments, due to being much larger organisations, invest in ICT at a higher level and generally have systems, connectivity and organisational capabilities that permit a more sophisticated approach. A similar situation too exists for private hospitals.

This inconsistency in levels of ICT maturity across the health system presents a barrier to effective participation in e-health services, such as e-referrals, that require advanced ICT capabilities at the end points, e.g. for a GP and an allied health provider, for effective interoperability.

Like many of the barriers, this is not unique to referrals and is a systemic issue that needs to be dealt with more broadly and considered in health policy circles.

There is a natural motivation for health care service providers more generally to invest in ICT as part of their own business improvement strategies, for example as they strive for efficiencies, competitive advantage, etc. Organisations in other industries do this without government support. However in a highly socialised health care system, as in Australia, the perversity in the relationship between who invests and who benefits makes the application of simple market models problematic.

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[128] Please also refer to section 2.4.8 of this report for a detailed list of barriers provided by Qld Health

[129] The Information Management Maturity Framework (IMMF), developed and implemented in partnership between DoHA and AGPN is such an example. See http://www.agpn.com.au/site/index.cfm?display=26317 (Accessed 23 May 2009)

Data Quality in Practice Systems

Many sources point out the poor quality of patient data (both demographic and clinical) that is present in GP desktop computer systems. In addition to the many concerns raised by the respondents identified in this report our research identified two systematic reviews focusing on different aspects of data quality in GP practice management systems.

The first review[130], though based largely on UK studies (26 out of 37), showed that there are deficiencies in reliability and validity (the two important measures of data quality). It would be reasonable to assume, that given the maturity of use of GP systems in the UK and the linkage of data quality to payments, that the quality of data on Australian systems would probably be inferior.

The second review[131] completed in 2006 studied methods used to improve data quality in GP systems. While many studies brought about modest improvements in data quality (mainly through feedback), the quality of the research prevented definite conclusions from being drawn. These factors pose a significant challenge for any health care system wanting to reuse existing data from GP systems.

Without addressing this significant issue, there is a risk that "dirty" data may enter the shared e-health environment and hence cause issues in other settings besides the originator's. Once inaccurate data enters a shared electronic environment it is very difficult to trace and hence fix the problem when it is discovered. It is best to find ways to ensure that only quality data enters this shared environment.

Ways to address this barrier include education and training, but also incentives linked to a practice accreditation scheme supported by professional practice standards across all professional bodies that interface with the health care system.

Privacy Issues

The generation of an e-referral from a complete medical history stored in a GP computer or as part of an individual electronic health record and then transferred into an electronic message may not be viewed in its entirety by either the referring doctor or patient. This could give rise to a scenario where certain sensitive information (e.g. testing for, or past history of, sexually transmissible infections, or psychiatric illnesses), that the patient may not want to share with a particular provider, is released.

The current state of hand writing or modifying a template derived referral allows either or both the referrer and patient to consider the appropriateness of sharing this information.

Level of Investment Required for Change and Adoption

Given the well-recorded history of failed projects that implement IT solutions in health and other industries, it would be negligent in these current days to embark on a program like e-referrals without commitment to invest adequately in change and adoption.

This is one element that England's Connecting for Health (CfH) program admits it had initially "underdone".

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[130] Thiru K, Hassey A, Sullivan F (2003) Systematic review of scope and quality of electronic patient record data in primary care *British Medical Journal* **326** 7398 page 1070.

[131] Brouwer HJ, Bindels PJE and Van Weert HC. (2006) Data quality improvement in general practice. *Family Practice*; **23**: 529–536.

If the education of a sufficiently large proportion of health practitioners in the use of e-health systems is to a high enough standard, the task takes on very large proportions. Add to this other change and adoption requirements, such as incentives and knowledge and support tools and services, then the oft referenced multiple of 3-4 times of the IT investment being required for change management[132] becomes readily believable.

Lack of preparedness to invest in change management at the necessary level would be a major barrier to success for e-referrals.

Other Drivers of Change

It needs to be recognised that some healthcare providers, such as AHPs and specialists, will not achieve tangible benefits early in the adoption process but will have overheads to implement e-referrals. This will relate especially to business process re-engineering to integrate e-referrals into both their clinical business processes and practice management systems. To achieve successful change in these types of practices, consideration ought to be paid to other levers available. These drivers may include accreditation requirements as discussed, changes to government policy and funding drivers such as via Medicare Australia and/or private health fund reimbursements for e-referral capability and utilisation.

3.1.6 Risks

Section 1.5.2 above discusses the significant risks related to content and work-flow in referrals. Section 2.3.8 includes two relevant legal cases that illustrate risks related to referrals. The RACGP and the AMA in their professional practice standards include requirements for referrals that aim to reduce risk for doctors and their patients – see Appendix D for details. These combine to highlight that there is much risk associated with referrals.

A referral is both a legal and business instrument. It helps to coordinate the continuity-of-care for patients by ensuring key information is shared that supports the provision of quality care. When done effectively, referrals can improve patient safety by reducing risk.

A significant opinion is present from those consulted for this report that an e-referrals solution that incorporates intelligent work-flow functionality would make a considerable difference to quality and safety. Indeed notably, the Australian Commission on Safety and Quality in Health Care holds this view. Amongst other providers, private hospital operators believe the presence of at least a basic audit trail for referrals, and the inclusion of referrals-related notifications and alerts, would also go some way towards addressing these types of risk.

As reported above, poor data quality is a barrier to the production of e-referrals. But it critically also presents a significant risk to quality and safety, as decisions and actions may well be undertaken based on erroneous data sent in e-referrals, resulting potentially in harm.

If the change and adoption related barriers discussed above are not addressed (especially for training and education), the aging medical workforce (both GPs and specialists) will

[132] See http://www.hsj.co.uk/nhs60-all-roads-lead-to-it/1118469.article for an example (Accessed 23 May 2009)

be slower than desired to adopt practice based computerised systems that are essential to the overall success of any and all e-health initiatives, including e-referrals.

In addition to the clinical and business risks that exist in the use of e-referrals in the delivery of health services, key risks exist also at a program level. For example, the significant benefits that e-referrals could bring would not be achievable without the completion of dependent facets of NEHTA's infrastructure-related work plan.

3.2 Identified Opportunity Areas

There is undoubtedly potential for e-referrals to make a significant difference in Australia's health system over the long-term and in all care settings that create and receive referrals. This report has identified four key areas that are considered high priorities for immediate focus. These are:

- Creating quality referrals.
- Reducing the risks related to referral work-flows.
- Defining standards and specifications for e-referrals content.
- Improving process efficiency for referrals.

It was not within the scope of this report to conduct a detailed assessment of possible opportunities for NEHTA's e-referrals program, but instead to highlight any that emerged through the course of the project. Each of the above is discussed below.

Creating Quality Referrals

As reported earlier in this report, the application of e-health in the early steps of the referrals process is viewed as the highest priority by key clinical leaders and, if done effectively, would create significant system-wide benefits.

Making tools available that can assist with improving diagnosis and then, if necessary, creating appropriate referrals, in a way that targets key health system priorities, would result in changed referral patterns, probable avoidance of some health system expenditure and a better experience for patients. Doctors too would have access to knowledge and resources that may increase their abilities to care for patients within their practice settings, equating with cost savings (e.g. avoidance of specialist referrals).

An existing initiative in this space that NEHTA may consider a relationship with is the Map of Medicine project in Queensland Health[133]. This project is making this web-based tool available to GPs mainly to improve referral quality to QH clinics and services. The project is integrating the Map of Medicine with GP desktop systems and with a health service directory so that referrers are aware of locally available services, including details of opening times, scope of services, etc.

It is important to note that implementing e-health solutions to address this critical area of requirement can be done independently of solutions that involve the electronic assembly and transmission of referrals and reports.

[133] Note that this is what QH calls the project.

Reducing the Risks related to Referral Work-flows

This report highlights the significant risks associated with referrals and how an e-referrals solution that includes intelligent work-flow functions could potentially address many of the issues that give rise to harm, legal claims and pay-outs. Examples of such functions include the creation of acknowledgements, notices and alerts at key stages in the referrals process based on pre-defined thresholds and parameters.

It is acknowledged that this becomes more feasible when referrals and reports are transacted electronically between care providers. But at the minimum, for instances where paper forms continue, some form of audit trail (perhaps with bar-codes) would be beneficial.

No existing initiatives that specifically address this key area of requirement were identified in the preparation of this report. Hence NEHTA may consider seeking or creating this sort of capability in a new or other initial project. An opportunity to collaborate with the ACSQHC on a joint initiative to explore this area may be appropriate.

Defining Standards and Specifications for E-Referrals Content

This report highlights the vast number of different referral forms that are being used in the Australian health care system. An initial analysis indicates there to be many common items of data in these and that variations tend to relate to the specific information needs of the receiver and/or requirements of the funder. A number of projects have been successful in rationalising these in some areas, e.g. Victoria's VSRF and SCTT.

The limitations inherent in having written-on paper as the form of the referral and the complexity in the range of requirements means that coming to agreement on a single standard referral form layout for use across all of health care would be very challenging, and probably unlikely. It is possible however that initially working towards this is a sensible way to bring together stakeholders to create a coordinated approach and to gain agreement on key aspects.

Computer-based forms systems, with their information hierarchies, decision-trees and ability to include data from practice systems, could, in time, provide the necessary flexibility. Such systems could still generate the referral, complete with content, on paper for use by those health care providers who require paper. With this approach, a common referrals information model with specifications of core data and guidelines for additional data requirements (driven by the referral context) could be developed with further stakeholder consultation. This will not be easy and resistance should be expected.

This report also highlights the key issue of data quality and the risks of erroneous data being automatically populated into an e-referral. It also highlights the major concern of constraining the thinking and care required of the referrer in creating a *quality* referral.

The authors are aware that NEHTA is progressing an initiative to define the core data elements for referrals, and suggests, if not already being done, that the above issues and ideas also be considered as part of that project.

Improving Process Efficiency for Referrals

There is little doubt that e-referrals will eventuate and be beneficial, in time. And that many of the benefits will be maximally realised when referrals and reports are transacted electronically throughout the health system.

Hence in addition to the above priority areas, it would be appropriate for NEHTA to support initiatives that also aim to improve the efficiency of the assembly and transmission of referrals and reports via e-health infrastructure and related solutions. This would leverage NEHTA's other work in areas such as identifiers, authentication, secure messaging, service directories, terminologies and the shared EHR, for example.

Many initiatives, both jurisdictional and commercial, were identified in the development of this report that target, either separately or together, this specific area of requirement.

A key omission identified however in nearly all cases is the type of intelligent work-flow functions, discussed elsewhere in this report, that are intended to address key risks in the referrals process. NEHTA may consider the importance of including this in any initiative it supports in this area.

