

TRENDWATCH

Advanced Use of Health Information Technology to Support New Models of Care

A growing number of hospitals and health systems are implementing new models of care delivery and payment that focus on enhanced care coordination and value, such as accountable care organizations (ACOs), patient-centered medical homes, and bundled payment programs. These models emphasize quality and patient safety as essential components of value and depend on hospitals' and health systems' ability to collect and use electronic data through health information technology (IT) to coordinate care and evaluate progress toward achieving expected quality improvements and cost savings.

Over the last five years, hospitals and health systems across the board have made significant investments in health IT. These investments have greatly expanded the availability of electronic patient data to patients and to partnering care providers, as well as allowed for the integration of electronic health tools to improve care outcomes. Many new models of care require this enhanced functionality in order to coordinate care across settings of care. As such, hospitals and health systems participating in these models are somewhat more likely to have advanced

functions built into their health IT systems, such as computerized provider order entry (CPOE) and the integration of clinical guidelines for decision support.

This brief is the fourth in a series of issue briefs highlighting data from the 2016 AHA Annual Survey Information Technology Supplement for community hospitals collected November 2016 – April 2017.¹ This fourth brief compares the use of health IT by hospitals and health systems that are participating in new models of care with those that are not.² Hospitals and health systems are considered to be participating in new models of care if they reported having

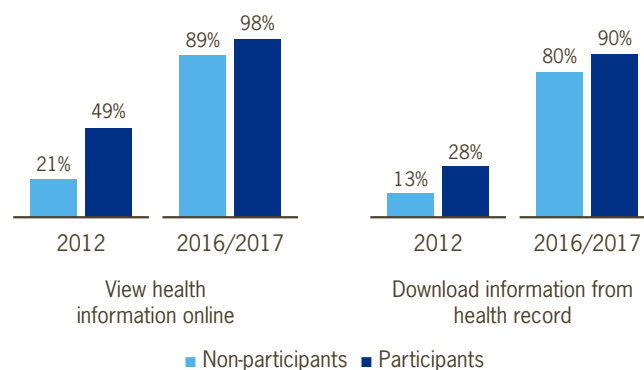
at least one of the following: an ACO, a medical home program, or participation in a bundled payment program. In the 2016/2017 survey, 41 percent of responding hospitals reported that they participated in new models of care, up from 19 percent of respondents in 2012.

Accessing and interacting with health data

The vast majority of hospitals and health systems give patients the ability to view and download their health data through the hospital's electronic health record (EHR), as discussed in

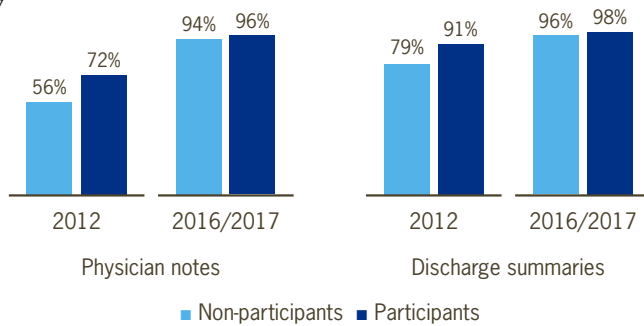
Patients of new model participants are more likely to be able to view and download their health information.

Chart 1: Patients' Ability to View and Download Data, 2012 and 2016/2017



Nearly all hospitals now support electronic clinical documentation of physician notes and discharge summaries.

Chart 2: Hospitals with Computerized Systems Allowing for Electronic Clinical Documentation Implemented Fully or in At Least One Unit, 2012 and 2016/2017



the first brief in this series from March 2018.³ This enables patients to play a more informed, active role in their health and health care. Since 2012, the overall number of hospitals and health systems providing this capability has increased dramatically across the board, but patients receiving care from a hospital or health system participating in new models of care are more likely to be able to access their information electronically (Chart 1). Ninety-eight percent of hospitals and health systems participating in at least one new model of care offer patients the ability to view their information electronically and 90 percent offer them the ability to download their health information, compared to 89 percent and 80 percent (respectively) in hospitals and health systems that are not participating in a new care model.

Clinical documentation tools in health IT are widely prevalent in hospitals and health systems (Chart 2). Ninety-eight percent of hospitals and health systems participating in new models have implemented electronic clinical documentation of discharge summaries, compared to 96 percent of those not participating in new models. Ninety-six percent have implemented electronic documentation of physician notes,

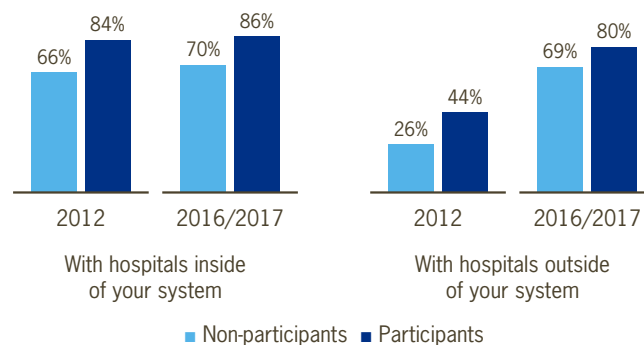
compared to 94 percent of those not participating in new models.

