

A Brief Overview of Health Information Technology

The cost of the medical error problem:

Adverse Drug Events (ADEs) are responsible for \$2 billion per year nationwide in hospital costs alone.¹ Dr. David Brailer estimated that a national health information infrastructure can save about \$140 billion per year through improved care and reduced duplication of services.²

Why Health IT?

Health information technology (HIT) allows comprehensive management of medical information and its secure exchange between health care consumers and providers. Broad use of HIT has the potential to:

- improve health care quality
- prevent medical errors
- increase the efficiency of care provision
- reduce unnecessary health care costs,
- increase administrative efficiencies
- decrease paperwork
- expand access to affordable care
- improve population health.

Intersection of HIT

Technology touches all levels of the healthcare continuum.

- Patients with Personal Health Records (PHRs). Designed to empower the patient to take charge of their health through electronic or online care management.
- Providers with Electronic Health Records (EHRs). Designed for a physician to increase the quality of care delivered to a patient with improved clinical decision-making, electronic medical records management, scheduling and billing.
- Medical Community with Health Information Exchange (HIEs). HIEs can provide a consolidated view of a patient's health history across many disparate care providers by connecting such data systems as EHRs, PHRs, labs, pharmacies, and payers. While the jury is still out on how this should happen, HIEs can improve care coordination between providers while drastically decreasing the cost of duplicated events by managing patient health information in a timely, accurate, relevant and secure way.
- State Population with population health management. Accurate and timely patient health information can be used to monitor the health status of a specific population or state and enable fast response when needed.

¹ David Bates (Bates DW, et al. JAMA. 1997;277(4):307-11)

² David Brailer, National Health Information Technology Coordinator, at the HHS, Secretarial Summit on Health Information Technology, May 6, 2004

National HIT Programs Impacting Hawaii

The office of the national coordinator for health IT (ONC) established two priority grant programs that could make a far reaching impact on health care reform.

- **Health Information Technology Extension Program** provides grants to establish Health Information Technology Regional Extension Centers that will offer technical assistance, guidance and information on best practices to support and accelerate health care providers' efforts to become meaningful users of Electronic Health Records (EHRs).
- **State Health Information Exchange Cooperative Agreement Program** will support states and/or State Designated Entities (SDEs) in establishing health information exchange (HIE) capacity among health care providers and hospitals in their jurisdictions. Such efforts at the state level will establish and implement appropriate governance, policies, and network services within the broader national framework to rapidly build capacity for connectivity between and among health care providers. State programs to promote HIE will help to realize the full potential of EHRs to improve the coordination, efficiency and, quality of care.

Improving Patient Care

Interoperable HIT can improve individual patient care in numerous ways, including:

- Complete, accurate, and searchable health information, available at the point of diagnosis and care, allowing for more informed decision making to enhance the quality and reliability of health care delivery.
- More efficient and convenient delivery of care, without having to wait for the exchange of records or paperwork and without requiring unnecessary or repetitive tests or procedures.
- Earlier diagnosis and characterization of disease, with the potential to thereby improve outcomes and reduce costs.
- Reductions in adverse events through an improved understanding of each patient's particular medical history, potential for drug-drug interactions, or (eventually) enhanced understanding of a patient's metabolism or even genetic profile and likelihood of a positive or potentially harmful response to a course of treatment.
- Increased efficiencies related to administrative tasks, allowing for more interaction with and transfer of information to patients, caregivers, and clinical care coordinators, and monitoring of patient care.

Who coordinates these efforts in Hawaii

The Hawaii Health Information Exchange is a nonprofit organization designated by the State government to be Hawaii's HIE entity for purposes of receiving federal ARRA or other funding to plan a rational health information exchange system for Hawaii, promulgate rules and procedures for information exchange, and engage providers at all levels in implementing the plan. The HHIE was also invited to apply for the Regional Extension Center funding for Hawaii.