Of the jurisdictional initiatives, the Victorian E-Referrals project appears to be well architected, supported and advanced, and would be worthy of consideration by NEHTA as the basis of a joint project, with the potential to broaden its focus to include other care settings and for possible national application.

Appendix A Glossary

	Definition
A&E	Accident and Emergency (Department of Emergency Medicine)
ACSA	Aged and Community Services Australia
ACAA	Aged Care Association Australia
ACAT	Aged Care Assessment Team
ACCNA	Australian Community Care Needs Assessment
ACSQHC	Australian Commission on Safety and Quality in Health Care
ADA	Australian Dental Association
AGPAL	General Practice Accreditation Agencies
AGPN	Australian General Practice Network
AHCA	Australian Health Care Agreement
AHPA	Allied Health Professional Association
AHP	Allied Health Practitioner
AHML	Australian Healthcare Messaging Laboratory
AHS	Australian Health Standards
AIHW	Australian Institute of Health and Wellness
AMA	Australian Medical Association
AMC	Australian Medical Council
AMT	Australian Medicines Terminology
APA	Australian Physiotherapy Association
APS	Australian Psychologists Association
ATAPS	Access to Allied Psychological Services
CAB	Choose and Book
CACP	Community Aged Care Package
BEACH	Bettering the Evaluation and Care of Health
CDA	Clinical Document Architecture
CENA	Carers Eligibility and Needs Assessment
CfH	Connecting for Health

CHI	Canada Health Infoway
CoC	Continuity of Care
CRIS	Client Relationship Information System
CRISSP	Client Relationship Information System for Service Providers
CRM	Customer Relationship Management
DI	Diagnostic Imaging
DHS	Department of Human Services (Victoria)
DNA	Did Not Attend
DoHA	Department of Health and Aging (Commonwealth)
DVA	Department of Veteran Affairs
eACCR	Electronic Aged Care Client Record
EACH	Extended Aged Care at Home
ECIS	Early Childhood Intervention Services
EDI	Electronic Data Interchange
EDIFACT	Electronic Data Interchange for Administration, Commerce and Transport
ELS	Endpoint Locator Service
EPC	Enhanced Primary Care
EPRX	Electronic Patient Referral Exchange
FDB	First Data Bank
GP	General Practitioner/Practice
GPAC	General Practice Advisory Council
GPV	Victorian Divisions of General Practice
GPNNT	General Practice Network Northern Territory
GPQ	General Practice Queensland
GSMHN	Great Southern Managed Health Network
HACC	Home and Community Care
HBAC	Home Based Acute Care Services
HCN	Health Communication Network (Providers of Medical Director)
HESA	Health eSignature Authority
HMR	Home Medicines Review

HL7	Health Level 7
HRX	Health Record eXchange
HSD	Human Services Directory
HSIE	HEALTHSmart integration Engine
ICT	Information Communication Technology
IEHR	Individual Electronic Health Record
IHE	Integrating the Healthcare Enterprise
KPI	Key Performance Indicator
MBS	Medicare Benefits Schedule
MSIA	Medical Software Industry Association
NASH	National Authentication Service for Health
NEHTA	National E-Health Transition Authority
NHHRC	National Health and Hospitals Reform Commission
NLM	(United States') National Library of Medicine
NPfIT	National Programme for IT (England)
OAA	Optometrists Association Australia
OPD	Outpatient Department
PAS	Patient Administration System
PBS	Pharmaceutical Benefits Scheme
PCP	Primary Care Partnership
PIP	Practice Incentive Program
PKI	Private Key Infrastructure
PMS	Practice Management System
QH	Queensland Health
QOF	Quality Outcomes Framework
QUM	Quality Use of Medicine
RACGF	Residential Aged Care Facility
RACGP	Royal Australian College of General Practitioners
RMMR	Residential Medication Management Review
RSD	Reports and Discharge Summaries

SBO	State Based Organisation
SCTT	Service Coordination Tool Template
SEHR	Shared Electronic Health Record
SEMS	Secure Electronic Messaging Service
SPA	Single Point of Access
SOA	Service Orientated Architecture
TCP	Transitional Care Program
VSRF	Victorian Statewide Referral Form

Appendix B Samples of Referral and Related Templates

The example templates that follow represent a range of those identified during the project. They are presented so as to illustrate the diverse range of referrals that occur regularly and/or may be of interest to NEHTA in the development of its e-referrals program.

Appendix B.1 RACGP "Request for Consultation"

Practice Name
Address

Phone number .....
Fax number.....
Email.....

REQUEST FOR CONSULTATION

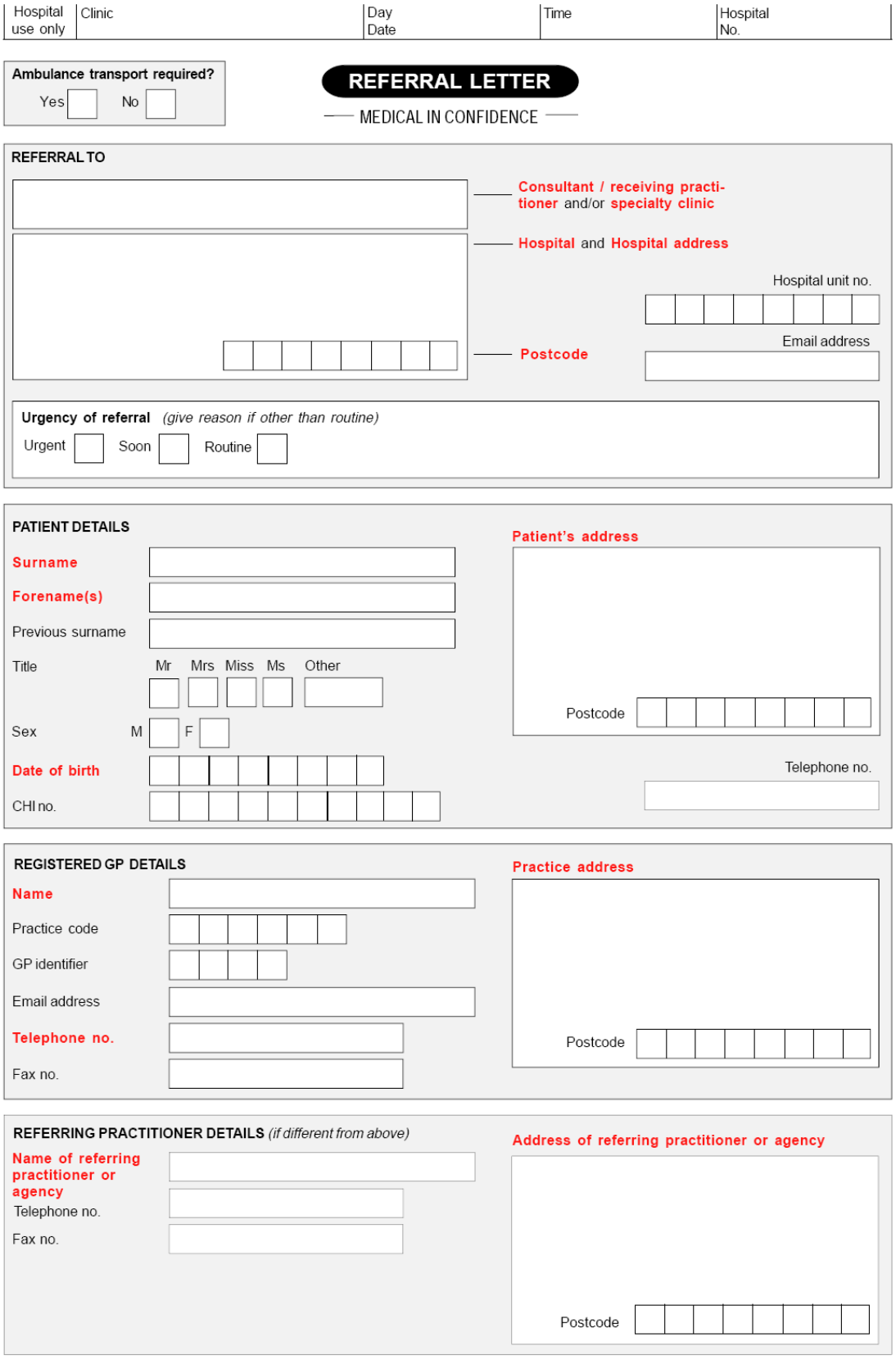
To ..... Drs. Name & Provider No.
.....
.....
.....
Dear .....
Re: Name.....
Address.....
Suburb .....P/C.....
Date of Birth .....
Record Number.....
ENCLOSURES: HEALTH SUMMARY ☐ REPORTS ☐ .....☐
Reason and expectation of referral.....
Main Problem .....
.....
.....
.....
.....
.....
.....
.....
.....
.....
Key Examination findings and results of investigations .....
.....
.....
.....
.....
.....
Current Treatment incl. medication.....
.....
.....
.....
.....
.....
Relevant social information and history.....
.....
.....
Past unhelpful medical and/or treatments .....
.....
.....
Allergies and sensitivities .....
.....
This referral is valid for ..... months
Yours sincerely

Doctor's Signature..... Date .....

RACGP028 / 2002

REFERRAL No. A 094501

Appendix B.2 Scottish Intercollegiate Guidelines Network



Hospital use only | Clinic | Day Date | Time | Hospital No.

Ambulance transport required? Yes ☐ No ☐

REFERRAL LETTER

— MEDICAL IN CONFIDENCE —

REFERRAL TO

Consultant / receiving practitioner and/or **specialty clinic**

Hospital and **Hospital address**

Hospital unit no.

Postcode

Email address

Urgency of referral *(give reason if other than routine)*

Urgent ☐ Soon ☐ Routine ☐

PATIENT DETAILS

Surname

Forename(s)

Previous surname

Title Mr ☐ Mrs ☐ Miss ☐ Ms ☐ Other ☐

Sex M ☐ F ☐

Date of birth

CHI no.

Patient's address

Postcode

Telephone no.

REGISTERED GP DETAILS

Name

Practice code

GP identifier

Email address

Telephone no.

Fax no.

Practice address

Postcode

REFERRING PRACTITIONER DETAILS *(if different from above)*

Name of referring practitioner or agency

Telephone no.

Fax no.

Address of referring practitioner or agency

Postcode

CLINICAL INFORMATION

History of presenting complaint / examination findings / investigation results

Reason for referral *(including expectation of referral outcome)*

Past medical history *(computer generated from problem lists, where possible)*

Current and recent medication *(computer generated and free text)*

Clinical warnings *(e.g. allergies, blood-borne, viruses)*

Smoking status

No. per day

Alcohol consumption

Units per week

Additional relevant information *(including patient's issues, social circumstances, and special needs)*

Signature of referring doctor (or other professional) **Date**

Appendix B.3 Victorian Statewide Referral Form for GPs

Victorian Statewide Referral Form — General Practice version Feb 2006

GP Referral

Referral Date: .....

