

Strategic Framework for Improved Information Management through the use of Information Technology in General Practice - *A collaborative AMA/RACGP paper*

1997

Mission

To improve the health and quality of life of the Australian community through the systematic introduction of management of information in General Practice and between General Practice and other sectors of the health industry.

Vision

To ensure that the majority of General Practitioners are at ease with the use of information technology for clinical and administrative purposes by December 1999; and that the technological infrastructure enables nationally consistent linkages and uniform standards throughout the health industry.

1. Introduction

1.1. Role of General Practice

- 1.1.1. The general practitioner coordinates continuing health care over time, as distinct from episodic care for specific interventions [actdgp96]. Consequently, the general practitioner is best placed to recognise and manage ongoing medical and social problems and health promotion activities as well as to attend to the patient's presenting illness. Other responsibilities undertaken by the general practitioner, in addition to direct patient care, include participation in continuing medical education and teaching, involvement in population health programs (eg immunisation, infectious disease control), research (eg diabetes, cardiovascular disease), completion of an increasing amount of documentation according to specific format (medico-legal and bureaucratic), liaison with other health professionals (in institutions and the community) and health service planning [nhs92].
- 1.1.2. A high quality information management/information technology (IM/IT) system should provide the support necessary for the efficient provision of these responsibilities and would be integral to realising the full potential for health delivery and research in General Practice.
- 1.1.3. The directions of current health policy combined with the emergence of vastly improved electronic communications and record-handling facilities, provide general practitioners with a unique opportunity to re-establish their pivotal role within the health industry, and governments with the means to establish a basis for data collection at the source of the doctor-patient encounter.

1.2. Health Policy

- 1.2.1. Population health is defined as "the study of the health of whole communities and groups". Its main aim is to reduce illness and handicap among populations at risk, including those already afflicted with disease. Very often, the myriad of policy decisions influencing the health of these groups are not informed by supporting scientific evidence. A balanced approach to health policy requires a general understanding of the current state of knowledge of the determinants of illness and disease and of the

effectiveness of interventions and modern therapy [hhd94]. A national collection of population health data, underpinned by common standards, is essential for the effective implementation of this policy.

1.2.2. Australia's health policies also reflect a primary care/population health focus with General Practice at the centre of the reform process. Before the 1996 election, the Coalition's health policy platform stated "General Practice is one of the most important elements of health care delivery in Australia" and "GPs form the cornerstone of primary health care....". Since then, the Commonwealth Minister for Health and Family Services, Dr Wooldridge, has used several public forums to challenge GPs to adopt a leading role in health system reform. On 28 February 1997 at the National Divisions Forum, he said "General Practice has the potential for power within the health system and that change is happening now".

1.2.3. An effective and integrated system of IM/IT in the health sector, focused on General Practice, has the potential to place GPs at the centre of care co-ordination, indispensable to a population health model.

1.3. Information Management/Information Technology in General Practice

1.3.1. Information technologies have the potential to transform the way health care is provided. Poor communication of health information is the primary reason for duplication, and consequent waste, of health resources.

1.3.2. This IM/IT Strategic Framework for the implementation of Information Management/Information Technology in General Practice is based on the recognition that the general practitioner is central to the coordination of care and, consequently, able to be pivotal in the collection and dissemination of patient data through the use of an electronic record. The Plan envisages extensive interconnectivity between General Practice and all other sectors of health care. The technologies will support new health care patterns of integration between agencies.

1.3.3. A national focus on General Practice IM/IT is justified on the basis that:

- GPs are information managers;
- there are diverse information flows to and from General Practice;
- there is an explosion in available and necessary health information resources and tools;
- there are multiple initiatives involving IM/IT systems in General Practice; and
- there is a lack of clear co-ordination and direction in IM/IT systems in the health environment [amaracgp96].

1.3.4. To date, there has not been a widespread uptake of information technologies in general practice. Despite a considerable amount of IM/IT development work carried out in General Practice over the past few years, it still has a low usage of IM/IT. A survey in 1994 indicated that 45% of practices were using computers for financial management and accounting functions and that only 9.2% reported the use of computerised systems [racgp94]. DHFS has recently commissioned a consultancy to survey current usage.

1.3.5. These figures deviate markedly from the situation in Britain and some other European countries, such as the Netherlands and Belgium, where more than 90% of General Practices use computers and over 80% use

clinical software. The level of general practice computerisation in other developed countries varies, with New Zealand, for example, having a much higher level of clinical computing than Australia, and the US having about the same as Australia.