Sharing data with other providers for patient care

New payment and delivery models incentivize care coordination as a key component of higher quality, more efficient care. The summary of care record is a critical piece of data. As discussed in the second brief in this series,⁴ sharing of information with hospitals and ambulatory care providers outside of the system has increased dramatically over the past several years, with most hospitals and health systems reporting they now electronically share

The percentage of hospitals and health systems sharing records outside of a hospital system has improved significantly since 2012.

Chart 3: Hospitals' Ability to Share and Exchange Clinical/Summary Care Records with Other Hospitals, 2012 and 2016/2017



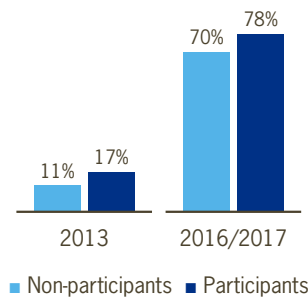
clinical or summary of care records⁵ with hospitals and ambulatory care providers both inside and outside of their own system. Notably, new model participants were much more likely to have the ability to share with hospitals outside their system in 2012 and have maintained that capability (Chart 3). Furthermore, patients in hospitals participating in new care models are more likely to be able to electronically transmit summaries of care to third-party providers than patients in hospitals not participating in new models (Chart 4). This may be the result of heightened attention to care coordination and physician relationships in new models of care.

Ensuring high-quality care

Many quality improvement efforts leverage health IT to improve communication and reduce the likelihood of errors, such as by including the physician order process in the health IT system. Hospitals and health systems have significantly increased their use of health IT for quality improvement and patient safety as system capabilities have expanded, as discussed in the third brief in this

Patients of new models of care participants are more likely to be able to electronically transmit summaries to third parties, though this capacity has expanded across the board since 2013.

Chart 4: Ability for Patients to Electronically Transmit Care/Referral Summaries to a Third Party, 2013 and 2016/2017



series.⁶ Hospitals and health systems participating in new models of care are somewhat more likely to use health IT for quality improvement activities, both in the delivery of patient care and in monitoring for overall trends (Chart 5). For example, 95 percent of new model hospitals have health IT systems that allow physicians to prescribe discharge medication orders electronically – compared to 85 percent of hospitals that are not participating in new models. CPOE of medications has been nearly universally adopted – 99 percent of new model hospitals have CPOE of medications, compared to 96 percent of hospitals that are not participating in new models.

High-quality care must be safe and effective. Clinical practice guidelines are recommended courses of action for providers to deliver safe and effective care based on evidence from research. When correctly developed and deployed, these guidelines can support the delivery of high-quality care by assisting provider decision-making and helping organizations assess the care being provided. Hospitals and health systems participating in new models of care are more likely to have integrated clinical guidelines for physician decision support into their health IT system and

to use health IT to assess adherence to clinical practice guidelines (Chart 6).

Delivery of health care services through health IT

There is growing interest in using health IT systems to facilitate the delivery of care, particularly by those hospitals and health systems participating in new models of care. Some functions, such as telehealth, may take the place of an office visit, allow access to specialists for emergency departments, or provide around the clock intensivist support to an intensive care unit. Almost

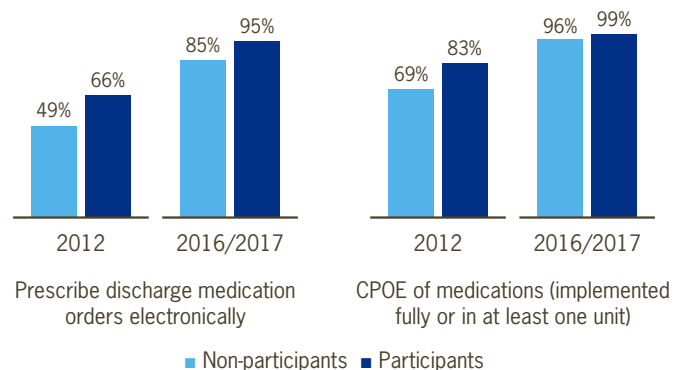
three-fourths of hospitals and health systems report that they have implemented or are beginning to implement telemedicine in at least one unit (Chart 7).⁷ Those participating in new models are more likely to offer telemedicine in at least one unit than those not participating in new models. Other health care service functions, such as requesting prescription refills, involve a service for an existing patient that may not require a full office visit. New model hospitals and health systems are much more likely to have health IT systems that allow patients to request prescription refills online, compared to hospitals and health systems that are not participating in new models.

Looking Ahead

Hospitals and health systems that are participating in new models of care, such as ACOs, patient-centered medical homes, and bundled payment programs, deploy more advanced uses of health IT to support success in the new models. This finding supports a policy approach that emphasizes value-based models over prescriptive requirements to use health IT in specific ways.