GP Review Date: .....

Feedback Requested (please circle): YES / NO

Referral to:	**Referring General Practitioner** (stamp):
Name:	
Address:	
.....	
Phone:	
Fax:	
Email:	

Service requested:

Patient / client details:

Name:	Address: .....
Date of Birth:	.....
Preferred name/s:	Phone: ..... work: .....
Sex (please circle): Male / Female	Mobile: .....
Title (please circle): Mr, Mrs, Ms, Miss	Email: .....
Alternative Contact:	

Reason for patient referral:

Other Notes (eg current services):

Interpreter required:	**DVA Number:** .....
Preferred language is:	**Insurance:** .....
Pension Card Number:	**Medicare Number:** .....

Consent to referral and sharing of relevant information (please circle): YES / NO
Attach 'Patient Consent Form' if restrictions apply.

Referring Dr..... *Patient name:.....* *Date: .....* *Page 1*

Clinical Information:

Warnings: .....

Allergies: .....

Current Medication:

Drug name	Ltd. elapse	Strength	Dose / frequency / special

Social History:

Past Medical History:

Investigation / test Results:

Appendix B.4 Surgical Outpatients Referral, Barwon Health

REQUEST FOR SURGICAL OUTPATIENT APPOINTMENT – FAX 5226 7054

REFERRING GENERAL PRACTITIONER DETAILS:

Name:
Practice Name:
Address:
Telephone:
Fax:
Email:
Provider No:

CONSUMER DETAILS:

Surname: Forename:
Address: Suburb: Postcode:
Telephone:
Sex: Date of Birth: Age:
Alternative Contact Person:
Medicare Number:
DVA: Yes ☐ Number: WorkCover: Yes ☐ Number: TAC: Yes ☐ Number:

Patient Aboriginal or Torres Strait Islander: Yes ☐ No ☐ Interpreter required: Yes ☐ No ☐ Language:

REFERRAL DETAILS: **DATE OF REFERRAL:** **SPECIALTY:**

Urgency: Urgent ☐ Recurrent Problem: Yes ☐ No ☐
Semi-urgent ☐
Non-urgent ☐ Is this a second referral for this health problem: Yes ☐ No ☐

REASON FOR REFERRAL AND CLINICAL INFORMATION:
(Please state information regarding effects on lifestyle, work, ADLs or family situation that may influence urgency)

Colonoscopy: Yes ☐ No ☐ **Type of FOB screening:** N/A ☐ Rotary ☐ GP ordered ☐ National Bowel Screening ☐

MEDICATIONS:

ALLERGIES:

Smoking: **Alcohol:** **Recreational drug use:**

PAST HISTORY:

INVESTIGATION RESULTS:

Signature of Referring Physician: ..... **Date:** .....

Version 4 – Revised & Updated: May, 2008

Appendix B.5 WA Appointment and Referral Form

Delivering a **Healthy WA**

Department of Health

REQUEST FOR

OUTPATIENT APPOINTMENT

HOSPITAL.....

SPECIALTY/CLINIC .....

NAME OF SPECIALIST PREFERRED.....

Has the patient previously been seen by this hospital? YES ☐ NO ☐ Year..... Has the patient previously been referred to this clinic/specialty for the same condition? YES ☐ NO ☐ Is the patient suitable for Telehealth consultation (rural only)? YES ☐ NO ☐

PATIENT DETAILS

Hospital Reference Number Please circle if applicable for this referral:

M.V.I.T / Workers Compensation

DVA White / DVA Gold: Number: .....

Medicare Number:

Ref No:

Date of Birth..... Male / Female Marital Status M / S / W / D / Sep / Defacto
Country of Birth ..... Aboriginal / Torres Strait Islander / Neither
Surname..... Previous Surname..... (eg. Maiden Name)
First Names..... Preferred Name/Title .....
Address.....
Mailing Address (*if different*).....
Phone: Home ..... Work..... Mobile.....

NExT OF KIN
(Essential if under 18 years/guardian)
Relationship .....
First Name .....
Surname.....
Phone.....

REFERRING DOCTOR
Name
Address.....
.....
Postcode.....
Phone.....
Fax.....
Usual GP: As above Other (see below)
Name (if known): .....
Suburb:.....

SPECIAL NEEDS
If interpreter required please specify language and dialect:
.....
Other special needs.....
.....

LENGTH OF REFERRAL

☐ 12 months ☐ Other (*please specify*) .....

REFERRAL RECOMMENDATION
This patient needs to be seen (*please tick*)

☐ Priority 3 (within 365 days)
☐ Priority 2 (within 90 days)
☐ Priority 1 (within 30 days)
☐ Have discussed with Registrar/Consultant
Name .....
Appointment date given.....
(if applicable)

6994C April 07

REFERRAL LETTER

REASON FOR REFERRING (please tick more than one if applicable)

- ☐ Assessment Only
- ☐ Assessment and Management
- ☐ Hospital to Share Management with GP
- ☐ Diagnostic Procedure
- ☐ Suitable for Day Surgery
- ☐ Second Consultant Opinion

Dear Dr ..... Re: *(Patient Name)*.....

Current Problem .....

Past History.....

Current Medications.....

Allergies .....

Other (eg. Social, occupational, family).....

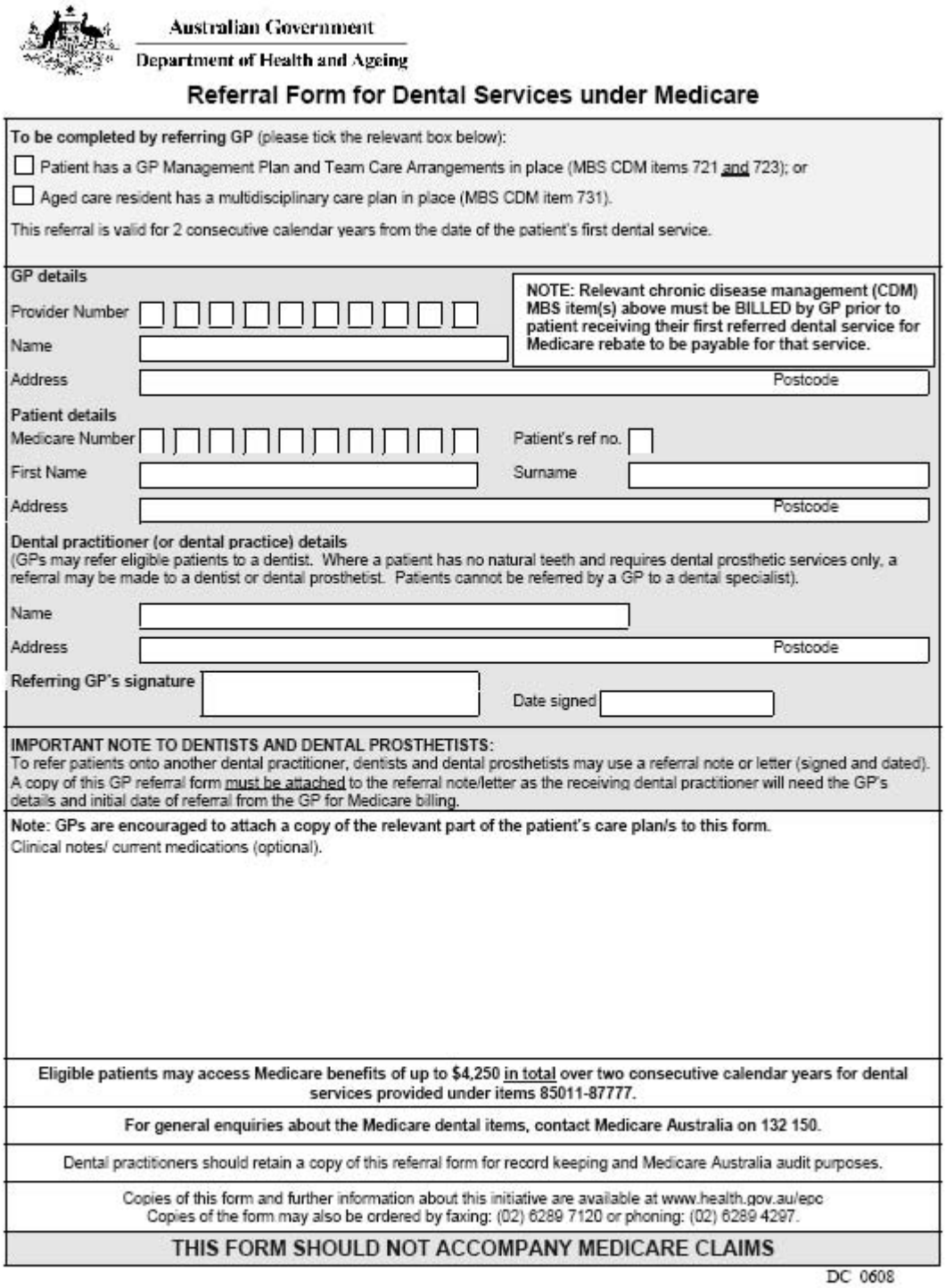
PLEASE ATTACH COPIES OF ANY RELEVANT INVESTIGATIONS / REPORTS / LETTERS

....

Doctor's Signature Provider Number Date

Template for GP software applications available on Division of General Practice website:
www.gpcoastal.com.au

Appendix B.6 Referral for Dental Services under Medicare



Australian Government
Department of Health and Ageing

Referral Form for Dental Services under Medicare

To be completed by referring GP (please tick the relevant box below):

☐ Patient has a GP Management Plan and Team Care Arrangements in place (MBS CDM items 721 and 723); or

☐ Aged care resident has a multidisciplinary care plan in place (MBS CDM item 731).

This referral is valid for 2 consecutive calendar years from the date of the patient's first dental service.

GP details

Provider Number ☐☐☐☐☐☐☐☐☐☐

Name

Address Postcode

NOTE: Relevant chronic disease management (CDM) MBS item(s) above must be BILLED by GP prior to patient receiving their first referred dental service for Medicare rebate to be payable for that service.

Patient details

Medicare Number ☐☐☐☐☐☐☐☐☐☐ Patient's ref no. ☐

First Name Surname

Address Postcode

Dental practitioner (or dental practice) details

(GPs may refer eligible patients to a dentist. Where a patient has no natural teeth and requires dental prosthetic services only, a referral may be made to a dentist or dental prosthetist. Patients cannot be referred by a GP to a dental specialist).