- 1.3.6. A strategic approach to implementation is based on a belief that Australian general practitioners will purchase and use computers (which are a deductible business expense for taxation purposes) when the technology generates direct benefits for the care they give their patients at a price that is worthwhile as a business investment. General practitioners will not consider the investment sufficient if it merely provides benefits for governments, other funding agents, researchers, planners and other sectors of the health system such as hospitals [actdgp96] The *AMA/RACGP IM/IT Strategic Framework* envisages the provision of incentives from governments to encourage initial uptake of IM/IT in General Practice.
- 1.3.7. The main reasons for the slow uptake of computerisation in General Practice are:
 - lack of financial and professional incentives to encourage general practitioners to computerise, leading to a sluggish market which inhibits specific software development;
 - lack of knowledge among general practitioners about the benefits and costs of IT/IM; and
 - fragmentation of government and industry activities leading to lack of coordinated effort in establishing national standards.
- 1.3.8. The lack of recognised national standards and protocols for data content, message formats, transmission and sharing of electronic data is a significant barrier to systematic and integrated implementation within a secure national network. Issues involved include adoption of uniform coding, standards and protocols for messaging and encryption, the development of a “meta-record” and “medical record agent”, development of a national minimum data dictionary (AIHW), development of a national data model (AIHW), ownership of data and authorisation for access.
- 1.3.9. There are some key challenges for General Practice:
 - acknowledgment that practice reorganisation is necessary to optimise the benefits of IM/IT use;
 - balancing the demands of advanced and novice technology users;
 - ensuring user-centred functionality and usability become key design criteria for a GP information system;
 - maximising functionality of IT while minimising overall expense in order to demonstrate a positive cost-benefit in general practice;
 - maintaining an ongoing research effort to monitor and evaluate the effect of IM/IT;
 - recognising the limitations of technology-based solutions in pilot studies because of the risks from rapid technological change; and
 - flexibility to adapt to emerging advances in technology.

1.3.10. The Commonwealth Government has initiated three major programs which are conducive to encouraging general practitioner uptake of IM/IT. They are Outcomes Based Funding for Divisions, Co-ordinated Care Trials and the newly announced Immunisation Program. The efficiency of all programs would be enhanced if participating general practitioners were assisted to computerise in order to collect and transmit data electronically. Here is a unique opportunity for the Department of Health and Family Services (DHFS) to maximise the effectiveness of the three programs and, at the same time, raise the level of computerisation in General Practice.

1.4. Co-ordination of current activities

1.4.1. Implementation of the IM/IT Strategic Framework is premised on the fact that a range of activities is already underway. It will be undertaken in consultation and cooperation with existing bodies and, where possible, through existing national structures.

1.4.2. Standards Australia provides a forum for all industry stakeholders to concentrate effort in this area. Work is progressing on Version 3 of HL7 (Health Level 7) standard for electronic data exchange in health care environments. Standards Australia has received commendation for the publication of AS4400, the Australian standard for *Personal Privacy Protection in Health Care Information Systems* - a standard which is unique in the world. This standard is consistent with the information privacy principles in the Privacy Act 1988 and has the approval of the Privacy Commissioner. Other work is progressing on standards for pathology and radiology messaging, electronic prescriptions and public key access technologies.

1.4.3. In recent years there have been substantial developments of national health information in a number of health areas. In the public sector the major developments, such as the National Health Data Dictionary, have been through the structure and process of the National Health Information Agreement (NHIA).

1.4.4. The NHIA represents the Commonwealth, State and Territory health authorities, the Australian Bureau of Statistics and the Australian Institute of Health and Welfare. It operates under the auspices of the Australian health Ministers' Advisory Council. The NHIA, managed by senior representatives of all signatories through the National Health Information Management Group (NHIMG), provides an appropriate mechanism for broad public sector involvement.

2. Background

2.1. In May 1996 a *Strategic Plan for General Practice 1996-99* was endorsed as a three year blueprint for action in General Practice by the two major representative General Practice organisations, the Australian Medical Association (AMA) and the Royal Australian College of General Practitioners (RACGP).

2.2. The RACGP and the AMA, in collaboration with the Information Management Strategy Group (an advisory group to the Department of Health and Family Services) and other stakeholders, have taken Objective B3 of the Strategic Plan (i.e. *Promote and expand information management-information technology in General Practice*) and have developed this document to

provide an operational framework for the implementation of a coordinated system of IM/IT in General Practice.

3. Principles

3.1. The following set of principles gives emphasis to aspects of the health system which have the potential for greatest benefit from the introduction of IM/IT in General Practice.

A well designed Information Management/ Information Technology system in General Practice:

- ensures IM/IT in General Practice is consistent with, and supports, the policy directions of the wider health system and enables effective integration with other parts of the health and community services sector;
- identifies and documents the information needed for General Practice, who needs it and how it should be collected;
- recognises the importance of appropriate incentives for General Practice;
- improves the quality and efficiency of health care delivery through accurate collection and assessment of evidence based outcomes;
- protects the privacy and confidentiality of all patient and practitioner records through consent and physical security measures;
- ensures control over access to information contained in electronic practice records;
- facilitates the sharing of high quality patient-focused health information between general practitioners, other health providers and health sector interests in support of individual patient health care and health care system management, education and research;
- analyses current information management activities with the goal of fostering those that are successful, examining those that failed and recognising barriers to success;
- provides benefits for general practitioners, enhances their working environment and meets their needs;
- provides specific measures to support rural and remote General Practice;
- provides a comprehensive education program for practitioners and patients and a communication strategy for all stakeholders;
- supports health system research and planning, with particular emphasis on primary care;
- ensures funding models for health care provision reflect the importance of information management in supporting high quality care; and
- complies with agreed guidelines in respect of information technology product

