Department of Health and Human Services OFFICE OF INSPECTOR GENERAL

PROGRESS IN ELECTRONIC HEALTH RECORD IMPLEMENTATION THROUGH HRSA GRANTS TO HEALTH CENTER CONTROLLED NETWORKS



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EXECUTIVE SUMMARY: PROGRESS IN ELECTRONIC HEALTH RECORD IMPLEMENTATION THROUGH HRSA GRANTS TO HEALTH CENTER CONTROLLED NETWORKS, OEI-09-11-00380

WHY WE DID THIS STUDY

One goal of the Health Resources and Services Administration (HRSA) is to ensure that all of its health centers implement health information technology (HIT), including electronic health record (EHR) systems. Since 2007, HRSA has awarded \$176.9 million in grants to networks of health centers known as health center controlled networks (HCCNs) to support this goal through the acquisition, implementation, and "meaningful use" of EHR systems. To assess the grants' contributions toward HRSA's HIT goal, we assessed health centers' progress in using HRSA grants—funded by the American Recovery and Reinvestment Act (ARRA)—to implement EHR systems that support meaningful use. HRSA did not require demonstration of meaningful use as a condition of the grants, but has stated that Stage 1 meaningful use objectives, as set forth by the Centers for Medicare & Medicaid Services, are a reasonable baseline to assess health center progress in implementing EHR systems. We also did this study to determine whether health centers face challenges related to the financial sustainability of their EHR systems.

HOW WE DID THIS STUDY

We surveyed health centers that participated in HRSA's ARRA-funded HCCN grant projects that supported EHR implementations and enhancements. Using survey responses, we determined the extent to which health centers established the capability for the Stage 1 meaningful use objectives. We also determined whether health centers reported facing challenges related to the financial sustainability of their EHR systems. To supplement the survey responses, we reviewed grantee progress reports and conducted visits at 11 health centers.

WHAT WE FOUND

Most health centers established the capability for meaningful objectives related to capturing data. However, fewer health centers established the capability for meaningful use objectives related to sharing data. Establishing the capability for objectives relating to sharing data often requires health centers to incur additional EHR-related costs. Although 76 percent of health centers reported facing financial sustainability challenges, grantee progress reports contained limited information related to the financial sustainability of EHR systems at health centers.

WHAT WE RECOMMEND

We recommend that HRSA (1) use data to understand progress towards meaningful use objectives and to provide guidance and technical assistance to health centers, (2) ensure that HCCN grantees provide information on the financial sustainability of EHR systems at health centers, and (3) examine the feasibility of collecting information directly from health centers regarding the financial sustainability of their EHR systems. HRSA concurred with all of our recommendations.

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OBJECTIVES

- To assess health centers' progress toward implementing electronic health record (EHR) systems that support "meaningful use" through Health Resources and Services Administration (HRSA) Health Center Controlled Network (HCCN) grants funded by the American Recovery and Reinvestment Act (ARRA).
- 2. To determine whether health centers face challenges related to the financial sustainability of their EHR systems that were implemented or enhanced with HRSA's ARRA-funded HCCN grants.

BACKGROUND

Between 2007 and 2013, HRSA awarded \$176.9 million in health information technology (HIT) grants, with the majority of this amount coming from ARRA. These grants support HRSA's goal to ensure that all of its health centers implement HIT, which includes the implementation and meaningful use of EHR systems. EHR systems enable users to record patient health information and medical history electronically instead of using paper records. Professionals at health centers may become "meaningful users" of EHR systems if they meet a set of meaningful use objectives as defined in Federal regulations. These objectives encompass capabilities that are meant to improve health care quality and efficiency by electronically capturing and sharing data. Health centers must first establish these capabilities so that professionals can become meaningful users by using the capabilities.

HRSA HIT Grants

To support the implementation and meaningful use of EHR systems at health centers, HRSA awarded its HIT grants to health center controlled networks (HCCN). An HCCN is a group of health centers that use group purchasing power and shared resources, infrastructure, and training to adopt and implement HIT in a more cost-efficient manner.⁵ Although

¹ HRSA awarded \$35.3 million from 2007 through 2008; \$120.5 million from 2009 through 2010 (with funds made available through ARRA § 3011, amending Titles XVIII and XIX of the Social Security Act); and \$21.1 million in fiscal year 2013 (with funds made available through the Patient Protection and Affordable Care Act).

² HRSA-funded health centers provide comprehensive primary care services to medically underserved communities and vulnerable populations. Public Health Service Act § 330 (codified at 42 U.S.C. § 254b).

³ 77 Fed. Reg. 72870 (Dec. 6, 2012).

^{4 42} CFR § 495.6.