Name

Address Postcode

Referring GP's signature Date signed

IMPORTANT NOTE TO DENTISTS AND DENTAL PROSTHETISTS:

To refer patients onto another dental practitioner, dentists and dental prosthetists may use a referral note or letter (signed and dated). A copy of this GP referral form must be attached to the referral note/letter as the receiving dental practitioner will need the GP's details and initial date of referral from the GP for Medicare billing.

Note: GPs are encouraged to attach a copy of the relevant part of the patient's care plan/s to this form.

Clinical notes/ current medications (optional).

Eligible patients may access Medicare benefits of up to $4,250 in total over two consecutive calendar years for dental services provided under items 85011-87777.

For general enquiries about the Medicare dental items, contact Medicare Australia on 132 150.

Dental practitioners should retain a copy of this referral form for record keeping and Medicare Australia audit purposes.

Copies of this form and further information about this initiative are available at www.health.gov.au/epc
Copies of the form may also be ordered by faxing: (02) 6289 7120 or phoning: (02) 6289 4297.

THIS FORM SHOULD NOT ACCOMPANY MEDICARE CLAIMS

DC 0608

Appendix B.7 GP Referral for Psychological Services

Medicare Better Access

Referral for Focused Psychological Strategies

Referral from: (GP name, provider number, practice & address)	**Referral to:** (GP Provider of FPS, or allied health service name & address)
Phone:	**Phone:**
Fax:	**Fax:**

Dear

Please accept this patient DOB as a Better Access Medicare referral.

The patient has been referred to you for psychological treatment and has agreed to us providing you with a copy of the GP Mental Health Care Plan. The patient has been given your details to arrange a first session appointment. I am referring the patient for:

☐ Six individual Medicare Psychological Sessions **(Please tick if relevant)**

☐ Group therapy sessions (indicate number up to 12) **(Please tick if relevant)**

Please forward a Psychological Report for this patient upon completion of the sixth session. If it is your opinion that the patient requires additional sessions, please indicate this in your report.

Upon receipt of your report we will arrange an appointment with the patient to determine further psychological needs.

Comments:

Yours sincerely

Doctor Name

Doctor Signature .....

Appendix B.8 Psychological Report to Referring GP

Psychological Report to Referring GP

Fax to referring GP ..... Date .....

(print GP fax number; refer to referral for details)

Dear Dr .....

RE: Psychological Report for patient .....

Presenting complaint

Diagnosis & Assessment

Overview of sessions

Treatment progress including obstacles to treatment (ie patient non-attendance)

Recommendations

Please contact me if any further information is required regarding this report.

Yours sincerely

Psychologist
Qld. Reg. No.: 123XXX

Psychological Patient Closure form mailed or faxed to GP? ☐ Yes ☐ No

Appendix C DVA Funded Health Services and Processes

Australian Government
Department of Veterans' Affairs

DVA FUNDED HEALTH SERVICES

Feb-09

A **Gold** Repatriation Health Card entitles the holder to treatment for all conditions. **White card** holders are entitled to treatment for conditions accepted by DVA. **Orange cards** are for pharmaceuticals only. ***Some service restrictions apply for residents in aged care facilities.***

DVA SERVICE	WHO CAN REFER?	WHICH FORM?	SEND REFERRAL TO:	SPECIAL INSTRUCTIONS?	CONTACTS
Chiropractic	Treating doctor^, or chiropractor with current referral	D904 form or letterhead	Chiropractor	For treatment of muscular-skeletal conditions only	**Tel:** *1300 550 457 **Fax:** 08 8290 0422
Community Nursing	Treating doctor^, discharge planner or VHC assessor	D904 form or letterhead	DVA-contracted community nursing agency	The referral must include the referrer's provider number. Details of Community Nursing Agencies can be found on the DVA website: http://www.dva.gov.au/health/provider/community_nursing/cnindex.htm	**Tel:** *1300 550 457
Continence supplies (See Rap schedule for detail)	Treating doctor^, RN (Div 1), continence adviser	D988 Direct Order form	Continence Adviser or Direct Order Form to Contracted DVA Supplier. See DVA website for details	Guidelines and the D988 forms are available at http://www.dva.gov.au/health/rap/rap_index.htm	**Tel:** 1300 550 457
Convalescent Care (for Respite see VHC)	Treating doctor^, discharge planner or other clinical staff	D904 form or letterhead	Mail/fax to DVA for prior approval	Care available following an acute admission and transfer from hospital to facility (eg hospital, government approved aged care or convalescent facility). 21 days per financial year.	**Tel:** *1300 550 457 **Fax:** 08 8290 0422
Dental	**Only** require a referral from a dentist to attend a dental specialist	D986 form or letterhead	Mail/fax to DVA	Financial limits/some conditions apply. Contact DVA for any additional advice	**Tel:** *1300 550 457 **Fax:** 08 8290 0422
Diabetic Education	Treating doctor^, discharge planner or diabetes educator with current referral	D904 form or letterhead	Diabetes Educator	Cannot claim if veteran is receiving DVA-contracted nursing services (as service includes diabetes education)	**Tel:** *1300 550 457 **Fax:** 08 8290 0422
Dietetics	Treating doctor^, discharge planner, or dietician with referral	D904 form or letterhead	Dietician		**Tel:** *1300 550 457 **Fax:** 08 8290 0422
Exercise Physiology	Treating doctor^,discharge planner, or exercise phys with current referral	D904 form or letterhead	Exercise physiologist		**Tel:** *1300 550 457 **Fax:** 08 8290 0422
HomeFront (falls prevention)	Gold or White card holder or health professional	No form required	Telephone 1800 801 945 and ask for HomeFront	One environmental assessment in calendar year. Some financial assistance provided. For clinical needs refer to RAP	**Tel:** 1800 801 945
Medical Grade Footwear	Treating doctor^	D688 form	Podiatrist	Supplier sends the relevant documents to DVA for approval	**Tel:** *1300 550 457
Occupational Therapy Treatment or Assessment	Treating doctor^, discharge planner or Occ Therapist with current referral	D904 form or letterhead	Occupational Therapist		**Tel:** *1300 550 457
Optical	1. Treating doctor^ or optometrist 2. Not required to attend optometrist	1. D904 form or letterhead 2. No form required	1. Ophthalmologist 2. No form required	Optical supplies are dispensed by DVA-contracted optical dispensers	**Tel:** *1300 550 457 **Fax:** 08 8290 0422
Osteopathy	Treating doctor^ or osteopath with current referral	D904 form or letterhead	Osteopath	Treatment of muscular-skeletal conditions only	**Tel:** *1300 550 457 **Fax:** 08 8290 0422
Oxygen: Domiciliary Oxygen Therapy	Specialist or respiratory clinic. If unavailable – treating doctor^	D0804 Domiciliary Oxygen Request form	Direct Order Form to Contracted DVA Supplier. See DVA website for details	Supplied according to A&NZ Thoracic Society guidelines. DVA contract arrangements apply	**Tel:** *1300 550 457
Pharmaceuticals including Nutritional Supplies	Treating doctor^	Tick 'RPBS' on prescription	Authority prescriptions to VAPAC. For mailed authorities: Reply Paid 9998, VAPAC - DVA, GPO Box 9998, Brisbane QLD 4001.	Supplements: LMO writes authority prescription on dietician's advice NB: VAPAC = Veterans' Affairs Pharmaceutical Advisory Centre	**Tel:** 1800 552 580 **Fax:** 07 3223 8651
Physiotherapy	Treating doctor^, discharge planner or physiotherapist with current referral	D904 form or letterhead	Physiotherapist		**Tel:** *1300 550 457 **Fax:** 08 8290 0422
Podiatry Treatment	Treating doctor^, discharge planner or podiatrist with current referral	D904 form or letterhead	Podiatrist		**Tel:** *1300 550 457 **Fax:** 08 8290 0422
Prosthetics: non-surgical ^^**Limb prosthetics**	Treating doctor^	D904 form or letterhead	Prosthetic Clinic at hospital or prosthetist	Refer to RAP schedule	**Tel:** *1300 550 457

DVA Forms, Fact Sheets and Provider Notes can be found at www.dva.gov.au

To find this chart go to www.dva.gov.au/health/provider/lmo/lmoindex.htm

^'Treating doctor' refers to Local Medical Officers (LMOs and GPs), specialists and hospital medical staff (both public and private). 'Letterhead' must include Provider Number.
Stationery orders 1800 166 366 or www.dva.gov.au/health/provider/order_forms.htm

Medical & Allied Health Providers Contact DVA on *1300 550 457 (Metro) or 1800 550 457 (Rural/Remote)

Australian Government
Department of Veterans' Affairs

DVA FUNDED HEALTH SERVICES

Feb-09

A Gold Repatriation Health Card entitles the holder to treatment for all conditions. White card holders are entitled to treatment for conditions accepted by DVA. Orange cards are for pharmaceuticals only. *Some service restrictions apply for residents in aged care facilities.*

