

National Committee on Vital and Health Statistics (NCVHS) is a public advisory body to the Secretary of Health and Human Services. It is composed of 18 members from the private sector who are subject matter experts in the fields of health statistics, electronic HIE, privacy/security, data standards and epidemiology. They have been very involved in advising the Secretary in matters related to the HealtheWay (Nationwide Health Information Network), HIPAA, interoperability and other important topics.⁷⁴

National Institute of Standards and Technology (NIST) is a physical science laboratory that is part of the U.S. Department of Commerce and serves to promote and verify measurements and standards. This federal agency makes EHR testing recommendations. The following is a list of some of the pertinent publications related to EHRs:

- (NISTIR 7741) NIST Guide to the Processes Approach for Improving the Usability of Electronic Health Records
- (NISTIR 7742) Customized Common Industry Format Template for Electronic Health Record Usability Testing
- (NISTIR 7743) Usability in Health IT: Technical Strategy, Research, and Implementation
- (NISTIR 7769) Human Factors Guidance to Prevent Healthcare Disparities with the Adoption of EHRs⁷⁵

FEDERAL GOVERNMENT INITIATIVES

The federal government has maintained that HIT is essential to improving the quality of medical care and containing costs; two important aspects of healthcare reform. It is a major payer of healthcare with the following programs: Medicare/Medicaid, Veterans Health Administration, Military Health System, Indian Health Service and the Federal Employees Health Benefits Program. It is therefore no surprise that they are heavily involved in HIT and stand to benefit greatly from interoperability. Agencies such as Medicare/Medicaid and AHRQ conduct HIT pilot projects that potentially could improve the quality of medical care and/or decrease medical costs. The federal government has recognized the importance of technology in multiple areas and as a result has a federal chief technology officer and chief technology officer for HHS.

While the US government has been involved in many aspects of health informatics since the inception of the field, its role increased dramatically with the passage of the American Recovery and Reinvestment Act (ARRA) in 2009.

The most significant governmental initiative that affected the field of Informatics was the HITECH Act. This legislation impacted HIT adoption, particularly EHRs, as well as training and research. HITECH had five broad goals: (a) improve medical quality, patient safety, healthcare efficiency and reduce health disparities; (b) engage patients and families; (c) improve care coordination; (d) ensure adequate privacy and security of personal health information; (e) improve population and public health. Title IV and XIII of ARRA, known as the Health Information Technology for Economic and Clinical Health (HITECH) Act was devoted to funding of HIT programs. The HealthIT.gov website outlines the details of many of the HITECH programs.⁶⁷ Readers are encouraged to visit this web site often as HIT policy is subject to frequent change. In addition to the major programs, the following are also important initiatives that were part of HITECH:

- Privacy and HIPAA changes; to be discussed in chapter on privacy and security
- The National Telecommunications and Information Administration's Broadband Technology Opportunities Program. This funded the National Broadband Plan discussed in the chapter on telemedicine
- Indian Health Services HIT programs
- Social Security Administration HIT programs
- Veterans Affairs (VA) HIT programs⁷⁶

The Patient Protection and Affordable Care Act (PPACA) was enacted into law in March 2010 and is commonly known as the Affordable Care Act (ACA, or "Obamacare"). Its primary goals were to increase insurance coverage by expanding private and Medicaid coverage, to reduce healthcare costs, and to improve patient outcomes. The main focus of the legislation so far has been to increase health insurance coverage through the following mechanisms:

- Regulations that prevent insurers from discriminating against people with pre-existing conditions and prohibit lifetime caps on healthcare costs
- The requirement that all individuals have adequate insurance (and thus pay into the system while healthy)
- Subsidies to make that insurance affordable – for the lowest-income families, insurance is provided directly by Medicaid, while for those with higher incomes insurance is subsidized at rates that diminish with increasing income

Other areas within the ACA include:

- Patient Centered Outcomes Research Institute (PCORI) that funds patient-centered and comparative effectiveness research

- The CMS Innovation Center that evaluates healthcare models such as the Accountable Care Organization (ACOs)
- The National Prevention and Health Promotion Strategy
- Independence at Home Demonstration Projects
- Readmission Reduction Program to penalize healthcare systems with excessive readmissions
- Value based reimbursement to hospitals and physicians based on quality measures
- Scholarships and loan repayments for primary care physicians
- Grants for Health Centers to support HIT⁷⁷

Medicare Access and CHIP Reauthorization Act (MACRA) of 2015

The main focus of this law was to replace the sustainable growth rate (SGR) formula, which was slated (but never implemented) to cut Medicare payment for physicians. MACRA also created a new framework for physician reimbursement, aiming to reward them for value and not volume of care provided. A number of other chapters in this book cover aspects of this subject. This new legislation is subject to policy change so should be interpreted with that context.⁷⁸

State Governments and HIT

There are a variety of state-based HIT initiatives, evaluating the adoption of technologies such as EHRs, HIE and e-prescribing. State Medicaid offices are anxious to conduct pilot projects aimed at reducing costs and/or improving quality of care.⁷⁹

International Governments and HIT

This chapter focuses primarily on US health informatics, but the reality is that this is an important and emerging field worldwide. Other countries have less expensive and less fragmented healthcare systems, but they also must deal with aging populations and rising chronic diseases. Meanwhile, technology continues to evolve unabated and in the case of mobile technology is quite affordable. They are therefore looking for healthcare solutions using cost-effective health information technology. Issues such as IT interoperability among European nations and certification are challenges all countries face. In the case of Europe and the European Union they refer to Health IT as eHealth and IT as information and communication technology (ICT).

The Digital Agenda for Europe (DAE) was created to enhance the economic condition in Europe and

modernize all industries, to include healthcare. They have also established ICT-related cooperative efforts outside the EU. In 2013, they established ties with the US Department of Health and Human Services to further eHealth cooperation. The established Roadmap focuses on two high priority areas: standards development for interoperability and workforce development to increase skilled health IT workers in Europe. The timeline for this cooperative initiative was 18 months.⁸⁰ Multiple other international eHealth initiatives, collaborations and innovations are discussed in other chapters.

International health informatics is a mature sophisticated movement that is supported by multiple countries and international organizations such as the World Health Organization (WHO). The WHO fully supports eHealth with multiple programs and projects. One of their newest collaborations is the WHO Collaborating Centre in Consumer Health Informatics, established to help patients manage their own health. The most prominent international informatics organization is the **International Medical Informatics Association (IMIA)** that supports the International Journal of Medical Informatics. Several international conferences are held to collaborate and support health informatics research efforts. Other international medical informatics associations are discussed in the chapter on International Health Informatics.

PUBLIC-PRIVATE PARTNERSHIPS

National Academy of Medicine (NAM). This prominent organization was formerly known as the Institute of Medicine (IOM). It has published several highly influential reports on HIT over the last couple of decades. These reports have been widely cited, and have been very influential, influencing legislation, such as HIPAA and HITECH. They are available for download via PDF, and hard copies can be purchased on the National Academies Press website.

The first round of IOM reports came out in the 1990s, and into 2000. They focused mainly on identifying problems. The original report, *The Computer-Based Patient Record*, was published in 1991, and then revised in 1997. This was the first volume to bring together all the research identifying problems with paper records, the fact that they're illegible, inefficient, and error prone, and really made the point that the computer-based record was vital to modern health care.⁸¹

Another influential report was *For the Record*, coming out in 1997, noting that, while there were benefits of EHRs, they would be compromised by inadequate