Overview

The National Alliance for Primary Care Informatics (NAPCI) was recently established by primary care practitioners and informatics professionals in the USA to specify the needs of primary care practitioners in the developing national information infrastructure and to encourage the adoption of electronic health record systems (EHRs) in primary care. In this article, we will review the history and current status of NAPCI, discuss how it fits within the context of other related developments in the United States, (US) and propose the future direction of the group.

History of NAPCI

Incorporated in March 2004, NAPCI is a culmination of a four-year process started by members of the Primary Care Informatics Working Group of the American Medical Informatics Association (PCI-WG of AMIA), including Moon Mullins and John Zapp. Primary care providers believed that their informatics needs were not being met, and that care would improve if providers could begin using electronic health records that were appropriate and affordable for ambulatory practices. They proposed an alliance of the many national organisations related to primary care practice, education and research to speak with a single voice for primary care with respect to informatics in primary care.

NAPCI founding members include:

- AAP – American Academy of Pediatrics
- ACP – American College of Physicians
- AMIA – American Medical Informatics Association
- ANA – American Nurses Association
- NAPCRG – North American Primary Care Research Group
- NONPF – National Organization of Nurse Practitioner Faculties
- SGIM – Society of General Internal Medicine
- STFM – Society of Teachers of Family Medicine.

Other primary care organisations are invited to join NAPCI. We elected to limit full membership to primary care organisations, however professional groups and organisations that do not provide primary care but have similar interests and businesses with interests in this area are also welcome as associate members. (The Institute of Medicine has defined primary care as ‘the provision of integrated, accessible healthcare services by clinicians who are accountable for addressing a large majority of personal healthcare needs, developing a sustained partnership with patients and practising in the context of family and community’.)

To promote the incubation of this new group, AMIA has provided seed money and administrative support. A website, www.napci.org, was created as a communication and marketing tool to provide information to the public and to participating organisations. The initial officers of the NAPCI Board are: David Bates (representing AMIA), chair; Jacob Reider (representing STFM), vice-chair; Melinda Jenkins (representing NONPF), secretary; and Richard Shiffman (representing AAP), treasurer.

In April 2004, NAPCI sponsored a meeting of stakeholders from six states that showcased potential partnerships between primary care providers and payers to promote EHRs. Barriers to the adoption of EHRs were discussed, along with actions that states could take to facilitate their spread into clinical practice.
AMIA’s PCI-WG and the Electronic Health Initiative (eHI: www.ehealthinitiative.org) co-sponsored the meeting that was held the day before a related AMIA Spring Conference on practical strategies for implementing electronic health records.

In autumn 2004, at the International MedInfo Conference (www.medinfo2004.org), NAPCI is co-sponsoring a meeting organised by the Primary Care Informatics Working Group of AMIA to focus on defining primary care informatics. In addition, NAPCI will be co-sponsoring other relevant meetings and has endorsed the autumn 2004 EHR summit, sponsored by the Medical Records Institute (http://www.medrecinst.com/conferences/seminar/july04/index.asp?id=95). Members of NAPCI organisations are urged to subscribe to Informatics in Primary Care, which primarily targets issues relating to primary care and informatics.

**National scene update**

Currently in the US, only about 20% of primary care providers use an EHR; many other countries are substantially further along. While the rate of EHR adoption appears to be increasing in the US, it is not growing as rapidly as it might be. The transition from paper to electronic records raises many concerns that have not been addressed. Yet the promise of increased patient safety and the power of aggregate reporting encourage movement toward greater use of EHRs, and this is receiving substantial attention in the US. In his January 2004 State of the Union address, President George W Bush stated, ‘By computerising health records, we can avoid dangerous medical mistakes, reduce costs and improve care’.

Numerous studies show gaps in safety and quality of health care in the US. In particular, the Institute of Medicine’s ‘To Err Is Human’ report brought the safety issue into the American public eye; however, it is important to note that this report focused primarily on adverse events inside the hospital because those were the data available at the time. More recently, a number of studies on the problem of safety in the outpatient setting suggest that it is roughly as big a problem outside the hospital as inside. Quality is also a major problem, and is probably an even greater issue. A recent RAND study suggested that in a huge national sample across a wide array of quality measures, the chance of getting high-quality care was little better than a coin flip.