DVA SERVICE	WHO CAN REFER?	WHICH FORM?	SEND REFERRAL TO:	SPECIAL INSTRUCTIONS?	CONTACTS
Psychology – Clinical and Counselling	Treating doctor*, VVCS, discharge planner, current psychologist	D904 form or letterhead	1 referral for 10 services in 12 month period. Prior approval for additional services and neuropsychology	One referral only per patient in 12 month period. Financial authorisation required for neuropsychology	**Tel:** *1300 550 457 **Fax:** 08 8290 0422
Rehabilitation Appliances Program (RAP)	Refer to RAP Schedule	Direct Order Form or specific DVA Application Form	If 'non prior approval item' send RAP form direct to contracted supplier	Refer to RAP Schedule for special instructions http://www.dva.gov.au/health/rapinap.htm	**Tel:** *1300 550 457
Social Work/Clinical counselling	Treating doctor* or discharge planner	D904 form or letterhead	Social worker	Limited numbers of DVA-contracted Social Workers/Clinical counsellors	**Tel:** *1300 550 457 **Fax:** 08 8290 0422
Speech Pathology	Treating doctor*, discharge planner or speech path with current referral	D904 form or letterhead	Speech pathologist	Thickeners: refer to Nutrition/Pharmaceutical	**Tel:** *1300 550 457 **Fax:** 08 8290 0422
Transport (arranged by DVA) **Note -** British, Commonwealth and Allied (BCAL) veterans (with a white card) are eligible for travelling assistance at DVA's expense for travel to treatment.	Any health provider	No form required	Health provider contacts DVA Transport via phone or fax to organise	Eligibility and treatment location restrictions exist. Refer to DVA Fact Sheets (#HSV125) Eligible Gold and White card holders who are aged 80 years and over; or legally blind or suffering from dementia can use a booked car with driver (BCWD) to travel to all DVA-approved treatment locations. All eligible Gold and White card holder aged under 80, not legally blind or suffering dementia can also access the BCWD services however they must travel to specific treatment locations only and are required to meet medical criteria. **Note -** bookings cannot be taken directly from the veteran, war widow/er, or family (even if the veteran or widow is over the age of 80).	**Tel:** *1300 550 455 or 02 9213 7588 NSW/ACT 03 9284 2270 VIC 07 3223 8444 QLD 08 8290 0281 SA/NT 08 9366 8391 WA 03 6221 6606 TAS **Fax:** 02 9213 7655 NSW/ACT 03 9284 6781 VIC 07 3223 8382 QLD 08 8290 0329 SA/NT 08 9366 8350 WA 03 6221 6610 TAS
Transport (Reimbursement of Travel Expenses)	Treating doctor*/health provider or person acting on their behalf (such as receptionist) must sign form	Veteran must lodge DVA 'Claim for Travelling *Expenses*' D800 form	Veteran to submit form to DVA to claim reimbursement. **NB: Form must be lodged within 12 months for travel for treatment and within 3 months for travel associated with a Disability or Income Support claim.** **Send to:** GPO Box 9998 in your State capital city.	**Health provider must complete** required fields in form D800. Form must be signed and dated	**Tel:** Veterans only - 133 254 Providers - Metro 1300 550 454 Rural/Remote 1800 550 464
Veterans' Home Care (VHC) (Includes Respite) **Note:** Ex-POWs are eligible for 63 days respite care	Self/family, health professional, discharge planner, treating doctor*	Not required from client	Ring National Veterans' Home Care Assessment Agency 1300 550 450 **Note:** Client cannot be admitted for respite care direct from hospital	Services provided according to assessed need only. **Respite: Current ACAT assessment required.** Up to 196 hours of in home respite or 28 days residential care(short term care in a government approved aged care or respite facility); or a combination of both in any one financial year. Emergency respite has a limit of 9 days per year.	**Tel:** 1300 550 450
VVCS - Veterans and Veterans Families Counselling Service	Self, ADF Referring Authority, health professional (GP)	Written referral or phone intake	**Mailing Addresses** as below: **SA:** 99 Frome St Adelaide 5000 **S-QLD:** PO Box 166 Spring Hill 4004 **N-QLD:** PO Box 891 Thuringowa Central 4817 **ACT:** PO Box 302 Deakin West 2600 **NSW:** PO Box 3755 Parramatta 2124 **NT:** PO Box 3374 Palmerston 0831 **WA:**PO Box 1337 Canning Bridge 6153 **TAS:** 2 Castray Esplanade, Battery Point 7004	Veterans, peacekeepers, their families, war widows/ers can refer themselves to VVCS Current serving ADF members can request a referral from the ADF DVA entitlement is not required to access service For more information on eligibility contact VVCS	**Tel: 1800 011 048*** *During business hours connects to the nearest VVCS centre After hours, connects to Veterans Line

DVA Forms, Fact Sheets and Provider Notes can be found at www.dva.gov.au | To find this chart go to www.dva.gov.au/health/provider/lmo/lmoindex.htm

*'Treating doctor' refers to Local Medical Officers (LMOs and GPs), specialists and hospital medical staff (both public and private). '**Letterhead**' must include Provider Number.
Stationery orders **1800 166 366** or www.dva.gov.au/health/provider/order_forms.htm

Medical & Allied Health Providers Contact DVA on *1300 550 457 (Metro) and 1800 550 457 (Rural/Remote)

Appendix D Key Practice and Professional Standards

Appendix D.1 RACGP Standards for General Practices 3rd Edition

The RACGP Standards for General Practices are used by general practice accreditation agencies, but the principal aim of the RACGP Standards for General Practices is a tool to assess and improve the care provided in general practices[134]. There are fifteen standards, and each standard has between one and five criteria associated with it.

Below are the key components from these standards that relate to referrals and any ensuing clinical correspondence.

Criterion 1.2.2 Informed patient decisions
Standard 1.2 Information about the practice.

Our practice gives patients sufficient information about the purpose, importance, benefits and risks associated with proposed investigations, **referrals** or treatments to enable patients to make informed decisions about their health.

Note: If a patient refuses a referral to another health care professional it is advised that the GP keep a record of this in the patient's clinical notes.

"Where patients refuse advice, procedures or treatments, an appropriate risk management strategy for practices needs to include recording of such refusals in the patient's health record, **including referrals to other care providers**, if arranged. General practitioners are encouraged to document in the patient health record an explanation of the action taken. (Criterion 2.1.1 - Respectful and culturally appropriate care - Standard 2.1 - Collaborating with patients)

Criterion 1.2.5 Costs for referred services
Standard 1.2 Information about the practice.

Our practice informs patients of the potential for costs when they are **referred** for investigation or a consultation with medical specialists, allied health professionals or other health services.

Criterion 1.6.1 Engaging with other services
Standard 1.6 Coordination of Care.

Our practice engages with a range of health, community and disability services to plan and facilitate optimal patient care. Note: The discussion mentions the need for integration with other services, and the need for the practice to take an active role in engaging other services to assist in a patient's care.

Criterion 1.6.2 Referral documents
Standard 1.6 Coordination of Care.

Our referral documents to other health care providers contain sufficient information to facilitate optimal patient care.

[134] Paraphrased from www.racgp.org.au/standards (Accessed 3rd May 2008)

Criterion 1.5.4 System for follow up of tests and results
Standard 1.5 Continuity of care.

Our practice has a system for the follow up and review of tests and results.

Criterion 3.1.2 Clinical risk management system
Standard 3.1 Quality and Safety.

Our practice has a clinical risk management system to enhance the quality and safety of our patient care.

The practice needs a system aimed to ensure that:

- all received test results, and clinical correspondence (eg. reports from other health care providers or WorkCover letters) relating to a patient's clinical care are reviewed
- clinically significant tests and results are followed up.

Appendix D.2 AMA Position Statement – Referrals within the Profession

This 2007 document (and currently in effect) is reproduced in full from the AMA website[135].

PREAMBLE.

1.1 The AMA believes the role of the General Practitioner to be central to the patient's management. As the first point of contact and the primary care provider, the general practitioner is responsible for coordinating the ongoing health care of the patient, in consultation with consultant colleagues and allied health professionals, whether in public or private practice.

1.2 The referral of patients from the general practitioner to consultant colleagues is one of the strengths of the Australian medical system. The referral serves as a formal link between general practitioners and consultants. It provides valuable two-way communication towards optimal patient care.

1.3 Patients should be actively involved in the interaction between general practitioner and consultant.

1.4 With the paramount emphasis on early and appropriate communication between general practitioner and consultant, the following principles are a guide for referrals within the profession.

1.5 Referrals within the profession can be from GP to Consultant; Consultant to Consultant; GP to GP; Consultant to GP. They may also include public hospital to private practitioner.

1.6 Doctors must be mindful of the Privacy Act 1988, but consideration of privacy must not interfere with good communication.

1.7 GPs have an obligation to act as a gatekeeper to health services. They must take this role seriously and ensure that all referrals are appropriate.

1.8 If a patient asks a GP to make an inappropriate referral, the doctor has the right to refuse that request, should explain their decision to the patient and document it.

LETTERS OF REFERRAL.

2.1 A routine referral should be in writing or alternatively transmitted by electronic communication. Urgent referrals may be verbal, but should be confirmed by a written referral.

2.2 Any referrals transferred electronically must be encrypted.

2.3 Every patient must have a referral letter, and, except in an emergency, the referral letter should accompany or precede the patient's attendance.

2.4 It is recognized that some patients self-refer to consultants without a referral letter. While this is to be discouraged, patients' rights of access should be respected. If a patient chooses to self-refer a lower government rebate applies.

[135] See http://www.ama.com.au/system/files/node/2804/Referral_within_the_Profession_2007.pdf (Accessed 13 May 2009)

2.5 The referral process, whether for new referrals or continuing referrals, is more than just completion of a form, but incorporates clinical decision-making by the referring practitioner.

2.6 The content of a referral could include the presenting complaint and the reason for the referral, relevant current clinical information including allergies and drug sensitivities, relevant past history, current medications, relevant history of past medications, and results of relevant and recent investigations.

2.7 Referring practitioners may wish to convey additional information about a patient which may be conveyed by the referring practitioner in other appropriate ways.

2.8 The referring practitioner should indicate whether the consultant is being asked for an opinion only, for management with an episode of illness, or to take over the management of the patient within the consultant's field of expertise.

2.9 If the referral is for a second opinion, the referring practitioner should indicate that.

2.10 Where a referral letter is not mandatory for the patient to receive a Medicare rebate, a letter containing essential information should still be forwarded to ensure continuity of care.

2.11 It is important all doctors ensure that patients fully understand the importance of a referral.

2.12 Every referral made must contain adequate detail. This is vital so the doctor receiving the referral has access to all relevant information and can provide best practice care to the patient.

CONSULTANTS' LETTERS.

3.1 As soon as practicable after an episode of care, the consultant should write to the referring practitioner. A letter should normally be written even if there is no change in the clinical condition or planned management. Exceptions arise if the consultant is seeing the patient very frequently, in which case letters at periodic intervals might be appropriate.

3.2 The consultant letter could contain relevant history and clinical findings, opinion with respect to pathology and diagnosis, and a summary of management actions and plans.

3.3 Consultants' communications inform the general practitioner of developments in the patient's care, and comprise part of the primary care record. The form and speed of communication should correlate with clinical circumstances.

3.4 Consultants' communications can be a valuable source of continuing education for general practitioners.

3.5 If the referral is made by a locum or other practitioner acting on behalf of the patient's usual practitioner, the locum should request that the consultant letter be sent back to the patient's usual practitioner, noting the referring practitioner. The consultant should consider sending a copy of the return letter to both the referring practitioner and the patient's usual general practitioner.

3.6 Many patients attend two or more general practitioners. Where possible, the consultant should identify whether the patient has multiple general practitioners and should seek the patient's consent to send copies of the return letter to each practitioner usually involved in the patient's care.

3.7 When a patient moves or otherwise changes general practitioner, general practitioners and consultants should, on receiving requests for copies of past correspondence, facilitate the free flow of information to new treating doctors.

ASSISTANCE AT OPERATIONS.

4.1 It is appropriate for proceduralists to consider inviting the referring practitioner to assist at any operations on the referred patient.

RETURN OF PATIENTS TO REFERRING PRACTITIONERS.

5.1 To ensure continuity of care, consultants must return patients to the referring practitioner as soon as is practicable for continuing primary care management.

5.2 On discharge from hospital, the consultant or hospital doctor must communicate with the patient's general practitioner and convey as much information as is necessary for the general practitioner to actively participate in the patient's continuing management.

5.3 The role of every consultant involved in a patient’s care must be clear. In particular, the doctor coordinating the patient’s care must be clearly identified to the patient and all the doctors involved in the care, including the original referring GP.

