This report was prepared by Mathematica Policy Research Inc under contract to the Office of the National Coordinator for Health IT (ONC). The findings and conclusions of this report are those of the authors and do not necessarily represent the views of ONC or the U.S. Department of Health and Human Services.
MEANINGFUL USE INCENTIVE PAYMENTS—STAGE 1

- The May 2014 CMS incentive program report summarizes active registrations and provider payments under the Meaningful Use Program. Through May 2014, active registrations include 317,294 Medicare eligible professionals, 157,890 Medicaid eligible professionals, and 4,737 hospitals (of whom 4,311 are eligible for both Medicare and Medicaid incentives). This totals to 479,921 active registrations in May 2014. Almost all had previously been registered, with 2,250 new registrations in May 2014 (991 Medicare eligible professionals, 1,249 Medicaid eligible professionals and 10 hospitals) eligible for both forms of payment.
  - Eligible professionals
    - Total program-to-date payments were $6.4 billion through the Medicare program and $3 billion through the Medicaid program.
  - Hospitals
    - Total program-to-date payments were $14.6 billion, with $13.7 billion to hospitals that were jointly eligible for Medicare and Medicaid incentives. (The program requirements for eligible hospitals differ from those for eligible professionals in that eligible hospitals can receive incentives for both Medicare and Medicaid while eligible professionals must choose between the two programs if they qualify for both).
  - According to the CMS incentive program report, all 50 states, the District of Columbia and five territories are open for Medicaid registration. A CMS matrix (last updated in August 2013) provides links to states’ websites and additional detail on the dates states started different functions (e.g. disbursements and attestations).
  - So far almost all payments have been based on Stage 1 requirements. Through May 2014, Medicare spent $15.9 billion to eligible providers ($6.4 billion) and
hospitals ($9.5 billion) meeting Stage 1 requirements. There were 44 Medicare eligible professionals and 2 Medicare eligible hospitals meeting Stage 2 requirements with a total payout to date of $290,080.

- “Sequencing of EHR Adoption among US Hospitals and the Impact of Meaningful Use,” published in JAMA, assessed the sequence of EHR adoption across hospitals as reflected in 2008 American Hospital Association (AHA) data. Adler-Milstein, J. et al. find that patient demographic and ancillary results functions are adopted first, while physician notes, clinical reminders, and guidelines are adopted last. However, there is variation across hospital types and Meaningful Use Stage 1 may be changing this sequence by placing a higher priority on adoption of clinical guidelines and medication computerized provider order entry.

- On June 27, 2014, the American Medical Association (AMA) and the Medical Group Management Association (MGMA) sent a joint letter to CMS asking for the Meaningful Use hardship exemption deadline for eligible professionals be extended (the current deadline is July 1, 2014).

### STAGE 2 MEANINGFUL USE INCENTIVE AND CERTIFICATION REQUIREMENTS

- On April 1, 2014, the Healthcare Information and Management Systems Society (HIMSS) posted to their website a set of recommendations to CMS for increase the number of eligible professionals and eligible hospitals attesting to Meaningful Use Stage 2 using a 2014 certified EHR. Recommendations include extending the first year of the Stage 2 attestation period for eligible providers to April 2015 and eligible hospitals to June 2015.

- At the April 8, 2014 Health IT Policy Committee meeting, best practices recommended by the Privacy and Security Tiger Team were approved for transmittal to ONC. These best practices would serve as guidelines for patients' proxies to view, download and transmit their health data under Stage 2.

- At the May 6, 2014 Health IT Policy Committee meeting, a representative from CMS presented data on Meaningful Use Stage 2 registrations and attestations. Through April 2014, 50 eligible professionals and four eligible hospitals attested to Stage 2. A total of 66 hardship exemptions were granted.

- On May 16, CMS published in the Federal Register a notice outlining a proposed plan to create a database that tracks public health agencies' ability to receive EHR data under Stage 2. CMS accepted public comments on this proposed database till June 16, 2014. The American Hospital Association (AHA) sent a June 12, 2014 letter to the Office of Management and Budget supporting this proposal and urging the agency to create this database as soon as possible.

- On May 20, 2014, HHS published a proposed rule that would extend Stage 2 of the Meaningful Use program by one year (through 2016). iHealthBeat, May 21, 2014 In response to the proposed rule, the American Medical Association (AMA) released a
The American Medical Association expressed concern that changes to the Meaningful Use program timeline will not address their concern that the program requirements and penalties discourage eligible providers from adopting health IT. They recommend changes to the Meaningful Use program, including a removal of the “all-or-nothing approach” in Stages 1-3 and replacing it with a 75% pass rate. Meanwhile, the National Partnership for Women & Families, in their statement, said that they are disappointed that the Stage 2 extension would mean that patients will have to wait longer to realize many of the benefits of health IT.

