Advancements in Pharmacy Technology

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Today's Objectives

- Describe the HIT landscape in the United States, how national HIT priorities are set and the most promising opportunities for pharmacists to "connect" to them.

- Define common HIT terms.

- Provide an overview of federal programs created through the Recovery Act (stimulus bill/HITECH provisions) to accelerate the adoption and "meaningful use" of health information technology.

- Understand opportunities for pharmacists to improve medication use when enabled by HIT interoperability and patient-specific electronic medical record (EMR) access.

- Discuss current and future pharmacy processes that may be supported by HIEs and related opportunities for the profession to advance care through HIE.

- Describe new and emerging technologies that will affect the practice of community pharmacy and their impact on the delivery of patient services.

- Review return on investment and implementation costs trends for new and emerging technology

"You think you understand the situation but what you don't understand is that the situation just changed."-----Putnam Investment advertisement
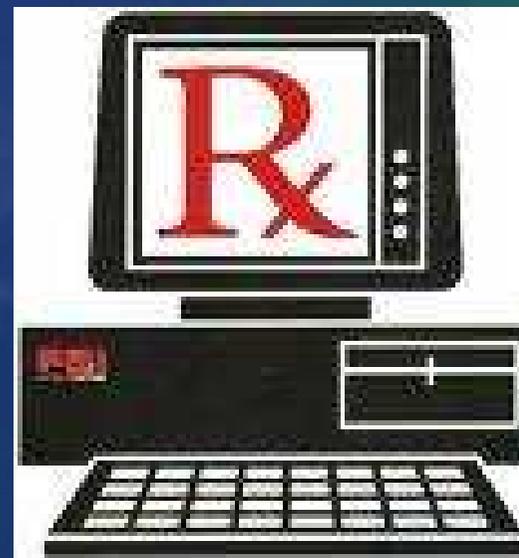
In our professional careers...

- ...we have witnessed the transition from the industrial age to the information age.

From typewriters to computers

Moore's Law…Gordon Moore 1965

- Since the invention of the integrated circuit in 1958, the number of transistors that can be placed inexpensively on an integrated circuit has increased exponentially, doubling approximately every two years.

- Almost every measure of the capabilities of digital electronic devices is strongly linked to Moore's law: processing speed, memory capacity, even the number and size of pixels in digital cameras.

Moore's law in real life...
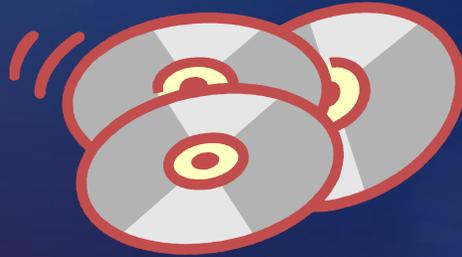
- "If we had similar progress in the automotive technology, today you could buy a Lexus for $2. It would travel at the speed of sound, and go about 600 miles on a thimble of gas."

  –John Naisbett

It can be exhausting!

Why is Health IT a Central Strategy for Health Care?

Current Lack of Information:

- Leads to 1 in 7 hospital admissions*
  - When care providers do not have access to previous medical records
- 12% of physician orders are not executed as written*
- 20% of laboratory tests unnecessary*
  - Requested because previous studies are not accessible
- Drug errors
  - Complicate 1 in 6.5 hospitalizations
  - Occur in 1/20 outpatient Rxs

* President's IT Advisory Committee (*PITAC*)

The Health IT Infrastructure

- ONCHIT

- David Blumenthal

- http://www.hhs.gov/healthit/

- "We will make wider use of electronic records and other health information technology to help control costs and reduce dangerous medical errors."
  -- President Bush, January 31, 2006

Terms

- EHR

- EMR

- PHR

- HI exchange

- Health information organization

- Regional health information organization

- NHIN

HIT

Interoperability is common theme

National standards are needed to enable information flow

Principle difference EMR and EHR is interoperable exchange

Control of information distinguishes EHR from PHR

HIE is process; HIO is oversight, RHIO is type of HIO