5.4 Consultants should recognise that referred patients may need to see their GP for other matters during the time that the consultant is treating the problem for which the patient was referred.

INTER-CONSULTANT REFERRALS.

6.1 Consultants should generally contact the referring doctor and/or the patient's usual practitioner before referring a patient to a second or subsequent practitioner including allied health or special interest clinics.

NON-RECOMMENDED REFERRALS.

7.1 Retrospective referrals are discouraged because they disengage the referring practitioner from the development of a cohesive plan of patient care.

7.2 Indefinite referrals are discouraged because they are a threat to the continuity of care and continuing engagement of the general practitioner in the patient's care.

7.3 Where the referral is indefinite, the consultant and referring doctor must continue to keep each other informed of the patient’s progress at regular intervals.

7.4 For a repeat referral, staff should be instructed that the patient should return for consultation with the general practitioner in order to obtain an up-to-date valid referral letter.

7.5 In the event that a consultant sees an unreferred patient, consultants and their staff should not request patients to obtain retrospective referrals.

STAFF MATTERS

8.1 It is recommended that both general practitioners and consultants ensure that their staff are accurately trained in the legal requirement for referrals as required by Medicare Australia.

8.2 It is recommended that all practice staff are trained to be aware of their role in promoting effective communications within the profession, including effective and timely referrals. Practice staff should be trained not to place any barriers in the way of communication between doctors.

8.3 Practice information booklets could describe to patients the policies of the practice in relation to referrals. General practitioner information could include the reason for referrals and the role of the consultant as a partner in the treatment team. Consultant information could reinforce the reasons for the need to return to the referring general practitioner.

Appendix E Medicare Benefits Schedule Category 2

The material below is an extract that deals specifically with referrals from the above document.[136]

G.6.1. REFERRAL OF PATIENTS TO SPECIALISTS OR CONSULTANT PHYSICIANS

For certain services provided by specialists and consultant physicians, the Medicare benefit payable is dependent on acceptable evidence that the service has been provided following referral from another practitioner.

A reference to a referral in this Section does not refer to written requests made for pathology services or diagnostic imaging services.

What is a Referral?

A "referral" is a request to a specialist or a consultant physician for investigation, opinion, treatment and/or management of a condition or problem of a patient or for the performance of a specific examination(s) or test(s).

Subject to the exceptions in the paragraph below, for a valid "referral" to take place

(i) the referring practitioner must have undertaken a professional attendance with the patient and turned his or her mind to the patient's need for referral and have communicated relevant information about the patient to the specialist or consultant physician (this need not mean an attendance on the occasion of the referral);

(ii) the instrument of referral must be in writing as a letter or note to a specialist or to a consultant physician and must be signed and dated by the referring practitioner; and

(iii) the specialist or consultant physician to whom the patient is referred must have received the instrument of referral on or prior to the occasion of the professional service to which the referral relates.

The exceptions to the requirements in paragraph above are that

(a) sub-paragraphs (i),(ii) and (iii) do not apply to

- a pre-anaesthesia consultation by a specialist anaesthetist (items 16710-17625);

(b) sub-paragraphs (ii) and (iii) do not apply to

- a referral generated during an episode of hospital treatment, for a privately insured service provided or arranged by that hospital, where the hospital records provide evidence of a referral (including the referring practitioner's signature); or
- an emergency where the referring practitioner or the specialist or the consultant physician was of the opinion that the service be rendered as quickly as possible; and

(c) sub-paragraph (iii) does not apply to instances where a written referral was completed by a referring practitioner but was lost, stolen or destroyed.

Examination by Specialist Anaesthetists

A referral is not required in the case of pre-anaesthesia consultation items 17610-17625. However, for benefits to be payable at the specialist rate for consultations, other than pre-anaesthesia consultations by specialist anaesthetists (items 17640 -17655) a referral is required.

Who can Refer?

The general practitioner is regarded as the primary source of referrals. Cross-referrals between specialists and/or consultant physicians should usually occur in consultation with the patient's general practitioner.

[136] Sourced from http://www.health.gov.au/internet/mbsonline/publishing.nsf/Content/Downloads-200905 (Accessed 19 May 2009)

Referrals are to be made as follows:-

(a) to a recognised consultant physician -

(i) by another medical practitioner; or

(ii) by an approved dental practitioner [1] (oral surgeon), where the referral arises out of a dental service;

(b) to a recognised specialist -

(i) by another medical practitioner; or

(ii) by a registered dental practitioner [2], where the referral arises out of a dental service; or

(iii) by a registered optometrist where the specialist is an ophthalmologist.

[1] See paragraph OB.1 for the definition of an approved dental practitioner.

[2] A registered dental practitioner is a dentist registered with the Dental Board of the State or Territory where s/he practices. A registered dental practitioner may or may not be an approved dental practitioner.

Billing

Routine Referrals

In addition to providing the usual information required to be shown on accounts, receipts or assignment forms, specialists and consultant physicians must provide the following details (unless there are special circumstances as indicated in paragraph below):-

- - name and either practice address or provider number of the referring practitioner;
- - date of referral; and
- - period of referral (when other than for 12 months) expressed in months, eg "3", "6" or "18" months, or "indefinitely" should be shown.

Special Circumstances

(i) Lost, stolen or destroyed referrals.

If a referral has been made but the letter or note of referral has been lost, stolen or destroyed, benefits will be payable at the referred rate if the account, receipt or the assignment form shows the name of the referring medical practitioner, the practice address or provider number of the referring practitioner (if either of these are known to the consultant physician or specialist) and the words 'Lost referral'. This provision only applies to the initial attendance. For subsequent attendances to attract Medicare benefits at the referred rate a duplicate or replacement letter of referral must be obtained by the specialist or the consultant physician.

(ii) Emergencies

If the referral occurred in an emergency, benefit will be payable at the referred rate if the account, receipt or assignment form is endorsed 'Emergency referral'. This provision only applies to the initial attendance. For subsequent attendances to attract Medicare benefits at the referred rate the specialist/consultant physician must obtain a letter of referral.

(iii) Hospital referrals.

Private Patients - Where a referral is generated during an episode of hospital treatment for a privately insured service provided or arranged by that hospital, benefits will be payable at the referred rate if the account, receipt or assignment form is endorsed 'Referral within (name of hospital)' and the patient's hospital records show evidence of the referral (including the referring practitioner's signature). However, in other instances where a medical practitioner within a hospital is involved in referring a patient (e.g. to a specialist or a consultant physician in private rooms) the normal referral arrangements apply, including the requirement for a referral letter or note and its retention by the specialist or the consultant physician billing for the service.

Public Hospital Patients

Under the 2003-2008 Australian Health Care Agreements, State and Territory Governments were responsible for the provision of public hospital services to eligible persons in accordance with the terms and conditions of the Agreements. On expiry of the Agreements on 30 June 2008, the Minister for Health and Ageing made a series of determinations after an amendment to the Health Care (Appropriation) Act

1998. These determinations, known as 2008-09 Health Care Determinations, effectively rolled over the terms and conditions of the 2003-08 Agreements to 30 June 2009.

Bulk Billing

Bulk billing assignment forms should show the same information as detailed above. However, faster processing of the claim will be facilitated where the provider number (rather than the practice address) of the referring practitioner is shown.

Period for which Referral is Valid

The referral is valid for the period specified in the referral which is taken to commence on the date of the specialist's or consultant physician's first service covered by that referral.

Specialist Referrals

Where a referral originates from a specialist or a consultant physician, the referral is valid for 3 months, except where the referred patient is an admitted patient. For admitted patients, the referral is valid for 3 months or the duration of the admission whichever is the longer.

As it is expected that the patient's general practitioner will be kept informed of the patient's progress, a referral from a specialist or a consultant physician must include the name of the patient's general practitioners and/or practice. Where a patient is unable or unwilling to nominate a general practitioner or practice this must be stated in the referral.

Referrals by other Practitioners

Where the referral originates from a practitioner other than those listed in *Specialist Referrals*, the referral is valid for a period of 12 months, unless the referring practitioner indicates that the referral is for a period more or less than 12 months (eg. 3, 6 or 18 months or valid indefinitely). Referrals for longer than 12 months should only be used where the patient's clinical condition requires continuing care and management of a specialist or a consultant physician for a specific condition or specific conditions.

Definition of a Single Course of Treatment

A single course of treatment involves an initial attendance by a specialist or consultant physician and the continuing management/treatment up to the stage where the patient is referred back to the care of the referring practitioner. It also includes any subsequent review of the patient's condition by the specialist or the consultant physician that may be necessary. Such a review may be initiated by either the referring practitioner or the specialist/consultant physician.

The presentation of an unrelated illness, requiring the referral of the patient to the specialist's or the consultant physician's care would initiate a new course of treatment in which case a new referral would be required.

The receipt by a specialist or consultant physician of a new referral following the expiration of a previous referral for the same condition(s) does not necessarily indicate the commencement of a new course of treatment involving the itemisation of an initial consultation. In the continuing management/treatment situation the new referral is to facilitate the payment of benefits at the specialist or the consultant physician referred rates rather than the unreferred rates.

However, where the referring practitioner:-

(a) deems it necessary for the patient's condition to be reviewed; and

(b) the patient is seen by the specialist or the consultant physician outside the currency of the last referral; and

(c) the patient was last seen by the specialist or the consultant physician more than 9 months earlier

the attendance following the new referral initiates a new course of treatment for which Medicare benefit would be payable at the initial consultation rates.

Retention of Referral Letters

The prima facie evidence that a valid referral exists is the provision of the referral particulars on the specialist's or the consultant physician's account.

A specialist or a consultant physician is required to retain the instrument of referral (and a hospital is required to retain the patient's hospital records which show evidence of a referral) for 18 months from the date the service was rendered.

A specialist or a consultant physician is required, if requested by the Managing Director of Medicare Australia, to produce to a Medical Adviser, who is an officer of Medicare Australia, the instrument of referral within seven days after the request is received. Where the referral originates in an emergency situation or in a hospital, the specialist or consultant physician is required to produce such information as is in his or her possession or control relating to whether the patient was so treated.

Attendance for Issuing of a Referral

Medicare benefit is attracted for an attendance on a patient even where the attendance is solely for the purpose of issuing a referral letter or note. However, if a medical practitioner issues a referral without an attendance on the patient, no benefit is payable for any charge raised for issuing the referral.

Locum-tenens Arrangements

It should be noted that where a non-specialist medical practitioner acts as a locum-tenens for a specialist or consultant physician, or where a specialist acts as a locum-tenens for a consultant physician, Medicare benefit is only payable at the level appropriate for the particular locum-tenens, eg, general practitioner level for a general practitioner locum-tenens and specialist level for a referred service rendered by a specialist locum tenens.