⁵ HRSA, Affordable Care Act—HCCNs, HRSA-13-327, June 19, 2012, pp. 1–2.

HCCNs received the funding, the HIT grants supported projects for the HCCNs' member health centers.

EHR Implementation Grants. Between 2009 and 2010, HRSA awarded \$98.9 million in ARRA-funded grants to 43 HCCNs for EHR implementation projects.⁶ (In this report, we refer to these grants as EHR implementation grants.) A total of 260 health centers, varying in size and location (i.e., rural or urban), participated in EHR implementation grant projects through their respective HCCNs.⁷ Some of these health centers were already using an EHR system prior to participating in grant projects. The EHR implementation grants funded two types of projects to support meaningful use at health centers: new EHR implementation projects and—to expand the capabilities of existing EHR systems—EHR enhancement projects.⁸ Some HCCNs received EHR implementation grants to support both types of projects at one or more of their health centers. For example, a health center participating in both types of projects may have implemented an EHR system at one site and expanded the capabilities of its EHR system at another site.

<u>Financial Sustainability</u>. Once an EHR system is implemented, there are ongoing operational and maintenance costs related to financially sustaining the system and implementing the capabilities to support meaningful use. These ongoing costs can include hardware and software license/maintenance agreements and upgrades, ongoing staff training, and information technology (IT) support fees. In addition, hiring new staff—such as IT operations staff, clinical data analysts, or application analysts—can add to the ongoing costs. The estimated average yearly costs of an EHR system range from \$4,000 to \$8,000 per professional, depending on the type of EHR system.

⁶ We did not include \$21.6 million of the \$120.5 million in grant funds made available through ARRA because they were only for HIT innovation projects.

⁷ The number of HRSA-funded health centers that participated in EHR implementation grant projects is based on Office of Inspector General (OIG) verification with HCCN grantees.

⁸ Examples of enhancement projects include integrating with State-wide Health Information Exchanges, expanding data reporting capabilities, implementing a patient portal, and creating data registries.

⁹ Office of the National Coordinator for Health Information Technology (ONC), *How much is this going to cost me*? Accessed at http://www.healthit.gov/providers-professionals/faqs/how-much-going-cost-me on September 16, 2013.

¹⁰ Costs vary depending on whether centers select an onsite EHR system or Web-based EHR system. Web-based EHR systems typically require providers to pay a fixed monthly subscription cost. Onsite EHR systems typically require providers to pay for ongoing costs to support and manage onsite data servers. ONC, *How much is this going to cost me*? Accessed at http://www.healthit.gov/providers-professionals/faqs/how-much-going-cost-me on September 16, 2013.

HRSA awarded the EHR implementation grants as one-time funding; the grants were not intended to cover the ongoing maintenance and operational costs. HRSA expects HCCNs and their participating health centers to have a plan for how grant projects will be financially sustained during and after the period of Federal grant funding (grant period), particularly for ongoing maintenance and operational costs.¹¹

Grantee Progress Reports. For EHR implementation grants, HRSA required HCCN grantees to submit quarterly progress reports during the grant period. During the September 2011 grant period, HRSA updated the format of the grantee progress reports. The updated format includes (1) a narrative section to collect information on any challenges—whether related to financial sustainability or to other issues—experienced by HCCNs and participating health centers to date and (2) another field to collect sustainability plans. HRSA asked HCCNs to describe their sustainability plans because it expects HCCNs and their participating health centers to plan how grant projects will be sustained during and after the grant period.

Meaningful Use of EHR Systems

HRSA awarded the EHR implementation grants in 2009 and 2010 with the goal of implementing EHR systems to prepare health centers for meaningful use, without any requirement to meet any specific meaningful use objectives because such objectives had not yet been established.¹² HRSA required that grant funds be used only to implement or enhance an EHR system certified by an organization recognized by the Secretary of Health and Human Services.^{13, 14} Such certification provides assurance that the EHR system offers the necessary electronic capability to help health center professionals become meaningful users (i.e., demonstrate meaningful use objectives as defined in Federal regulations).¹⁵

CMS is defining and rolling out the meaningful use objectives in three stages; each stage is adding increased capabilities to improve patient care,

¹¹ HRSA, HIT Implementation for HCCNs, HRSA-10-154, December 9, 2009, p. 28.

¹² HRSA announced the latest funding opportunity for the ARRA-funded EHR implementation grants in December 2009, and applications were due in February 2010. The Centers for Medicare & Medicaid Services (CMS) did not finalize the definitions and requirements for Stage 1 meaningful use until July 2010. HRSA, *HIT Implementation for HCCNs*, HRSA-10-154, December 9, 2009; 42 CFR § 495.6.

¹³ HRSA, HIT Implementation for HCCNs, HRSA-10-154, December 9, 2009, p. 6.