DEVELOPMENT OF STAGE 3 MEANINGFUL USE REQUIREMENTS

- “Capturing Social and Behavioral Domains in Electronic Health Records” is the first part of a two-part Institute of Medicine study that aims to identify domains and measures that capture the social determinants of health, in the effort to inform the development for Meaningful Use Stage 3. [iHealthBeat, April 9, 2014](#)

- “A Robust Health Data Infrastructure” is a report prepared for the Agency for Healthcare Research and Quality by the MITRE Corporation that urges CMS to use Stage 3 as an opportunity to create “truly interoperable health data infrastructure.”

REGIONAL EXTENSION CENTERS

- On April 30, 2014, HIMSS released findings from its 2014 survey of REC organizations. The analysis is based on responses from 37 of the 62 RECs nationwide. Most RECs reported that their federal funding is going to run out by the end of 2014. However, three quarters of the RECs expect to remain operational at least through 2014 by using a combination of no-cost extensions, state funds and strategic partnerships. Financial considerations and health care reform were viewed as most significant influences on RECs’ future development.

AVAILABILITY OF CERTIFIED PRODUCTS AND THE VENDOR MARKET

- On April 22, 2014, HIMSS Electronic Health Record Association (EHRA) sent a letter to ONC expressing concern that the timeline outlined in the proposed Voluntary 2015 Edition EHR Certification Criteria is not feasible. EHRA says that the timeline would give them less than one year to design and develop software for the 2015 Edition and for customers to use it. EHRA recommends that ONC relabel the voluntary criteria for 2016 instead of 2015. The AHA also sent a letter to ONC suggesting that the agency focus on studying the experience to date with existing certification criteria rather than introducing voluntary criteria.

- On May 13, 2014, HHS announced the approval of the American National Standards Institute (ANSI) for a second term as the accreditor of ONC’s health IT certification program. Each term lasts for three years.
PRIVACY AND SECURITY

- On May 27, 2014, HIMSS sent a letter to ONC with feedback on the Security Risk Assessment Tool (SRAT). This tool is designed to walk providers through each Health Insurance Portability and Accountability (HIPAA) requirement to help ensure that all security requirements are in place. HIMSS provided some suggestions for improvement, including some features to make the tool more user friendly.

HEALTH INFORMATION EXCHANGE

- In an April 8, 2014 blog post Ed Park, athenahealth’s Executive Vice President and Chief Operating Officer communicated disappointment in the Office of Inspector General’s policy change on transaction-based pricing for health information exchange. HHS previously allowed this practice but changed its position in April 2014.

- In April 2014, ONC, the Federal Communications Commission (FCC), and the Food and Drug Administration (FDA) released a draft proposal for creating a risk-based health IT regulatory framework and a Health IT Safety Center that promotes patient safety by sharing best practices. In May 2014, the three agencies hosted a three-day public meeting to gather feedback on the proposal. iHealthBeat, May 16, 2014 On June 3, 2014, Fred Upton (R-MI), Joseph Pitts (R-PA), Marsha Blackburn (R-TN), and Greg Walden (R-OR) sent National Coordinator for Health IT Karen DeSalvo a letter in response to this proposal expressing concern over ONC’s authority to regulate health IT products and questioned the creation of a Health IT Safety Center. iHealthBeat reports that on June 9, 2014, ONC hosted a panel of stakeholders to discuss the development of the Health IT Safety Center.

- In May 2014, Practice Fusion announced the availability of what it characterized as the “nation’s largest real-time health care database.” Built upon EHR data, it contains records from 112,000 physicians seeing over 250,000 patients a day. De-identified clinical data are available publicly in both a no-cost and premium (paid) version to support population management and other uses. iHealthBeat, May 27, 2014

- A May 2014 ONC data brief titled “Health Information Exchange Among US Non-federal Acute Care Hospitals: 2008-2013,” by Swain, M. et al., finds that electronic exchange by non-federal acute care hospitals with outside providers increased 51% since 2008 and that, in 2013, six out of ten hospitals in the country exchange health information with providers outside of their health system. Author Swain and ONC Interoperability and Exchange Portfolio Manager Erica Galvez co-wrote a May 5, 2014 Health IT Buzz Blog post sharing some information about the new data brief.

