



# Health Policy Snapshot

Health Care Quality

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ISSUE BRIEF

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## Does Health Information Technology improve quality of care?

### Takeaways:

- Information technology can improve the quality of care patients receive by averting medical errors, improving communication and boosting efficiency.
- New federal laws aim to spur health care providers to adopt information technology more widely in their everyday work.

### Overview

Many industries have lowered costs and improved quality through investments in information technology. The health care sector, however, has been slow to follow suit. Many providers lack the computer systems necessary to track a patient's care or coordinate it across all the providers a patient may see. Increasingly, the federal government has stressed the value of health information technology (HIT) in helping providers to share information quickly, monitor compliance with treatment guidelines and measure and improve their own performance. In 2009, Congress approved \$29 billion for a national HIT infrastructure.

### HIT CAN HELP AVERT MEDICAL ERRORS

At least 1.5 million Americans are injured every year by drug errors in hospitals, nursing homes and outpatient clinics.<sup>1</sup> According to a study of family physicians, 80 percent of medical errors began with

miscommunication, misinformation in the medical record, a lack of access to patient records or related problems.<sup>2</sup> HIT and EHRs help clinicians by triggering warnings and alerts when actions being taken could injure a patient. They support timely and effective patient communications, aid care coordination across providers and encourage patient-centered care. In addition, they ensure more complete medical records.

In one study, primary care physicians reported that clinical information important for patient care was missing in nearly one in seven visits; physicians who reported having full electronic medical records were significantly less likely to report missing clinical information.<sup>3</sup>

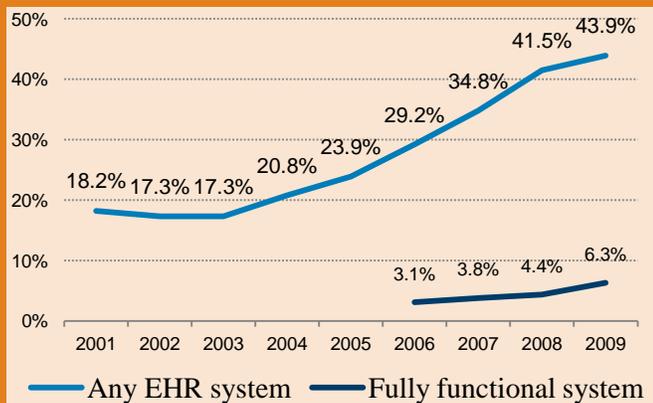
In Georgia, one medical center reported that its EHR system helped reduce medication administration errors – such as wrong person, wrong drug or wrong route of administration – by 66 percent.<sup>4</sup> In Cleveland and surrounding communities, early data shows that patients with diabetes who had an EHR received all the recommended care for their condition 51 percent of the time, compared with just 7 percent of the time for those with paper records.<sup>5</sup>

### HIT CAN IMPROVE COMMUNICATION

HIT can ease communication between patients and doctors, which can result in better outcomes. Many EHR systems include online patient portals in which patients can view test results, see aspects of their medical records and email their doctors.

## EHR ADOPTION

Percentage of office-based physicians using electronic medical or health records systems



Source: <http://www.rwjf.org/files/research/71542report.pdf>

A Kaiser Permanente study looked at the effect of patient-physician email among 35,400 patients with diabetes or hypertension or both. The study found that over a two-month period, emailing with health care providers led to statistically significant improvements in patient conditions. Moreover, the more emailing patients did, they more likely they were to see improvements, such as lower blood pressure readings or better control of their glucose levels.<sup>6</sup>

## HIT CAN DRIVE EFFICIENCY GAINS

Although adopting a new EHR system can be costly and time-consuming for staff, the long-term gains can be many. By one estimate, if most hospitals and physicians' offices adopted HIT, the potential savings for both inpatient and outpatient care could average more than \$77 billion annually. The largest savings would come from shorter hospital stays, less time spent by nurses on paperwork and more efficient drug utilization.<sup>7</sup> An Ohio hospital reduced its average emergency department triage-to-discharge time by nearly two hours and its triage-to-admission time by more than three hours after implementing an EHR system.<sup>8</sup>

## FEDERAL FUNDING FOR MORE HIT

The 2009 Health Information Technology for Economic and Clinical Health (HITECH) Act – part of the American Recovery and Reinvestment Act – provided \$29 billion for HIT. The majority of the new funding, \$27 billion, supports incentive payments to providers. Doctors' offices and hospitals that demonstrate "meaningful use" of information technology will be rewarded.

The Act also provides \$2 billion for infrastructure, including:

- More than five dozen Regional Extension Centers to help primary care providers adopt EHRs
- The Beacon Community Program, which funds 17 communities that are leaders in adopting HIT
- The State Health Information Exchange Program to fund efforts to transmit patient information within and across states and health care systems
- The Strategic HIT Advanced Research Projects Program, which supports "breakthrough" research to accelerate nationwide use of HIT.

## WANT TO KNOW MORE?

- [\*Health Information Technology: Can Hit Lower Costs and Improve Quality?\* \(RAND Corporation\)](#)
- [\*Health Information Technology in the United States\* \(RWJF\)](#)
- [\*Keeping the Promise of Electronic Health Records\* \(Better Health Greater Cleveland\)](#)

<sup>1</sup> <http://www.iom.edu/Reports/2006/Preventing-Medication-Errors-Quality-Chasm-Series.aspx>

<sup>2</sup> <http://www.annfammed.org/cgi/content/full/2/4/317>

<sup>3</sup> <http://www.rwjf.org/pr/product.jsp?id=39948>

<sup>4</sup> [http://www.himsssehra.org/docs/EHRA\\_Benefits\\_032309.pdf](http://www.himsssehra.org/docs/EHRA_Benefits_032309.pdf)

<sup>5</sup> <http://www.betterhealthcleveland.org/getdoc/f4410074-f378-4878-b510-34909196de30/ExecSummary.aspx>

<sup>6</sup> <http://content.healthaffairs.org/content/29/7/1370.abstract?rss=1>

<sup>7</sup> [http://www.rand.org/pubs/research\\_briefs/RB9136/index1.html](http://www.rand.org/pubs/research_briefs/RB9136/index1.html)

<sup>8</sup> [http://www.himsssehra.org/docs/EHRA\\_Benefits\\_032309.pdf](http://www.himsssehra.org/docs/EHRA_Benefits_032309.pdf)