

Benefits of Electronic Health Records (EHRs)

Health care is a team effort. Shared information supports that effort. Patients, their families and providers all benefit when all team members can communicate with each other effectively and efficiently. Electronic Health Records (EHRs) are the first step to transformed health care. The benefits of electronic health records include:

- **Better health care** by improving all aspects of patient care, including safety, effectiveness, patient-centeredness, communication, education, timeliness, efficiency, and equity.
- **Better health** by encouraging healthier lifestyles in the entire population, including increased physical activity, better nutrition, avoidance of behavioral risks, and wider use of preventative care.
- **Improved efficiencies and lower health care costs** by promoting preventative medicine and improved coordination of health care services, as well as by reducing waste and redundant tests.
- **Better clinical decision making** by integrating patient information from multiple sources.

HEALTH CARE QUALITY AND CONVENIENCE

Electronic Health Records (EHRs) can improve health care quality. EHRs can also make health care more convenient for providers and patients.

Benefits for Providers:

- Quick access to patient records from inpatient and remote locations for more coordinated, efficient care
- Enhanced decision support, clinical alerts, reminders, and medical information
- Performance-improving tools, real-time quality reporting
- Legible, complete documentation that facilitates accurate coding and billing
- Interfaces with labs, registries, and other EHRs
- Safer, more reliable prescribing

Benefits for Patients:

- Reduced need to fill out the same forms at each office visit
- Reliable point-of-care information and reminders notifying providers of important health interventions
- Convenience of e-prescriptions electronically sent to pharmacy
- Patient portals with online interaction for providers
- Electronic referrals allowing easier access to follow-up care with specialists

EHRs Improve Information Availability

With EHRs, patients' health information is available in one place, when and where it is needed. Providers have access to the information they need, at the time they need it to make a decision.

EHRs Can Be the Foundation for Quality Improvements

Reliable access to complete patient health information is essential for safe and effective care. EHRs place accurate and complete information about patients' health and medical history at providers' fingertips. With EHRs, providers can give the best possible care, at the point of care. This can lead to a better patient experience and, most importantly, better patient outcomes.

Practices also report that they utilize extracted reports on patient and disease registries to track patient care as well as facilitate quality improvement discussions during clinical meetings.

EHRs Support Provider Decision Making

EHRs can help providers make efficient, effective decisions about patient care, through:

- Improved aggregation, analysis, and communication of patient information
- Clinical alerts and reminders
- Support for diagnostic and therapeutic decisions

- Built-in safeguards against potential adverse events

Health Care Convenience Matters

Providers with busy practices—and patients with busy lives—appreciate convenience in their health care transactions. EHRs can help. For example, with e-prescribing, patients can have their prescriptions ordered and ready even before they leave the provider's office. Providers and their staff can often file insurance claims immediately from the provider's office. And providers may be able to access patient files or submit prescriptions remotely—from home or while on vacation.

PATIENT PARTICIPATION

Providers and patients who share access to electronic health information can collaborate in informed decision making. Patient participation is especially important in managing and treating chronic conditions such as asthma, diabetes, and obesity.

How EHRs Foster Patient Participation

Electronic health records (EHRs) can help providers:

- **Ensure high-quality care.** With EHRs, providers can give patients full and accurate information about all of their medical evaluations. Providers can also offer follow-up information after an office visit or a hospital stay, such as self-care instructions, reminders for other follow-up care, and links to web resources.
- **Create an avenue for communication with their patients.** With EHRs, providers can manage appointment schedules electronically and exchange e-mail with their patients. Quick and easy communication between patients and providers may help providers identify symptoms earlier. And it can position providers to be more proactive by reaching out to patients.

Personal Health Records

A personal health record, or PHR, is an electronic application used by patients to maintain and manage their own health information (or that of others for whom they are authorized to do so). A PHR differs from an EHR in that patients themselves usually set up and access the PHR. Patients can use a PHR to keep track of information from doctor visits, record other health-related information, and link to health-related resources.

PHRs can increase patient participation in their own care. They can also help families become more engaged in the health care of family members.

- With **standalone PHRs**, patients fill in the information from their own records and memories, and the information is stored on patients' computers or the Internet.
- **Tethered or connected PHRs** are linked to a specific health care organization's EHR system or to a health plan's information system. The patient accesses the information through a secure portal.

With tethered/connected PHRs, patients can log on to their own records and see, for example, the trend of their lab results over the last year. That kind of information can motivate patients to take medications and keep up with lifestyle changes that have improved their health.