- In June 2014, ONC released “Connecting Health and Care for the Nation: A 10-Year Vision to Achieve an Interoperable Health IT Infrastructure.” National Coordinator for Health IT Karen DeSalvo wrote a Health IT Buzz Blog post to introduce the 10-year plan. iHealthBeat reports that the College of Healthcare Information Management (CHIME) Director of Public Policy said the plan needs to get “a little bit more down into the weeds” while the Health IT Now Executive Director said the plan is “long overdue.”
• AcademyHealth’s Annual Research Meeting (ARM) was held June 8-10, 2014. ARM included a number of health IT-themed sessions, including a panel on June 10, 2014 titled “Barriers and Facilitators Shaping the Health Information Exchange Landscape: Findings from the HITECH National Program Evaluation.” This panel focused on preliminary findings from ONC evaluation and analytical work related to interoperability.

• On June 24, 2014, the House Energy and Commerce Committee held a roundtable on digital health care, specifically discussing the potential next steps for Congress to connect health IT advancements with regulatory policies. Roundtable participants included athenahealth CEO Jonathen Bush, The Cleveland Clinic CIO Martin Harris, and West Health CMO Joseph Smith, among others.

• A June 27, 2014 Health IT Buzz Blog post highlights the completion of a pilot project in which a group of states (Alabama, Florida, Kentucky, Michigan, New Mexico, Nebraska, and Iowa) exchanged electronic behavioral health information via Direct.

WORKFORCE PROGRAMS

• The Bureau of Labor Statistics released data showing that the number of health information technician jobs will increase by 41,100 by 2022. Health information technicians help to ensure that data in both paper and electronic systems are accurate, categorized, and stored securely.

PROVIDER EHR ADOPTION, OTHER SOURCES OF SUPPORT, AND ISSUES

• An April 8, 2014 Health IT Buzz Blog post highlighted Park Rx, a National Park Service public health initiative that allows providers to link their EHR to a database of parks in their area. Providers then use this database to electronically prescribe patients to use outdoor parks for exercise.

• In April 2014, HIMSS released its “2014 U.S. EHR Governance Study.” Among the findings from the survey are that 60% of health care organizations employ a formal EHR governance structure and that more than 60% of these organizations have a multidisciplinary advisory board or committee to oversee adherence to the structure.

• In April 2014, the House passed a two year appropriations bill (HR 4486) that included a provision which would freeze 75% of the funding that was requested by Department of Veterans Affairs’ for their EHR. The bill states that the freeze will cease when the VA demonstrates advancements in EHR interoperability with the Department of Defense. iHealthBeat, May 1, 2014

• A May 2014 ONC data brief titled “Adoption of Electronic Health Record Systems Among U.S. Non-Federal Acute Care Hospitals: 2008-2013,” by Charles, D. et al., finds that, in 2013, 59% of hospitals adopted of EHRs, up 34% since 2012. They also find that EHR adoption continues to vary by state, with Hawaii, South Dakota, and North Dakota in the lead. The authors also find that 14 states show rates of hospital EHR adoption that are statistically above the national average and 11 states that are statistically below.
• “Blue Button Use by Patients to Access and Share Health Record Information Using the Department of Veterans Affairs’ Online Patient Portal,” published in JAMIA, finds that 33% of “My HealtheVet” patient portal users are also Blue Button users. The authors say that more efforts to raise awareness of Blue Button need to be carried out.

• “Trends in Electronic Health Record System Use Among Office-based Physicians: United States, 2007-2012,” by Hsiao, C et al., finds that physician-reported use of EHRs increased 37% between 2007 and 2012 (34.8% in 2007, 71.8% in 2012).

• “The Essential Role of Laboratory Professionals: Ensuring the Safety and Effectiveness of Laboratory Data in Electronic Health Record Systems” is a Centers for Disease Control and Prevention (CDC) report that identifies ways laboratory professionals can support health IT: 1) engagement (laboratory professionals can participate in development of EHRs at local and national levels); 2) data integrity and usability (laboratory professionals can guide developers in these areas); and 3) innovation (laboratory professionals can work with stakeholders to reduce laboratory data-related errors in the use of EHRs).

• “Health IT for Public Health Reporting and Information Systems” is an ONC issue brief by Lauren Wu that describes electronic public health reporting. Wu finds that there is a lack of consistency in terminology and data definitions across EHRs and suggests that infrastructure be created that links and standardizes EHR data.

• “How is the Electronic Health Record Being Used? Use of EHR Data to Assess Physician-level Variability in Technology Use,” published in the Journal of the American Medical Informatics Association, examines how providers at the Institute for Family Health, a network of federally qualified health centers, vary in their use of the EpicCare EHR product. Ancker, J. et al. find that providers vary in how often they update patient problem lists and how they respond to EHR alerts.