4. Expected benefits

The benefits of General Practice computerisation are many, including:

4.1. Quality of care:

- improved quality of care through better use of quality guidelines;
- improved coordination of care, resulting from better flows between institutional and community based health care and within community care sectors;
- decreased adverse medical reactions resulting in a decrease in associated morbidity, mortality, hospital admissions and medical care required;
- improved immunisation, preventative and screening activities;

- practical application of best practice guidelines.
- 4.2. **Cost-effectiveness:**
 - Efficient investigation ordering resulting in decreased test duplication and inconvenience for patients;
 - improved practice management;
 - increased Medicare claim automation and electronic commerce.
- 4.3. **Education:**
 - improved doctor education;
 - immediate access to current decision support information;
 - improved patient education.
- 4.4. **Access to data:**
 - the ability to document practice activities, such as prescribing, consulting, referral and ordering rates for specific conditions, and to undertake a self-audit to provide feedback for use in inter- and intra-practice comparisons (Divisional or national);
 - more accurate health demographics from the community.

More detail of experience in IM/IT in General Practice is at Appendix A.

5. Key Goals

In recognising that good information is essential for delivering high quality patient care in the community and that General Practice is central to collecting and managing primary health care data, the AMA and the RACGP seek to provide a framework for accelerating the uptake of information technology in General Practice in Australia over the next three years.

Key goals are:

- adopting nationally consistent standards and codes so systems are open and fully integrated with acceptable data security,
- establishing pilots to test connectivity with other health care sectors,
- encouraging innovative approaches to improve access of rural and remote practitioners and communities to high quality services such as telemedicine and education,
- fostering the timely development of software and information resources which are affordable and of acceptable quality,
- surveying the current use of information technology in General Practice to identify the barriers to its adoption and usability,
- facilitating the adoption of clinical computer systems in General Practice through appropriate incentives and the removal of legislative or bureaucratic barriers,
- developing mechanisms for training practitioners and supplying and maintaining clinical computer systems which are accessible to all General Practitioners,
- identifying the role that Divisions of General Practice may play in the delivery of computer services and support,
- promoting the advantages of improved information management to consumers of health care services, and
- monitoring the implementation of policies and strategies through the development of indicators.

To achieve these goals, a consultative approach is proposed which recognises the stakeholders who must contribute for the successful implementation of this plan: General Practitioners and GP organisations, governments, the computing industry, consumers of health care services, agencies for standards development, academic institutions and other sectors of health care.

6. Funding options

- 6.1. The AMA/RACGP believe that, given the benefits to the health system in respect to efficiencies, planning and research, Government funding is warranted to assist in the set-up and infrastructure costs. The policy of the two organisations in this matter is that a proportion of existing funding allocated to the Better Practice Program would be more beneficial if targeted to specific projects, including the implementation of IM/IT in General Practice. Funding should assist with installation and training and ensure maintenance of income levels during a transitional period of lower activity. Additional resources to Divisions to enable IM/IT support and training should underpin the implementation process.
- 6.2. The RACGP/AMA Strategic Plan for General Practice clearly states, in Objective B2:
Preserve funding levels for current GP programs while redirecting Better Practice Payment funding into more appropriate areas.
- 6.3. Strategies underlying the above objective are:
 - Ensure the maintenance of current funding levels for GP programs;
 - Abolish the Better Practice Program but ensure retention of funds for General Practice; and
 - Redirect the total amount of funds involved (including unspent funds) into improving remuneration for GPs including fee for service rebates and other programs (including the promotion and expansion of information management/technology in General Practice).
- 6.4. For change to occur, funding should be available for
 - provision of incentives encouraging general practitioners to computerise
 - strategies relevant to rural practice
 - education and training programs
- 6.5. The AMA/RACGP believe there is potential for financing partnerships with private industry, possibly in collaboration with Governments.

7. Management

- 7.1. The Management Plan for the IM/IT Strategic Framework is designed to ensure that there is a mechanism for collaboration between practitioners, other health providers, consumers, government and industry about the ongoing implementation of information management processes and tools in General Practice.
- 7.2. The efficient management and ultimate success of the IM/IT Strategic Framework will depend on the following structure:
 - Management Group to oversee, manage and evaluate the IM/IT Strategic Framework and to provide leadership, vision and organisational skills; to coopt expert advice, form sub-committees and appoint consultants as necessary. This Group should represent the major stakeholders: AMA, RACGP, Divisions, Government, consumers and the IT Industry.

- it is recommended that the Terms of Reference and the composition of the IM/IT Strategic Framework be reviewed to encompass an advisory role to this Group.
 - a Reference Group: to comprise experts from the stakeholder group who have appropriate expertise in medicine, health systems and technology and who will be expected to monitor progress and provide timely advice and feedback to support to the implementation of the IM/IT Strategic Framework.
- 7.3. Budgetary provision for the management of this plan will be required to encompass:
- monthly meetings of the Management Group (teleconference or face-to-face);
 - quarterly meetings of the Reference Group;
 - three workshops (to December 1999), and
 - the appointment of a project manager.

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