Ideally, patients will be able to link their PHRs with their doctors' EHRs, creating their own health care "hubs." Most doctors are not ready for that kind of change quite yet, but it is a worthy goal.

The Patient's Perspective

Information technology is at the heart of modern life. It touches different people in different ways. Some are comfortable with new technologies; others may be intimidated, at least at first. EHRs, PHRs, and other health IT developments tend to make many patients more active participants in their own health care. As providers

adopt new technologies such as EHRs, it's important to keep the patient's perspective in mind.

IMPROVED DIAGNOSTICS AND PATIENT OUTCOMES

When health care providers have access to complete and accurate information, patients receive better medical care. Electronic health records (EHRs) can improve the ability to diagnose diseases and reduce—even prevent—medical errors, improving patient outcomes.

A national survey of doctors¹ who are ready for meaningful use offers important evidence:

- 94% of providers report that their EHR makes records readily available at point of care.
- 88% report that their EHR produces clinical benefits for the practice.
- 75% of providers report that their EHR allows them to deliver better patient care.

EHRs can aid in diagnosis

With EHRs, providers can have reliable access to a patient's complete health information. This comprehensive picture can help providers diagnose patients' problems sooner.

EHRs can reduce errors, improve patient safety, and support better patient outcomes

How? EHRs don't just contain or transmit information; they "compute" it. That means that EHRs manipulate the information in ways that make a difference for patients. For example:

- A qualified EHR not only keeps a record of a patient's medications or allergies, it also automatically checks for problems whenever a new medication is prescribed and alerts the clinician to potential conflicts.
- Information gathered by a primary care provider and recorded in an EHR tells a clinician in the emergency department about a patient's life-threatening allergy, and emergency staff can adjust care appropriately, even if the patient is unconscious.
- EHRs can expose potential safety problems when they occur, helping providers avoid more serious consequences for patients and leading to better patient outcomes.
- EHRs can help providers quickly and systematically identify and correct operational problems. In a paper-based setting, identifying such problems is much more difficult, and correcting them can take years.

Risk Management and Liability Prevention: Study Findings

EHRs May Improve Risk Management By:

- Providing clinical alerts and reminders
- Improving aggregation, analysis, and communication of patient information
- Making it easier to consider all aspects of a patient's condition
- Supporting diagnostic and therapeutic decision making
- Gathering all relevant information (lab results, etc.) in one place
- Support for therapeutic decisions
- Enabling evidence-based decisions at point of care
- Preventing adverse events
- Providing built-in safeguards against prescribing treatments that would result in adverse events
- Enhancing research and monitoring for improvements in clinical quality

Certified EHRs May Help Providers Prevent Liability Actions By:

- Demonstrating adherence to the best evidence-based practices
- Producing complete, legible records readily available for the defense (reconstructing what actually happened during the point of care)
- Disclosing evidence that suggests informed consent

EHRs can improve public health outcomes

EHRs can also have beneficial effects on the health of groups of patients. Providers who have electronic health information about the entire population of patients they serve can look more meaningfully at the needs of patients who:

- Suffer from a specific condition
- Are eligible for specific preventive measures
- Are currently taking specific medications

This EHR function helps providers identify and work with patients to manage specific risk factors or combinations of risk factors to improve patient outcomes.

For example, providers might wish to identify:

- How many patients with hypertension have their blood pressure under control
- How many patients with diabetes have their blood sugar measurements in the target range and have had appropriate screening tests

This EHR function also can detect patterns of potentially related adverse events and enable at-risk patients to be notified quickly.

IMPROVED CARE COORDINATION

The Need for Better Improved Care Coordination

As medical practices and technologies have advanced, the delivery of sophisticated, high-quality medical care has come to require teams of health care providers—primary care physicians, specialists, nurses, technicians, and other clinicians.

Each member of the team tends to have specific, limited interactions with the patient and, depending on the team member's area of expertise, a somewhat different view of the patient. In effect, the health care team's view of the patient can become fragmented into disconnected facts and clusters of symptoms. Health care providers need less fragmented views of patients.

Leveraging an EHR across the continuum of care allows for:

- Better integration among providers by improved information sharing,
- Viewable and up-to-date medication and allergy lists,
- Order entry at point of care or off-site,
- Standardization of data, order sets, and care plans helping to implement common treatment of patients using evidence-based medicine,
- Access to experts for rural health care providers by sharing best practices and allowing for specialized care through telemedicine,
- Population management trended data and treatment and outcome studies,
- More convenient, faster, and simpler disease management.