Medicare benefits are not payable where a practitioner is not eligible to provide services attracting Medicare benefits acts as a locum-tenens for any practitioner who is eligible to provide services attracting Medicare benefits.

Fresh referrals are not required for locum-tenens acting according to accepted medical practice for the principal of a practice ie referrals to the latter are accepted as applying to the former and benefit is not payable at the initial attendance rate for an attendance by a locum-tenens if the principal has already performed an initial attendance in respect of the particular instrument of referral.

Self Referral

Medical practitioners may refer themselves to consultant physicians and specialists and Medicare benefits are payable at referred rates.

Referrals by Dentists or Optometrists

For Medicare benefit purposes, a referral may be made to

(i) a recognised specialist:

(a) by a registered dental practitioner, where the referral arises from a dental service; or

(b) by a registered optometrist where the specialist is an ophthalmologist; or

(ii) a consultant physician, by an approved dental practitioner (oral surgeon), where the referral arises out of a dental service.

In any other circumstances (i.e. a referral to a consultant physician by a dentist, other than an approved oral surgeon, or an optometrist, or a referral by an optometrist to a specialist other than a specialist ophthalmologist), it is not a valid referral. Any resulting consultant physician or specialist attendances will attract Medicare benefits at unreferred rates.

Registered dentists and registered optometrists may refer themselves to specialists in accordance with the criteria above, and Medicare benefits are payable at the levels which apply to their referred patients.

Appendix F Standards Australia on Referrals

The following is extracted from: **Implementation of Health Level Seven (HL7) Version 2.3.1. Part 6: Referral and discharge summary. AS 4700.6 – 2004. page 9**

Referral is the communication, with the intention of initiating care transfer, from the provider making the referral to the receiver.

NOTE: The essential components of referral are the intent and facilitation of transferring patient care in whole or in part from one health care provider or organization to another provider or organization. Self referral is also possible: a person, the subject of care, may be the referrer or the referred-to clinician. Referral is normally accompanied by clinical information to responsibly enable takeover of such care by the referred-to clinician.

Referral can take several forms most notably:

a) Request for management of a problem or provision of a service e.g. a request for an investigation, intervention, or treatment.

b) Notification of a problem with hope, expectation, or imposition of its management, e.g. a Discharge Summary in a setting which imposes care responsibility on the recipient.

The common factors in all of these are a communication whose intent is the transfer of care.

Appendix G WA DoH Referral Requirements

Referral Form – Content Required

Specialist Outpatient Referral Content

Referrals to specialist outpatient services must be in writing (eg. letter, facsimile, electronic file) and include the following information:

- The patient's full name (or alias) and where appropriate (eg. for a minor) the name of the parent or caregiver.
- The patient's address.
- The patient's telephone number (home and alternative).
- The patient's date of birth.
- Next of Kin / carer / guardian / local contact for paediatric referrals.
- Hospital Unit Medical Record Number (UMRN) and Medicare number (if known).
- Past history including details of previous treatment, investigations including x-rays (photocopied results and films where appropriate). Include details of facility where previous service was provided, including date.
- Presenting symptoms and their duration and details of any associated medical conditions which may affect the presenting condition, or its treatment (eg. diabetes).
- Physical findings.
- Details of current medications and any drug allergies (including reaction to anaesthetics).
- Patients being re-referred with the same problem should have a letter containing the relevant information directed to the original consultant who will arrange an appropriate follow-up appointment at a routine clinic.
- GP diagnosis and categorisation with reference to Clinical Priority Access Criteria (CPAC) where available.
- Date of referral, details of referring doctor and GP details if different from the referring doctor and the name of the doctors/ clinic to which the patient is being referred.
- Interpreter requirements.

This information should be detailed routinely in all referrals, but often is not included. If these data are provided, valuable clinical time can be used seeing patients rather than attempting to gather information that was readily available to the referring doctor. Referrals which do not contain sufficient information to allow accurate grading of the priority of the referral will be returned to the referring doctor.

Additional Referral Information

For more information about the additional referral information, please click here: http://www.gp.health.wa.gov.au/CPAC/referral/additionalinfo.cfm

Note: this page contains additional information that is required for referrals related to the following:

- Gastroenterology
- Geriatric Medicine
- Haematology
- Infectious Diseases
- Oncology
- Pain Management
- Thoracic Surgery

For each of the above there are links to documents that outlines the additional information required. The following, for Gastroenterology is provided as an example:

> *If referring to Hepatitis Department for Hepatitis C screening or management, include the following:*
>
> - *Likely date and mode of transmission*
> - *Alcohol consumption (std drinks per week)*
> - *Current medications*
> - *Other drugs (include IDU)*
> - *Symptoms and signs of Hepatitis including (Hx and Jaundice)*

Specialist Outpatient Referral Source

Patients can be referred to specialist outpatient services from:

- General practitioners (GPs).
- Medical practitioners within the hospital (e.g. emergency department, inpatient units).
- Medical practitioner's private rooms.
- Medical practitioners in other hospitals (transfer).
- Other health care professionals where appropriate (e.g. optometrists, dental practitioners, midwives, audiologists, Aged Care Assessment Teams (ACATs) and specialist nurses).
- Individual self-referral.

Note: the above material is sourced from
http://www.gp.health.wa.gov.au/CPAC/referral/contentrequired.cfm

Appendix H Cochrane Study on Improving Referrals

The following Cochrane review summary[137] is included as it illustrates that a range of interventions are appropriate for improving outpatient referrals from primary care to secondary care.

A Cochrane review produced in February 2008 contained no evidence relating to e-health based interventions. This means that there is an absence of research in this area, as in many areas of e-health.

The most efficacious type of intervention (with only a relatively modest effect) were combined interventions where the medical specialists (the recipients of the referrals) provided education to primary care doctors (GPs) about guidelines for referrals as embedded in a standard referral form.

Plain language summary

Are there effective methods to improve the process of referring patients to specialised care?

Patients are referred to a specialist when more specialised care is needed. It has however been shown that the process by which patients are referred could be improved. Some patients may be referred to a specialist inappropriately or not be referred when they should have, or when they were referred have unnecessary tests or procedures.

This review found 17 studies that evaluated whether educating health care professionals about referrals, changing the organisation or system of referrals, and changing the fees or payments for referrals, could improve the referral process.

Education: The referral process will most likely improve when guidelines for referral are distributed with standard referral forms and when the health care professionals who are the consultants are involved in teaching about referring. But simply distributing guidelines and providing health care professionals with feedback about how they are referring may not improve the process.

Organisation: There is little evidence about organisational changes. But providing a second opinion before referring, or enhancing the services provided before a referral (e.g. providing access to a physiotherapist) may improve the referral process.

Financial: There is not enough evidence to draw firm conclusions about financial changes. Financial changes can change the number of referrals but it is not known whether they improve the quality or appropriateness of referrals.

Abstract

Interventions to improve outpatient referrals from primary care to secondary care

Ayub Akbari[1], Alain Mayhew[2], Manal Alawi Al-Alawi[3], Jeremy Grimshaw[4], Ron Winkens[5], Elizabeth Glidewell[6], Chanie Pritchard[7], Ruth Thomas[8], Cynthia Fraser[6]

[137] See http://mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD005471/frame.html (Accessed 1 June 2009)

[1]Department of Medicine/Division of Nephrology, Kidney Research Center/University of Ottawa, Ottawa, Canada. [2]Institute of Population Health, University of Ottawa, Ottawa, Canada. [3]Manama, Bahrain. [4]Director, Clinical Epidemiology Programme, Ottawa Health Research Institute, Ottawa, Canada. [5]Diagnostic Centre Maastricht, Academic Hospital Maastricht, Maastricht, Netherlands. [6]Health Services Research Unit, University of Aberdeen, Aberdeen, UK. [7]Sage Media, Woodlawn, Canada. [8]Centre for Healthcare Randomised Trials (CHaRT), Health Services Research Unit, University of Aberdeen, Aberdeen, UK

Cochrane Database of Systematic Reviews, Issue 2, 2009

This record should be cited as: Akbari A, Mayhew A, Al-Alawi MA, Grimshaw J, Winkens R, Glidewell E, Pritchard C, Thomas R, Fraser C. Interventions to improve outpatient referrals from primary care to secondary care. Cochrane Database of Systematic Reviews 2008, Issue 4. Art. No.: CD005471. DOI: 10.1002/14651858.CD005471.pub2.

Background

The primary care specialist interface is a key organisational feature of many health care systems. Patients are referred to specialist care when investigation or therapeutic options are exhausted in primary care and more specialised care is needed. Referral has considerable implications for patients, the health care system and health care costs. There is considerable evidence that the referral processes can be improved.

Objectives

To estimate the effectiveness and efficiency of interventions to change outpatient referral rates or improve outpatient referral appropriateness.

Search strategy

We conducted electronic searches of the Cochrane Effective Practice and Organisation of Care (EPOC) group specialised register (developed through extensive searches of MEDLINE, EMBASE, Healthstar and the Cochrane Library) (February 2002) and the National Research Register. Updated searches were conducted in MEDLINE and the EPOC specialised register up to October 2007.

Selection criteria

Randomised controlled trials, controlled clinical trials, controlled before and after studies and interrupted time series of interventions to change or improve outpatient referrals. Participants were primary care physicians. The outcomes were objectively measured provider performance or health outcomes.

Data collection and analysis

A minimum of two reviewers independently extracted data and assessed study quality.

Main results

Seventeen studies involving 23 separate comparisons were included. Nine studies (14 comparisons) evaluated professional educational interventions. Ineffective strategies included: passive dissemination of local referral guidelines (two studies), feedback of referral rates (one study) and discussion with an independent medical adviser (one study). Generally effective strategies included dissemination of guidelines with structured referral sheets (four out of five studies) and involvement of consultants in

educational activities (two out of three studies). Four studies evaluated organisational interventions (patient management by family physicians compared to general internists, attachment of a physiotherapist to general practices, a new slot system for referrals and requiring a second 'in-house' opinion prior to referral), all of which were effective. Four studies (five comparisons) evaluated financial interventions. One study evaluating change from a capitation based to mixed capitation and fee-for-service system and from a fee-for-service to a capitation based system (with an element of risk sharing for secondary care services) observed a reduction in referral rates. Modest reductions in referral rates of uncertain significance were observed following the introduction of the general practice fund-holding scheme in the United Kingdom (UK). One study evaluating the effect of providing access to private specialists demonstrated an increase in the proportion of patients referred to specialist services but no overall effect on referral rates.

Authors' conclusions

There are a limited number of rigorous evaluations to base policy on. Active local educational interventions involving secondary care specialists and structured referral sheets are the only interventions shown to impact on referral rates based on current evidence. The effects of 'in-house' second opinion and other intermediate primary care based alternatives to outpatient referral appear promising.

