

## The 2nd National *Health Online* Summit, Brisbane 3-4 March 2003

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### Abstract

The first conference was held in Adelaide in August 2000. The conference was an initiative of the National Health Information Management Advisory Council (NHIMAC). NHIMAC was established in 1998 by the Australian Health Ministers to advise on options to promote a nationally uniform approach to more effective information management in the health sector. The second conference was held in Brisbane in March 2003, and this paper provides an overview of the key issues addressed there.

The National *Health Online* conference aims to bring together key interest groups to discuss health information management specifically in relation to the application of information and communication technologies to health care delivery. The Australian Department of Health and Ageing, through NHIMAC, is trying to promote a collaborative approach to this issue to avoid duplication of effort and development of incompatible systems. NHIMAC provides the framework and direction for work related to information and communication technologies which ultimately aim to provide better delivery of health care and better health outcomes for all.

There are a number of NHIMAC initiatives, summarised below, which provide background to the conference.

### NHIMAC initiatives

#### **Health Online: A health information action plan for Australia**

The policy framework for the national approach to management of health information is presented in *Health Online: A Health Information Action Plan for Australia, 2nd edition* (NHIMAC, 2001a), produced by NHIMAC on behalf of the Australian Department of Health and Ageing.

The second edition of the *Health Online* Action Plan (NHIMAC, 2001a) presents the key areas which need attention in the area of electronic management of health information:

- the necessity for a national collaborative approach
- development of the legal, data protection and security frameworks necessary to facilitate electronic transfer of health information
- development of national standards for health information management and information technology
- the need for infrastructure to increase access to online health services
- training of health care workers and consumers to encourage the use of information technology
- empowering consumers to be able to access health information
- supporting clinical care with the use of electronic health records, decision support at the point of care, and telehealth
- using information to build a more effective and efficient health care system with the employment of

electronic commerce and the use of confidentialised health data for research, policy and planning purposes.

*Health Online* is meant to be a living document that will be modified and updated over time. It serves to focus the Commonwealth, State and Territory governments' thinking and activity in relation to health information management.

#### **Health information standards**

The National Health Information Standards Advisory Committee (NHISAC) was established in October 2000 under the auspices of NHIMAC as the national coordinating body for the ongoing identification of priorities for the development, coordination and implementation of health information standards on a national basis that are compatible with international standards.

Information generated in one system needs to be understood by another, wherever that system is located. Without agreed standards there would be small isolated networks within individual states and territories, within individual health facilities and even amongst individual health practitioners. Fragmented systems do not support a national health information management system and do not support linkage and communication between health professionals, health facilities and consumers.

The Standards Plan, which was produced in February 2001, provides the basis for a national strategic approach to the development of health information standards (NHISAC, 2001).

The key areas in relation to standards development are:

- structural and architectural requirements for a national approach to electronic health records
- privacy
- security and authentication
- messaging and communication
- data standards, classification and coding systems
- electronic decision support
- telehealth
- electronic prescribing.

#### **Electronic Health Records (EHRs)**

The National Electronic Health Records Taskforce was established by NHIMAC to recommend a way forward

for the development of a national approach to EHRs in Australia. In 2000 this group presented a report to Australian Health Ministers which recommends the development of a health information network for Australia, known as *HealthConnect* (NEHRT, 2000). There is now funding for research and development to see if *HealthConnect* is of sufficient value in terms of improving health care efficiency and effectiveness and has community support for national implementation. The research and development phase, which is now taking place, involves constructing the necessary building blocks for any future exchange of health information electronically. This work includes research and development in the areas of privacy, standards, infrastructure, access and consent arrangements.

Further information on *HealthConnect* is available online at: [www.healthconnect.gov.au](http://www.healthconnect.gov.au).

### Hospital Supply Chain Reform

The National Supply Chain Reform Taskforce was originally established under the auspices of NHIMAC in July 2000 to develop a whole-of-industry approach to supply chain reform issues in hospitals. An Action Plan was developed by this taskforce and was produced in January 2002. The work of the taskforce, which is now in the implementation phase, has moved under the umbrella of the Australian Health Ministers' Advisory Council (AHMAC).

The key five areas for supply chain reform are:

- interoperability
- standards development
- supplier engagement
- contract and selection processes
- performance management.

The National Action Plan is available online (NSCRT, 2001).