How EHRs Can Improve Care Coordination

Electronic health record (EHR) systems can decrease the fragmentation of care by improving care coordination. EHRs have the potential to integrate and organize patient health information and facilitate its instant distribution among all authorized providers involved in a patient's care. For example, EHR alerts can be used to notify

providers when a patient has been in the hospital, allowing them to proactively follow up with the patient.

With EHRs, every provider can have the same accurate and up-to-date information about a patient. This is especially important with patients who are:

- Seeing multiple specialists
- Making transitions between care settings
- Receiving treatment in emergency settings

Better availability of patient information can reduce medical errors and unnecessary tests.

Better availability of information can also reduce the chance that one specialist will not know about an unrelated (but relevant) condition being managed by another specialist.

Better care coordination can lead to better quality of care and improved patient outcomes.

MEDICAL PRACTICE EFFICIENCIES AND COST SAVINGS

Many health care providers have found that electronic health records (EHRs) help improve medical practice management by increasing practice efficiencies and cost savings.

A national survey of doctors¹ who are ready for meaningful use offers important evidence:

- 79% of providers report that with an EHR, their practice functions more efficiently
- 82% report that sending prescriptions electronically (e-prescribing) saves time

- 68% of providers see their EHR as an asset with recruiting physicians
- 75% receive lab results faster
- 70% report enhances in data confidentiality

Based on the size of a health system and the scope of their implementation, benefits for large hospitals can range from \$37M to \$59M over a five-year period in addition to incentive payments.

Savings are primarily attributed to automating several time-consuming paper-driven and labor-intensive tasks

- Reduced transcription costs
- Reduced chart pull, storage, and re-filing costs
- Improved and more accurate reimbursement coding with improved documentation for highly compensated codes
- Reduced medical errors through better access to patient data and error prevention alerts
- Improved patient health/quality of care through better disease management and patient education

Electronic Health Records Create More Efficient Practices

EHR-enabled medical practices report:

- Improved medical practice management through integrated scheduling systems that link appointments directly to progress notes, automate coding, and managed claims
- Time savings with easier centralized chart management, condition-specific queries, and other shortcuts
- Enhanced communication with other clinicians, labs, and health plans through:
 - Easy access to patient information from anywhere
 - Tracking electronic messages to staff, other clinicians, hospitals, labs, etc.

- Automated formulary checks by health plans
- Order and receipt of lab tests and diagnostic images
- Links to public health systems such as registries and communicable disease databases

Affect On Revenue: Automating Clinical Documentation And Orders

- Enhanced ability to meet important regulation requirements such as Physician Quality Reporting Initiative (PQRI) through alerts that notify physicians to complete key regulatory data elements
- Reduction of time and resources needed for manual charge entry resulting in more accurate billing and reduction in lost charges
- Reduction in charge lag days and vendor/insurance denials associated with late filing
- Charge review edits alerting physicians if a test can be performed only at a certain frequency
- Alerts that prompt providers to obtain Advance Beneficiary Notice, minimizing claim denials and lost charges related to Medicare procedures performed without Advance Beneficiary Notice

Electronic Health Records Reduce Paperwork

EHRs can reduce the amount of time providers spend doing paperwork. Administrative tasks, such as filling out forms and processing billing requests, represent a significant percentage of health care costs. EHRs can increase practice efficiencies by streamlining these tasks, significantly decreasing costs.

In addition, EHRs can deliver more information in additional directions. EHRs can be programmed for easy or even automatic delivery of information that needs to be shared with public health agencies or for the purpose of quality measurement.

Electronic Prescribing (E-Prescribing)

Paper prescriptions can get lost or misread. With electronic prescribing (e-prescribing), doctors communicate directly with the pharmacy. An e-prescribing system can save lives (by reducing medication errors and checking for drug interactions), lower costs, and improve care. It is more convenient, cheaper for doctors and pharmacies, and safer for patients. In short, e-prescribing is an important, high-visibility component of progress in health information exchange.

Electronic Health Records Reduce Duplication of Testing

Because EHRs contain all of a patient's health information in one place, it is less likely that providers will have to spend time ordering—and reviewing the results of—unnecessary or duplicate tests and medical procedures. Less utilization means fewer costs.

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