Appendix I Reducing Poor Referrals

Recently published in the international journal QJM[138], the following study provides evidence that proves the use of care pathways can reduce poor referrals. The abstract is reproduced below, and following that the media release from the providers of the tool used.

Renal quality outcomes framework and eGFR: impact on secondary care

L.A. Phillips, K.L. Donovan and A.O. Phillips

From the Institute of Nephrology, Cardiff University School of Medicine, Heath Park, Cardiff, CF14 4XN, UK

Background: The prognostic significance of impaired renal function has driven the need for its early recognition and the widespread introduction of the estimated glomerular filtration rate (eGFR) reporting, and the incorporation of Chronic Kidney Disease (CKD) in the revised Quality Outcomes Framework (QOF) of the General Medical Services (GMS) contract in the UK.

Aim: To characterize the effect of these changes on referral numbers and appropriateness to a nephrology service, and the impact of a newly introduced Map of Medicine®-based patient care pathway coupled to the systematic screening of all new referrals.

Methods: The study was carried out within a single NHS Trust covering five primary health care Local Health Boards and a population of 560 000.

Results: Introduction of eGFR reporting and CKD QOF domains was associated with a rapid 61% increase in new patient referral, and an increase in the mean age of the patients at referral from 63.0 ± 18.1 to 69.1 ± 18.5. The referrals did not correlate with the QOF reported prevalence of CKD. Systematic screening of new referrals demonstrated 36% to be either inappropriate or inadequate in terms of clinical information supplied. Introduction of the renal patient care pathway was associated with a fall in both the number of inadequate and total new referrals received. Overall 62% of all primary care practices registered with the Map of Medicine® and these sent a higher proportion of appropriate referrals and were less likely to generate referrals with inadequate information. The initiative also enabled managed discharges from secondary to primary care settings, freeing up outpatient capacity.

Conclusion: The study describes the impact of the introduction eGFR reporting and revision of the GMS contract with Renal QOF, on patient referrals to a nephrology service. In addition, we provide evidence that a new management pathway has helped to regulate and proactively manage the increased demand within the current resources.

[138] See http://qjmed.oxfordjournals.org/cgi/content/abstract/hcp030 (Accessed 11 June 2009)

Media Release from Map of Medicine

Map of Medicine use cuts poor referrals

08 Jun 2009

Use of Map of Medicine in primary care has led to a significant reduction in inadequate referrals from GPs, according to a new study.

Doctors from the Institute of Nephrology in Cardiff looked at the impact of a patient care pathway for chronic kidney disease on Map of Medicine.

They found use of the knowledge management tool cut inadequate referrals by almost 50% and also led to a slight reduction in overall referrals.

The researchers studied referrals for chronic kidney disease (CKD) from GPs in five local health boards covering 550,000 people in South Wales following the inclusion of CKD in the Quality and Outcomes Framework in 2006.

The doctors reported that there was an abrupt increase in referrals from the inclusion of CKD in the QoF with an overall increase of 61% across 30 months since April 2006.

In November 2007, a renal patient pathway was launched on Map of Medicine to provide guidance on referral together with the minimal clinical data required to prioritise an outpatient appointment. The pathway also provides support to enable discharge of patients to primary care with guidelines on future monitoring and re-referral.

The study, published in QJM, reports that before the launch of the patient pathway initiative 23% of referrals were classified as having inadequate information, a figure which fell to around 14% of referrals following the introduction of the pathway. The total number of referrals also fell following introduction of the pathway.

The researchers report that 62% of practices were registered with Map of Medicine and found that the local health board with the lowest QoF reported prevalence of renal disease was the one with the lowest number of practices registered to use the knowledge management tool.

The researchers add: “Across the whole trust referrals from the practices which were registered with the Map were more likely to require follow up in the nephrology clinic suggesting a higher proportion of appropriate referrals. In addition practices registered with the Map were less likely to generate referrals with inadequate information.”

The study reports that the structured care pathway posted on Map of medicine was also associated with earlier discharge with the number of outpatient visits cut from an average of just over four to one and a half.

Appendix J The PIP E-Health Incentive

The PIP e-Health Incentive was announced as part of the Australian Government's 2008-09 Budget. It will commence from August 2009. The incentive aims to encourage use of electronic health systems in practices that participate in the PIP program. The PIP e-Health Incentive will replace the existing PIP IM/IT Incentive and the PIP Electronic Decision Support Incentive, which commenced in August 2008. The PIP IM/IT Incentive will cease from August 2009.

This new program aims to encourage general practices to move to using Electronic Decision Support Systems through consolidating the PIP IM/IT and Electronic Decision Support Incentives. The e-Health Incentive would be incorporated into the PIP payments scheme with a payment level of $6.50 per Standardised Whole Patient Equivalent (SWPE). Payments will be capped at $12,500 per practice per quarter, up to a maximum of $50,000 per year.

The PIP is administered by Medicare Australia[139] on behalf of DoHA.

One of the elements of the incentive is related to NEHTA and a secure messaging requirement. As technology continues to emerge, practices will be able to:[140]

- Securely exchange information such as discharge summaries, pathology reports and specialist reports electronically.
- Send electronic referrals, pathology orders and participate in electronic prescribing.

[139] See http://www.medicareaustralia.gov.au/provider/incentives/pip/index.jsp (Accessed 23 May 2009)

[140] See http://www.nehta.gov.au/pip-vendors (Accessed 23 May 2009)

Appendix K Survey for Government Health Departments

The following questions were asked of the State, Territory and Australian Government Health Departments. Responses were managed by the respective CIOs (or delegate), and, in the case of DoHA, by the E-Health Branch Head.

1. What is your understanding of the legislative, funding and medico-legal aspects relating to referrals? And in particular those of relevance to your organisation.
2. For your organisation, please describe the methods used to create, send and receive referrals (including, but not limited to those using ICT).
3. Please provide data on quantities and proportions (estimates are OK) related to referrals (e.g. where from, qty in-out, of electronic compared to paper-based, etc.)
4. Please describe any policies your organisation has related to referrals.
5. What policy-related initiatives (not specifically ICT related) are underway or planned? Please describe their focus, expected benefits and outcomes (e.g. changing referral patterns, safety and quality, local partnering, etc.).
6. What guidelines and standards are used by your organisation related to referrals? Please provide sample forms, if possible.
7. What trends do you see (or expect) regarding referrals related to your organisation?
8. What barriers do you see for uptake of standardisation and ICT support for referrals?
9. a. What initiatives are underway or planned in your organisation that relate specifically to supporting and/or improving the referral process, whether using ICT or not?
9. b. What standards are being used?
9. c. What infrastructure is being used? e.g. directories, messaging services, etc.
10. What aspects of referrals for your organisation highlight the differences between the public and private contexts?

Appendix L Organisations and People Consulted

ACT Health – Mr Owen Smalley; Mr Ian Bull

NSW Health – Mr Mike Rillstone; Mr Greg Wells

NT DHF – Mr Stephen Moo; Mr Robert Whitehead; Ms Kristine Luke; Mr Matthew Antcliff

Queensland Health – Mr Ray Brown; Ms Marija Mamic; Mr Eugene McAteer; Ms Carolyon Young; Mr Sean Lowry

SA Health – Mr David Johnston; Mr Roger Milton; Mr Peter Mason; Ms Janice Fletcher

Tasmania DHHS – Mr Max Gentle; Mr Chris Showell

Vic DHS – Mr Peter Williams

WA Health – Mr Richard McFadden; Mr Gopal Warrier

DoHA – *E-Health:* Mr Rob Cameron; Ms Janine Bevan; Dr Christopher Mount; *Aged and Community Care:* Ms Carolyn Brown, Ms Alison Libby; Ms Tanya Higgins; Mr Arthur Gidis; Ms Jenny Bartley; Mr Terry Nyeman; Ms Esther Manteit; Ms Moira Campbell; Ms Michelle Roffey; Ms Carey Lonsdale; *Allied Health:* Mr Peter Woodley; Ms Jenny Woodhouse

Medicare Australia – Dr David Field, Mr Mark Young

RACGP – Ms Teri Snowden

AMA – Ms Wendy Lorincz; Ms Michelle Grybaitis

Standards Australia – Ms Heather Grain

Ramsay Health Care – Mr James Theideman; Mr Mick Campbell; Mr Richard Jackson; Ms Carmel Monaghan

GPpartners – Mr Brett Silvester; Mr Mark Gibson

GP Victoria – Dr Ross Nable; Mr Paul Macdonald

Australasian Physiotherapy Association – Mr Jonathan Kluger

Australian Psychological Society – Mr David Stokes

Australian Dental Association – Mr Robert Boyd-Boland

Aged and Community Services Australia – Mr Greg Mundy

Aged Care Association Australia – Mr Rod Young

Aged Care Industry IT Council – Mr Suri Ramanathan

Optometrists Association Australia – Mr Joe Chakman

NHHRC – Dr Mukesh Haikerwal

ACSQHC – Prof Chris Baggoley; Mr Neville Board

National Primary Health Care Strategy – Dr Tony Hobbs

BEACH – Dr Graeme Miller

MDA National – Dr Sara Bird

ICT Suppliers:

MSIA – Dr Vince McCauley

Medical Objects – Dr Andrew McIntyre

Best Practice – Dr Frank Pyefinch

Argus – Mr Ross Davey

Genie – Dr Paul Carr

HCN – Dr Andrew Magennis

HealthLink – Mr Tom Bowden

Monkey Software – Mr Chris Monks

Sunix – Ms Florence Sun

Software of Excellence – details to be provided if required.

Individuals:

Dr Jon Douglas (a general physician in private practice, regarding referrals to him from GPs and other specialists)

Dr Beres Wenck (a practicing GP who, amongst other roles, is a the advisory board of MDA National, regarding medical-legal and medical indemnity insurance matters)

Dr John Aloizois (a practicing GP who, amongst other roles, is Chair of QIP, regarding accreditation and quality)

Dr Tony Arklay (a GP and occupational health physician regarding workers' compensation and related matters)

Appendix M Key Project Information

Authority	Contract dated 6 January 2009; Variation dated 27 July 2009
Project Governance Committee	▪ Mr Paul Williams, NEHTA Head of Solution Development ▪ Mr Sean Holmes, Program Manager – Continuity of Care ▪ Dr Mukesh Haikerwal, NEHTA Clinical Lead
Project Reference Group	▪ NEHTA Continuity of Care Reference Group ▪ NEHTA Clinical Leads ▪ Others as required
Valintus Consultant Team	▪ Mr Jeff Parker, Lead Consultant and Project Manager ▪ Mr Roger Hewitt, E-Health Specialist Consultant ▪ Dr John Bennett, Clinical Informatics Consultant ▪ Ms Dimity Holliday, E-Health Consultant

Project Approach