Healthcare data standards are being developed for widespread adoption to support both information exchange and the analysis of quality and safety of care. The structure of electronic health records is also a vitally important issue. The Institute of Medicine published recommendations regarding EHR content in summer 2003. The report covers the general format of what EHRs should include, as well as a suggested timetable for the progression of their development over the next few years. The committee determined that EHR functions should:

- improve patient safety
- support the delivery of effective patient care
- facilitate management of chronic conditions
- improve efficiency
- be feasibly implemented.

The core EHR functionalities identified are:

- health information and data
- results management
- order entry/management
- decision support management
- electronic communication and connectivity
- patient support
- administrative processes
- reporting and population health.

The full report is available at www.nap.edu/catalog/10781.html.

More recently, Health Level 7 (HL7), a standards organisation best known for its standards for health messages, was commissioned by the US Department of Health and Human Services to develop a functional model for EHRs. This is to provide standard criteria for EHRs that address clinical, administrative and infrastructure needs. Many special interests but relatively few physicians and nurses were represented in the HL7 discussions and votes that took place in summer 2003 and April 2004. After the rejection of the first highly detailed standard, the criteria were condensed and carefully defined for a second vote that passed. Please see www.hl7.org for up-to-date information. An informative white paper on the HL7 EHR initiative is available at: www.hl7.org/library/committees/ehr/hl7_ehr-s_dstu_white_paper.pdf.

Several projects that contribute to the development and widespread adoption of EHRs are underway nationally. The Continuity of Care Record (CCR) and the Doctors’ Office Quality – Information Technology (DOQ-IT) are two of the most interesting. In Massachusetts, a CCR has been developed by the Massachusetts Medical Society to facilitate patient transfers across care settings. The CCR began with a plan to automate the paper form used at the time of patient transfer. This form will be transmitted in a consistent XML format so that document text originating in different settings can be interpreted and grouped. The Healthcare Information and Management Systems Society is a partner in this project.
The DOQ-IT is a national programme sponsored by the Centers for Medicare and Medicaid Services (CMS) to promote the increased use of information technology in ambulatory care (see www.cms.hhs.gov/quality/pfqi.asp). Initially, the focus is on diabetes, heart failure, coronary artery disease, hypertension, osteoarthritis and preventive care for Medicare beneficiaries. California has the lead role; other states will be identified soon. Lumetra, a non-profit organisation dedicated to measurably improving the quality, safety and integrity of healthcare (www.lumetra.com/), in conjunction with the American Academy of Family Physicians’ Center for Health Information Technology, was awarded the CMS contract to lead the quality improvement organisation for DOQ-IT (www.doqit.org/doqit/jsp/index.jsp).

NAPCI: development and current status

The next steps for NAPCI include continuing to advocate for the needs of primary care, increasing activities at the state and national levels and through individual societies, and expanding its membership. Several additional organisations representing primary care professionals have indicated an interest in joining NAPCI and are being welcomed. A process to define affiliate memberships for information technology business partners is being designed.

A national conference on Defining Primary Care Informatics is also being planned. NAPCI intends to hold forums to identify what a small primary care practice needs in an EHR, what physician residents and nurse practitioner students need in education for future EHR use, what EHRs should contain for the care of children, and what data elements are desired for health services research in primary care. Further NAPCI conferences are likely to link with related conferences for primary care professionals. In addition, NAPCI members are participating in wider efforts, such as HL7, to set standards for primary care EHRs. Members plan to gather, evaluate, develop and disseminate educational tools for primary care providers of the future, which will relate to areas such as the process of selecting an electronic record, the benefits of using clinical decision support and methods of meaningfully measuring quality by using an EHR.

Conclusions

NAPCI is growing in strength as a key alliance to bring the viewpoint of primary care professionals into the rapid evolution of electronic health records. Many of its initial recommendations have already been implemented, although it remains unclear that the move to a national health information infrastructure will sufficiently consider the needs of primary care.1

NAPCI also plans to advocate for, and to be involved in, the development of the wide variety of standards being set. The group is already multidisciplinary, with representatives from providers and educators, but it soon plans to include vendors, payers and others. Initial efforts to educate and mobilise public payers have begun. At this time there remains an obvious need for both public and private investment to support NAPCI as it convenes key working groups, develops the strategic framework and undertakes specific projects to promote the adoption of EHRs in primary care.

REFERENCES

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