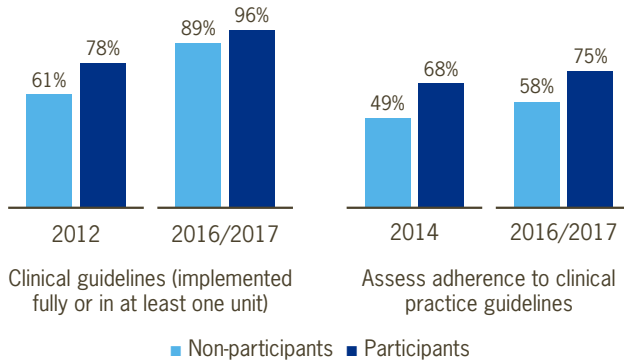
New model participants are more likely to have health IT systems that support electronic prescribing of discharge medication orders, while nearly all hospitals now support CPOE of medications.

Chart 5: Hospitals' Computerized Systems Allowing for Medication Management, 2012 and 2016/2017



Health IT systems for new model of care participants are more likely to have integrated clinical guidelines for decision support and monitoring.

Chart 6: Integration of Clinical Guidelines for Quality Improvement and Monitoring, 2012, 2014 and 2016/2017



These efforts are not without growing pains. Hospitals and health systems participating in new models are more likely to report barriers to the use of health IT for patient care, possibly because they are more likely to be using health IT and, therefore, more likely to encounter a barrier. One interesting exception is that those participating in new models are less likely to report workflow (i.e., typical process) to be a barrier. It may be that hospitals and health systems participating in new models more rapidly develop internal processes that support these advanced capabilities as part of daily practice.

other providers in that model, in both hospital and ambulatory care settings. Alternatively, it may be that hospitals in new models have had to focus on interoperability in order to meet reporting requirements that are directly linked to reimbursement for these models. New models also may drive expanded use of health IT for telehealth. For example, a hospital participating in an ACO may find that remote monitoring or counseling using telecommunications can be incorporated into the process of care through health IT and yield quality

improvements and savings over traditional methods of health care services delivery.

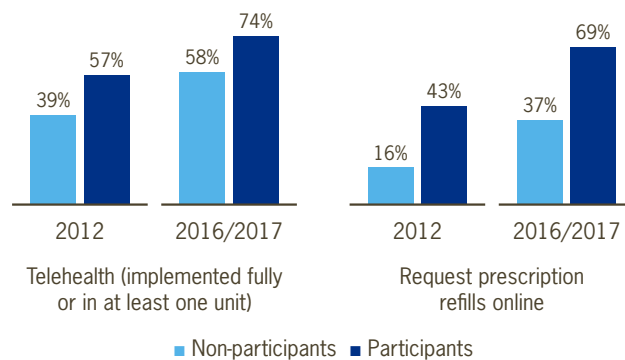
Adequacy and interoperability of health IT is a major concern for new models of care. A 2017 survey of ACOs found that ACOs needed more than an EHR to achieve their goals and, therefore, purchased additional technologies to plug into their existing systems, such as patient portals and decision-support tools.⁸ ACOs struggle to integrate data from multiple providers, although such integration is a core feature of the model.⁹

Looking ahead, hospitals and health systems that participate in new models of care will continue to help move the field toward higher value health care. Those that already participate in such models have more advanced health IT systems in place to support their efforts. As more hospitals and health systems implement these new models, it will be important to understand what health IT functions best support high-quality coordinated care and how they may be integrated into hospital practices in the most efficient and effective way.

Hospitals and health systems participating in new models also are less likely to report that they experience challenges exchanging information across different vendor platforms (data not shown). Interoperability is a core concern for many new models of care that rely heavily on the ability to exchange data among internal and external providers to support enhanced care coordination. It may be that hospitals and health systems participating in a particular new model are required to use a particular health IT system to coordinate with

Health IT systems at hospitals and health systems participating in new models of care are more likely to facilitate the delivery of patient care through functions like telehealth and prescription refills.

Chart 7: Access to Health Care Services Through Health IT, 2012 and 2016/2017



POLICY QUESTIONS

1. What features of new models of care drive greater adoption of advanced health IT functions?
2. How effective are health IT systems in supporting higher quality care and/or reducing costs within new models of care?
3. Do new models of care sufficiently reward the investment in health IT that may be necessary to participate in the model?
4. What are best practices for integration of health IT into hospital and health system operations to best support new models of care?
5. How can hospitals and health systems optimize both care delivery and their health IT systems to succeed in new models of care?

Sources

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5. For purposes of Meaningful Use, a clinical summary is an “after-visit summary that provides a patient with relevant and actionable information and instructions” that includes specific data elements. Centers for Medicare and Medicaid Services. Stage 2 Eligible Professional Meaningful Use Core Measures, Measure 8 of 17. November 2014. https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/downloads/Stage2_EPCore_8_ClinicalSummaries.pdf. Accessed Feb 8, 2018.
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