¹⁴ ONC issued the initial set of certification criteria on January 13, 2010, which established the capabilities and related standards that certified EHR systems needed to support the achievement of the proposed Stage 1 meaningful use rule. ONC defined EHR certification requirements and the process for certification in Federal regulations. 45 CFR pt. 170, subparts C–E.

¹⁵ 42 CFR § 495.6.

enhance care coordination, and increase patient engagement. For each meaningful use objective, CMS defines a specific measure that must be met to demonstrate the objective. In July 2010, CMS defined the Stage 1 meaningful use objectives and their associated measures. These objectives set the baseline for two types of capabilities:

- capturing data (i.e., electronically capturing health information in a structured format¹⁷ and using it for evidence-based clinical decisions) and
- sharing data (i.e., electronically sharing health information for care coordination, patient engagement, and public health reporting).¹⁸

In September 2012, CMS defined the Stage 2 meaningful use objectives, which expand on Stage 1 with a focus on sharing data for continued quality improvement.¹⁹ Stage 2 meaningful use objectives became effective on January 1, 2014 for professionals.²⁰ CMS expects to define Stage 3 meaningful use objectives related to improved health outcomes in 2016.²¹

Under the Medicaid EHR incentive program, a professional who is eligible for the program (eligible professional)²² and demonstrates all three stages of meaningful use can receive incentive payments totaling \$63,750 over 6 years.²³ Eligible professionals who register for the Medicaid EHR incentive program have until 2017 to demonstrate Stage 1 meaningful use to receive the maximum amount of incentive payments.

¹⁶ 75 Fed. Reg. 44314 (July 28, 2010).

¹⁷ "Structured data" is another way of referring to data that are entered into a specific field, as opposed to "free text" in a chart note. Structured data enable patient information to be easily retrieved and transferred. CMS, *Certified EHR Technology*. Accessed at http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Certification.html on April 4, 2013.

¹⁸ ONC, *How to Implement EHRs* — *Step 5: Achieve Meaningful Use.* Accessed at http://www.healthit.gov/providers-professionals/ehr-implementation-steps/step-5-achieve-meaningful-use on September 16, 2013.

¹⁹ 77 Fed. Reg. 53968, 53970 (Sept. 4, 2012). When CMS finalized Stage 2 meaningful use objectives, it included minor changes to Stage 1 that take effect outside our period of review.

²⁰ CMS, *Stage2*. Accessed at http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Stage2.html on January 22, 2014.

²¹ ONC, *Meaningful Use Definition & Objectives*. Accessed at http://www.healthit.gov/providers-professionals/meaningful-use-definition-objectives on September 16, 2013.

²² 42 CFR § 495.304(b). Eligible professionals include physicians, nurse practitioners, certified nurse midwives, dentists, and physician assistants who may participate in the Medicaid EHR incentive program.

²³ 42 CFR § 495.310.

Stage 1 Meaningful Use. After CMS finalized the Stage 1 meaningful use objectives, HRSA stated that the Stage 1 mandatory objectives ("core objectives") are a reasonable baseline to assess health center progress on implementing EHR systems.²⁴ The Stage 1 meaningful use core objectives include 15 objectives, of which 9 are related to capturing data and 5 are related to sharing data.²⁵ Stage 1 also includes 10 additional objectives ("menu objectives"). An eligible professional who is participating in the Medicaid EHR incentive program would need to demonstrate Stage 1 meaningful use by meeting the measures for all 15 of the core objectives and 5 of the 10 menu objectives, 1 of which must be a public health objective.²⁶ Although a health center may have established the capability for Stage 1 meaningful use, it is up to the individual eligible professional to meet the measures for the objectives to receive incentive payments. See Appendix A for a list of the core and menu objectives for Stage 1 meaningful use, along with the type of capability the objectives represent (i.e., capturing data or sharing data) and their associated measures for eligible professionals.

METHODOLOGY

Scope

In July 2012, we surveyed health centers that fell within the scope of our study—namely, health centers that participated in EHR implementation grant projects and that are funded by HRSA through section 330 of the Public Health Services Act. These health centers are associated with the 55 EHR implementation grants that HRSA awarded to 43 HCCNs with funds made available through ARRA. To supplement survey responses, we reviewed grantee progress reports submitted to HRSA by HCCNs in 2011 and 2012 and we conducted site visits at a purposive sample of 11 health centers from May to September 2012.

