

Health Information Technology (IT) Basics

Q. What is health IT or ehealth?

A. Health information technology (IT), also known as ehealth, refers to various computer programs and tools, such as electronic health records (EHRs) and personal health records (PHRs) that enable doctors, other providers and consumers to record a patient's medical history electronically. In addition providers can use health IT tools to order tests or drugs electronically, get alerts on best practices such as avoiding harmful drug-drug interactions, and report quality and public health information. Health IT programs also enable "health information exchange" (HIE), which is the electronic movement of health-related information among individuals and organizations in a standardized way, as discussed in more detail below. New York State has been a national leader in promoting the adoption and use of health IT and HIE.

Q. What are the benefits of health IT?

A. In today's health care system patients' medical information very often gets recorded in paper format and typically only resides at those providers' sites where it is initially recorded. Information kept in this form is not easily accessible to the patient, his or her providers, nor to providers in any other health care settings who might be treating the same patient or fulfilling a patient's test or prescription orders. These obstacles impact providers' ability to work together to coordinate patients' care, monitor patient safety and deliver health care efficiently. The appropriate use of health IT helps to remedy some of the situations described above and in doing so improves the quality and efficiency of health care. By providing providers and patients with the right information at the right time through health IT tools they are in a better position to make more informed medical decisions.

Some specific benefits include the following:

- **Improved quality and safety:** Health IT tools enable doctors and other providers to access key medical information about their patients and have a more complete understanding about a patient's condition and treatments which can improve care coordination and results. It has been shown that providers using EHRs score higher on quality measures than providers without the technology.
- **Reduced cost:** The health care system can realize various efficiencies through improved health IT adoption and use. Studies have shown that health IT tools can be effective in reducing duplicative or repetitive clinical laboratory tests. The removal of paper from the system also results in administrative cost savings and improved efficiencies.
- **Improved provider and patient convenience:** With better health IT tools doctors and other providers will be able to access more complete medical information at the

point of care thus saving time in retrieving that information about their patients from a variety of other sources such as other providers, the pharmacy, the hospital, nursing homes, etc. Patients would not need to fill out the same forms at every doctor's office, hospital, and other medical facilities they visit.

- **Access to patient information in an emergency or natural disaster:** The value of health IT systems is especially important in an emergency or disaster situation. In emergencies, time is of the essence and it is critical that doctors and other providers have quick access to their patients' medical history. In disaster situations records might not be accessible at the institution where they were first recorded. Health IT tools would enable providers to retrieve that information at the point of care and in doing so save lives.
- **Improved public health information on disease outbreaks:** Health IT tools can provide government health agencies with aggregated health information from across the population in a timely manner that helps them identify disease outbreaks. For example if a government agency learns from electronic records that multiple people in a region have just been diagnosed with flu, it can take steps to alert the public and providers of a flu outbreak. If an agency finds that there are high levels of asthma or cancer in an area, it can investigate the reasons and if necessary alert the public. More timely information can help save lives.

Q. What is health information exchange (HIE)?

A. Health information exchange (HIE) refers to the exchange of patient health information among providers, patients and other authorized persons and entities in real time while ensuring security, privacy and other protections. HIE is necessary for compiling the complete experience of a patient's care and ensuring it is accessible to providers as the patient moves through various health care settings. This will support providers in making informed decisions so medical errors and redundant tests can be reduced and care coordination improved. HIE is also needed for patients to have access to their own personal health information which can be portable between health plans or providers.

Various "regional health information organizations" (RHIOs), across New York, have received grant funding from the Department of Health (DOH) to implement HIE projects in their communities. These RHIOs are responsible for governing HIE projects to ensure that the electronic exchange of health care information via computers among providers and consumers results in clinical value and improves the care provided to patients. Together the RHIOs are helping to build a statewide HIE network called the Statewide Health Information Network for New York (SHIN-NY). For more information see the "New York State Strategy and Activities" section.

Q. Why do we need health information exchange?

A. Patients typically visit several providers and sites for their care – including doctors, nurses, hospitals, nursing homes, community health centers, clinical laboratories, pharmacies and many others. While each provider site keeps its own medical records on its patients, its providers often cannot readily access records and important information about their patients’ care from other sites. Doctors and other providers can give patients better care and avoid mistakes if they have access to their complete medical history – such as lab tests, medication history, problem list, allergies, and other health reports. By having access to a more complete medical history, providers and patients can make more informed decisions about the patient’s care plan, thus improving the quality of that care and avoiding medical errors.

Q. Will patient health information be kept private and secure?

A. RHIOs and their participating providers are required to obey federal and state laws to protect the privacy and security of personal health information. Working with NYeC and DOH, the RHIOs have developed other strong policies that will protect patient privacy. For example, current policies do not allow providers to exchange a patient’s health information unless the patient has given his or her prior consent (except in an emergency situation where a patient is not physically able to provide consent). Patient information must be stored and shared in a secure way, and only those providers actively involved in the care of the patient are authorized to access his/her information. Special technology keeps unauthorized users from seeing any personal and private information, thus protecting consumers from security breaches. For more information see the “Privacy and Security” section.

Q. Why is consumer engagement and general outreach important?

A. Many HIE projects have started operating in New York in recent months. Their success relies on the full awareness and support of all stakeholders who are involved and impacted – consumers, providers, insurers, employers, legislators, government officials and many more. By engaging various constituencies, these projects can address and resolve their issues and concerns. This feedback will allow projects to improve operations to ensure that HIE benefits all stakeholders. Consumer engagement is especially important. Consumers have the most at stake in ensuring that a health system that is reformed through the use of health IT is truly patient-centered. To that end a Consumer Advisory Council, comprised of various consumer advocacy organizations, has been created to bring the consumer’s voice into policy discussions.