• The HHS Office of Inspector General’s (OIG) semi-annual report to Congress for the October 2013 to March 2014 period was released. The OIG says that CMS must take more action to identify fraud in EHR use. OIG provides some recommendations for CMS, including the development and release of guidance for providers on how to properly use copy and paste functions in EHRs. iHealthBeat, May 29, 2014

• On May 13, 2014, National Nurses United (NNU) started a campaign to alert the public to dangers from the use of health IT. The NNU, a union and professional association for registered nurses, argues that the public should demand care from registered nurses. They believe that EHRs and other health IT tools are eroding clinical standards of care, and are unreliable, leading to errors in patient care.

• Several activities and events on telehealth occurred this quarter:

  o The Federation of State Medical Boards released a model policy for the appropriate use of telemedicine that is intended to serve as a guideline for health care providers and staff using telemedicine. The American Telemedicine Association sent an April 21, 2014 letter suggesting some changes to the model
policy, such as removing references to telephone and e-mail consultations as part of the practice of telemedicine.

- The American Telemedicine Association (ATA) is developing an accreditation program for telehealth services, announced at the ATA conference in May 2014. *Medcity, May 20, 2014*

- Ernst & Young released “Shaping Your Telehealth Strategy,” a guide for organizations that are looking to develop a sustainable telehealth program.

- On May 1, 2014, representatives from University of Michigan Health System, Rand Corporation, Lancaster General Health, Parkinson’s Action Network, and American Well testified at the House Energy and Commerce Health Subcommittee hearing. Stakeholders advocated for telehealth services to be included for Medicare reimbursement. Health IT Now made a statement communicating its support of the discussion on telehealth at the Subcommittee meeting. Related, a June 9, 2014 letter from to HHS Secretary Sylvia Mathews Burwell from the Alliance for Connected Care and other health care organizations states that the lack of Medicare reimbursement for telehealth services is limiting accountable care organizations in serving their populations in less costly care settings by using telehealth.

- “Telemedicine and e-Health” is a May 2014 study by Doarn, C. R. et al., published in the journal *Telemedicine and e-Health*, that finds that there are seven different definitions of telehealth being used by 26 government agencies across the country. The authors recommend that one definition be developed in order to ensure that telemedicine is being used consistently in the country.

- In May 2014, CMS issued a final rule reforming some regulations that have been identified as burdensome or unnecessary. For example, under the final rule, the requirement that a physician be held to a prescriptive schedule onsite has been eliminated (the final rule mentions telehealth services’ role in this decision). CMS estimates that providers will save $660 million annually under these changes.

- In a June 23, 2014 FDA Voice blog post, Dr. Janet Woodcock, Director of the FDA’s Center for Drug Evaluation and Research, introduces Sentinel System. This is a pilot project under the FDA in which the agency is using EHR data to examine the safety of FDA-regulated medical products.

**PATIENT ENGAGEMENT**

- In April 2014, the ECRI Institute released “Top 10 Patient Safety Concerns for Healthcare Organizations.” *iHealthBeat* reports that among the 10 top safety issues for 2014 are data integrity failures with IT systems, which can be from data entry errors in EHRs and the simultaneous use of paper records and EHRs.
In April 2014, a group of health systems and physicians in Oregon and Washington announced that they will give more than one million patients access to their personal EHR data through the OpenNotes program. *EHR Intelligence, April 8, 2014*

A June 2014 report titled “Demonstrating the Effectiveness of Patient Feedback in Improving the Accuracy of Medical Records,” written by Dullabh, P. et al., finds that engaging patients, via an online feedback system, to provide comments on their medical records can result in greater medical record accuracy.

**HEALTH IT AND HEALTH DELIVERY REFORM**

A new KLAS report titled “Physician ACOs 2014: Variations on the Accountable Care Theme” summarizes findings from interviews with 46 ACOs about their health IT software. *iHealthBeat* reports findings showing that 68% of ACOs surveyed say that they use a third-party vendor vs. an EHR vendor because the former outperforms EHR products in meeting ACO needs. The most popular third-party vendor is Optum.