### Telehealth

The National Telehealth Plan for Australia and New Zealand was developed by a subcommittee of NHIMAC and was produced in January, 2002. Telehealth is a term used to describe a health delivery system that provides health-related activities at a distance between two or more locations using technology-assisted communications. The main applications for telehealth in Australia at present are:

- interactive video (eg, for clinical care or health care worker education)
- tele-imaging (eg, transmission of radiological images between locations)
- telepathology (ie, transmission of medical tests between locations).

The benefits of telehealth include:

- increased access to appropriate health services for providers and consumers in regional and remote areas
- reduced time away from work and homes for health consumers living in regional, rural and remote parts of Australia

- more efficient delivery of health services through reduced delays and costs related to transferring patients
- more efficient and effective diagnosis and treatment
- improved communication between health care providers across health care settings
- improved professional support and decreased professional isolation
- potential cost saving through support for home-based rather than institutional care
- increased online support, education and training of health care professionals.

The National Telehealth Plan is available online (NHIMAC, 2001b).

### Electronic decision support

Electronic decision support systems are essential for health practitioners and consumers to be able to access high quality evidence and knowledge on what is best practice in health care. This information can be accessed at the point of care. The National Electronic Decision Support Taskforce was established under the auspices of NHIMAC in May 2002 to provide advice on how to achieve a national coordinated approach to the development of electronic decision support systems for clinicians in Australia. The Taskforce definition is restricted to the clinical decision support areas, which cover decisions made by health practitioners (doctors, nurses, allied health practitioners) about patient diagnosis, treatment and care. Ideally, patient information used in electronic decision support systems would come from existing electronic sources such as the electronic health record. Electronic decision support systems can be applied to a number of clinical tasks such as:

- generating alerts and reminders (eg, a real time alert about a drug contraindication)
- diagnostic assistance
- therapy critiquing and planning
- agents for information retrieval (eg, software "agents" can be sent to search for and retrieve information on the Internet)
- image recognition and interpretation (automatic interpretation of x-rays).

The Taskforce report is available online (NEDST, 2002).

### 2nd National Health Online Summit

The key issues addressed at the conference cover the key themes identified by NHIMAC as important for advancing the development and implementation of a network of EHRs to improve information flow across the health sector. If EHRs were developed (currently, NHIMAC initiatives are focused on the feasibility of developing the *HealthConnect* concept), patient information would be collected electronically and safely stored and exchanged between authorised health care providers. There would need to be strict privacy safeguards and consumer consent. The advantages would

be that health care providers and consumers would be able to make informed decisions about treatment and care and hence improve health outcomes. It is also argued that there would be better coordination of care and a reduction in duplication of services. Therefore, the *Health Online* conference presented research and development regarding the potential for *HealthConnect* to develop as a national system.

Professor Richard Smallwood, Chair of NHIMAC and Chief Medical Officer of the Commonwealth of Australia, opened the conference. Professor Smallwood provided an overview and update of the key NHIMAC initiatives, which are described above. Other presentations covered issues related to standards, the building of workforce capacity, and consumer perspectives. Dr Michael Walsh (CEO of Bayside Health and Deputy Chair of the Australian Council for Safety and Quality in Health Care) highlighted the changing nature of the workforce, the workplace and work practices. He spoke of the increased specialisation of health workers and the increasing numbers of health care workers using computers. There are also changes in the place of work, with a shift to the community and home, and there are now more multi-disciplinary teams working across traditional structures. Dr Walsh presented interesting perspectives on the increasing use of machines by health care professionals.

Dr John Youngman, Chair of NHISAC, provided an overview of future plans for this committee and presented the 2003-2007 strategic plan. The five key areas for the standards committee are:

- a consumer focus (including making information and education accessible)
- safety and quality (including data quality and decision support systems)
- interoperability (a key priority area including EHRs, messaging, privacy, security, vocabulary, etc.)
- change management (including capacity building, inclusiveness and resource strategies)
- information management (including administrative issues, research and e-commerce).

In the afternoon, the workshop on *Building Workforce Capacity in Health Information* was chaired by Professor Enrico Coiera and Dr Moya Conrick. Small groups provided input regarding key enablers to improve the capacity of the health care workforce in relation to using electronic information. Professor Coiera provided some background on the development of the Australian College of Health Informatics, which was formed in 2002 with 18 fellows. The group concluded at that time that there was no national support for health informatics programs at the postgraduate level and no support for training the clinical workforce. The other concurrent workshops addressed *Ensuring consumer privacy and achieving continuity of care* and *Setting future directions for health information standards*.

