

# EMRs: Evidence Shows Impact

- Center for Information Technology Leadership recent study indicates \$44 billion in savings from 100% adoption of CPOE in the ambulatory care environment
- Computerized Physician Order Entry reduced error rates by 55%--from 10.7 to 4.9 per 1,000 patient days and reduced serious medication errors by 88% at Brigham & Womens Hospital...reduced adverse drug events by 70% at LDS Hospital

# Despite Evidence, Adoption is Slow

- Only 5-10% of physicians use electronic medical records in their practices
- Institute for Safe Medication Practices estimates that less than 5% of U.S. physicians currently “write” prescriptions electronically, although the technology to do so is readily available
- 13-15% of hospitals today have some form of computerized medication order entry implemented but physicians in these organizations enter less than 25% of their orders using the system

# The Value of Electronic Prescribing

## Prevention of Adverse Drug Events

- There are an estimated 8.8 million adverse drug events (ADE's) each year in the United States of which 3 million are considered preventable
- The Center for Information Technology Leadership estimates that implementing electronic prescribing with advanced decision support would **eliminate over 2 million ADEs per year**, over 130,000 of which would be life-threatening ADEs

# The Value of Electronic Prescribing

## Improved decision making at the point of care

- Software packages that support e-prescribing can calculate dosing and alert clinicians about potential risks such as drug-drug interactions or contraindications
- Electronic drug labeling, the DailyMed, maintained by FDA and NLM, will provide prescribers with information about the risks and benefits of drugs at the point of care. This will facilitate rational drug use where evidence-based decisions can be made by informed clinicians to maximize the value of drug therapy.

# The Value of Electronic Prescribing

## Better health outcomes

- Medicare beneficiaries have an average of five coexisting conditions requiring some form of drug therapy
- The prevalence of elderly patients using at least one inappropriately prescribed drug ranges from a high of 40% for nursing home patients to 21.3% in the outpatient population

# The Value of Electronic Prescribing

## Lower health care costs

- The widespread adoption of e-prescribing is estimated to **save** the health care system **\$27 billion each year**
- 1.3 million physician visits and 190,000 hospitalizations could be avoided each year
- Experts project that electronic prescribing with advanced decision support would result in a **28% reduction in drug costs**

# Barriers to Adoption of IT

- Lack of interoperability and standards – will my systems talk to each other? To other systems?
- Organizational change and leadership
- Lack of capital to invest
- Reimbursement Mechanisms, Incentives

# Institute of Medicine

“Information technology, including the Internet, holds enormous potential for transforming the health care delivery system, which today remains relatively untouched by the revolution that has swept nearly every other aspect of society.”

— *Crossing the Quality Chasm*  
*March 2001*