**EFFECTIVENESS OF HEALTH IT**

“Meaningful Use and Quality of Care,” published in *JAMA Internal Medicine*, examined whether or not becoming a Stage 1 “meaningful user” at Brigham and Women’s Hospital impacts quality of care. Lipika, S. et al. examine quality scores reflecting seven different potential clinical impacts, including asthma, coronary artery disease, depression, diabetes, and hypertension. Their data cover a three month period in 2012. With mixed findings, they do not find evidence to conclude that becoming a Stage 1 “meaningful user” improves quality of care. *iHealthBeat, April 16, 2014*

“Electronic Prescribing: Improving the Efficiency and Accuracy of Prescribing in the Ambulatory Care Setting,” published in *Perspectives in Health Information Management*, is a literature review conducted by Porterfield, A. et al. The authors find that medical clinics and hospitals may experience a variety of benefits when e-prescribing, such as fewer prescription errors and greater medication adherence by patients. However, there are also barriers to adopting the technology, such as the cost of implementation (which includes both the costs of the system and training staff to use the system).

“Care Everywhere, a Point-to-Point HIE Tool,” by Winden, T.J. et al, was published in *Applied Clinical Informatics*. The authors assessed the potential impact of Care Everywhere, a health information exchange tool developed by Epic, on patient care in four Emergency Departments. They found that, through use of the tool, 560 unnecessary diagnostic procedures were avoided and that 28 cases of drug seeking behavior were identified. The authors conclude that Care Everywhere has the potential to increase efficiency in Emergency Departments.

“What Do Physicians Read (and Ignore) in Electronic Progress Notes?,” published in *Applied Clinical Informatics*, identifies physicians’ visual attention patterns when reading electronic notes. Via the use of an eye-tracking device, Brown, P.J. et al. found that physicians paid more attention to the “Impression and Plan” section of electronic notes and less attention to medication lists and laboratory results.
• “The Patient-Centered Medical Home, Electronic Health Records, and Quality of Care,” published in *Annals of Internal Medicine*, compares three groups of providers to assess the impact of EHRs: 1) non-medical home providers using paper records; 2) non-medical home providers using EHRs; and 3) medical home providers using EHRs. Kern, L. et al. find that quality improvement is 6% and 7% higher among medical home providers using EHRs when compared to non-medical home providers using EHRs and non-medical home providers using paper records, respectively.

• “Impact of an Intensive Care Unit Telemedicine Program on Patient Outcomes in an Integrated Health Care System,” published in *JAMA Internal Medicine*, assessed the impact of a telemedicine program on 30-day mortality rates and patient length of stay in eight intensive care units. Boulos, S. Nassar et al. did not find evidence that the telemedicine program led to decreased mortality rates or reduced patient length of stay.

• “Telehealth Services in the United States Department of Veterans Affairs (VA),” by Darkins, A., is a VA report that finds that the use of home telehealth services by patients reduced bed days of care by 59% and hospital admissions by 35%. Health care expenses for veterans also dropped by 4% after the use of telehealth services. *iHealthBeat, June 20, 2014*

RELATED FEDERAL POLICY INITIATIVES

• On May 22, 2014, HHS announced prospective winners of the Health Care Innovation Award. Several of the winners are working on projects that use or advance the use of health IT in health care. *iHealthBeat, May 27, 2014*

OTHER (CONTEXTUAL ETC)

• At the April 8, 2014 Health IT Policy Committee meeting, Karen DeSalvo, National Coordinator for Health IT, proposed reorganization of the Health IT Policy Committee's workgroups. *iHealthBeat* reports that the new structure would reposition the workgroups around four main areas: 1) advanced health models and Meaningful Use; 2) implementation, usability, and safety for health IT; 3) interoperability and health information exchange; and 4) strategic planning for health IT. At the April 24, 2014 Health IT Standards Committee meeting, Doug Fridsma of ONC presented similar restructuring for the Health IT Standards Committee's workgroups. The Health IT Standards Committee approved the outline for the reorganization.

• On May 30, 2014, Karen DeSalvo, National Coordinator for Health IT, released a memo outlining organizational changes at ONC. The reorganization is made in the effort of efficiency, “combining similar functions, elevating critical priority functions, and providing a flatter and more accountable reporting structure.” Details on the reorganization were also published in the *Federal Register*.

• On June 5, 2014, Sylvia Mathews Burwell was confirmed as Secretary of Health and Human Services. Burwell was previously the Director of the Office of Management and Budget. She assumes the role from Kathleen Sebelius, who resigned. *iHealthBeat, April 11, 2014*
On May 30, 2014, President Obama accepted the resignation of Eric Shinseki. Shinseki was the Secretary of Veterans Affairs. He resigns after it was found that some Department of Veterans Affairs employees used health IT tools to manipulate veterans’ wait times for care. *The Washington Post, May 30, 2014*