The second session of panel discussions related to *Health terminologies and classifications*. Associate Professor Rosemary Roberts (Director of the National Centre for Classification in Health), Dr Richard Madden (Director of the Australian Institute of Health and Wel-

fare) and Dr Graeme Miller (Medical Director of the Family Medicine Research Centre) were the presenters. These presentations covered issues related to defining clinical terminologies and the subcategories of interface terms, reference terminology and aggregate terms or classifications. Research and development in this area is essential, as a standard terminology is needed for all input and output of EHRs. There was some discussion about the use of *SNOMED<sup>®</sup> Clinical Terms (SNOMED<sup>®</sup> CT)* as a reference terminology. Dr Miller presented some interesting insights regarding the linguistic and cultural variance between and amongst various groups of health professionals. The other concurrent workshops were on *Challenges of delivering healthcare at a distance* and *Building consumer capacity in health information*.

The second day included a presentation by Professor Bruce Barraclough, Chair of the Australian Council for Safety and Quality in Health Care. This important presentation reminded participants of the mission of *Health Online*, which is "to improve the delivery of health care and achieve better quality of care and health outcomes through effective and innovative use of health information" (NHIMAC, 2001a, p.8). In his view, the technology needs to be seen as an enabler – a means to an end, rather than an end in itself. It was emphasised that the focus for *Health Online* developments needs to be on improving the health of all Australians, for example by reducing adverse drug events.

An interesting panel discussion, which was included in the plenary session on the second day, focused entirely on empowering consumers and communities for better health. Associate Professor Meryl Walton (Faculty of Medicine at the University of Sydney) presented some challenging issues related to placing consumers on centre stage. She spoke of the need for a cultural shift. She outlined a number of potential barriers to including consumers:

- that health services operate in closed systems
- there are multiple professional cultures within health
- the nature of the doctor/patient relationship: one of paternalism or partnership?
- whether an appropriate infrastructure for involving consumers exists

Mr Mark Laffan, a health consumer representative and Sydney lawyer with extensive first hand experience with health services and health professionals, presented an interesting personal perspective. Mr Jon Kroschel, a mental health consumer consultant from The Alfred Hospital in Melbourne, presented an insightful account of examples of attitudes towards *Health Online* initiatives from his community. He stated that those who are less advantaged financially, socially and medically have a high use of health care services and do not really have easy access to computers. It is difficult for them to consider themselves empowered. This session generated a number of questions and discussion from the floor. Questions related to self-care and its lack of inclusion in the *Health Online* agenda, disclosure, and chronic care. Ms Amanda Cornwall, Project Manager for the National

Complaints and Quality Project of the NSW Health Care Complaints Commission, presented an overview of EHR schemes in Canada and Europe in light of privacy and security issues. Some of the key priorities she identified from overseas initiatives were:

- quality improvement as the primary objective for developments
- a focus on electronic processing of benefits and insurance
- access to better patient information, with an emphasis on medications in the emergency department and linkage to primary care reforms.

The panel discussion in the afternoon included presentations on clinical information systems by Ms Dianne Ayres (Assistant Director from the Clinical Systems and Strategy Unit of the NSW Department of Health), Dr Ron Tomlins (Chair of the General Practice Computing Group [GPCG]), Dr Scott Germann (Principal Clinical Consultant, SA Department of Human Services) and Dr David Barton (Medical Advisor, Diagnostics and Technology Branch, Department of Health and Ageing). Ms Ayres presented the clinical information systems framework for the NSW Department of Health. Dr Tomlins provided a comprehensive overview of initiatives from the GPCG. The concurrent workshops were on *A national approach to electronic health records* and *Knowledge to aid clinical decision making by providers and consumers*. The final panel sessions included discussion on:

- benefiting from collaborative public and private sector partnerships
- information to support policy planning, research and quality assurance
- using e-commerce better in the health sector.

Dr Ric Marshall, Manager of the Information and Performance Evaluation Unit of the Victorian Department of Human Services, presented an interesting paper on the linkage of statistical collections and the issue of de-identifying or anonymising data sets.

The structure of the two-day conference allowed for presentations in the morning and breakout sessions after lunch. The breakout sessions were either in the form of panel discussions, individual presentations or workshops.

The conference provided an opportunity for key stakeholders in both public and private sectors to discuss and review the progress of developments in information management outlined in *Health Online* (NHIMAC, 2001a).

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