To assess health centers' progress toward implementing EHR systems that support meaningful use, we examined the extent to which health centers reported having the capability for Stage 1 meaningful use objectives, which set the baseline for capturing and sharing data. We use the Stage 1

²⁴ HRSA, *UDS Reporting Instructions for Section 330 Grantees*, January 2011, p. 114. Accessed at http://bphc.hrsa.gov/healthcenterdatastatistics/reporting/2010manual.pdf on August 25, 2011; HRSA, *UDS Reporting Instructions for Section 330 Grantees*, December, 2012, p. 153. Accessed at http://www.bphcdata.net/docs/uds_rep_instr.pdf on July 23, 2013.

²⁵ 42 CFR § 495.6. The core objectives also include one objective related to ensuring the privacy of health information.

²⁶ Ibid. The public health objectives for eligible professionals include two objectives related to submitting data to public health agencies (immunization registries data and syndromic surveillance data).

meaningful use objectives, as initially finalized by CMS, because HRSA stated that this set of Stage 1 core objectives is a reasonable baseline to assess health center progress in implementing EHR systems.

We also determined whether health centers had reported facing challenges related to the financial sustainability of their EHR systems.

Data Collection and Analysis

Health Center Survey. We administered a survey to health centers to collect information on their progress toward implementing EHR systems that support meaningful use and any issues related to the financial sustainability of their EHR systems. To identify our survey population, we obtained from HRSA a list of HCCNs that received an EHR implementation grant(s) and these HCCNs' section 330-funded health centers that participated in EHR implementation grant projects. However, HRSA could not confirm that the list was complete, as participating health centers may leave or join HCCNs. Therefore, we contacted all 43 HCCNs on HRSA's list and asked them to verify their respective lists of health centers that were participating in grant projects. We also asked the HCCNs to provide names and contact information for any participating health centers that were not included on these lists.

As a result, we compiled a list of 260 section 330-funded health centers participating in EHR implementation grant projects. We pretested the survey with six of these health centers and excluded them from the survey population. We administered the survey to the remaining 254 health centers. We received 246 responses, a 97-percent response rate. We excluded 13 health centers that reported they had not yet implemented an EHR system, because our survey questions focused on issues that are relevant only for health centers that have already implemented an EHR system.²⁷ Therefore, our findings are based on 233 health centers.

For the health centers that reported using an EHR system, we analyzed their survey responses to examine their progress toward implementing EHR systems that support meaningful use. For each Stage 1 meaningful use objective, the survey asked whether "all," "most," "some," "few," or "none" of the health center's eligible professionals met the measure for the objective for the preceding 90 days.²⁸ If the health center reported that all, most, some, or few of its eligible professionals met the measure, we concluded that the health center had established the capability for the

 $^{^{27}}$ These health centers had purchased an EHR system but had not yet implemented it at the time of our review.

²⁸ 42 CFR § 495.4. We used a 90-day reporting period because the Medicaid EHR incentive program uses a 90-day reporting period for the first year in which the eligible professional is demonstrating meaningful use.

objective. If the health center reported that none of its eligible professionals met the measure, we concluded that the health center had not established the capability for the objective. We asked health centers that did not establish the capability for the objective when they expected to establish it. If we concluded that a health center had established the capability for 15 core objectives and 5 menu objectives (including 1 of the public health menu objectives), we concluded that the health center had established the capability for all the objectives necessary for Stage 1 meaningful use. Finally, we analyzed survey responses to determine the extent to which eligible professionals at health centers are registered for the Medicaid EHR incentive program.

We analyzed survey responses from the health centers that reported using an EHR system to determine whether they reported facing challenges related to the financial sustainability of their EHR systems. For those health centers that reported facing such sustainability challenges, we analyzed open-ended survey responses to describe their challenges and their efforts to offset the ongoing costs of operating and maintaining the systems.

Grantee Progress Reports. We obtained from HRSA all grantee progress reports submitted by HCCNs as of August 2012. We reviewed two fields in the narrative section of the most recent progress reports: challenges and sustainability plans. We reviewed the challenges to determine whether HCCNs reported to HRSA that their health centers were facing financial sustainability challenges during the grant period and whether these challenges, if any, were similar to those reported by health centers through our survey. We reviewed HCCN's sustainability plans to determine whether the plans addressed the challenges that health centers reported facing related to the sustainability of their EHR systems.

Health Center Site Visits. We visited a purposive sample of 11 health centers chosen on the basis of their location and size. We visited health centers in California, Delaware, Illinois, Maryland, Oregon, and Utah that varied in size (3,000 to 70,000 patient encounters per year), location (urban/rural), and duration of EHR system use. At each health center, we conducted structured onsite interviews with staff members (e.g., eligible professionals, the medical director, and executive management) who perform key roles in the health center's EHR implementation and progress toward meaningful use. We asked the staff about their experiences in implementing the EHR system, including challenges they faced, and about the strategies they used to establish the capability for Stage 1 meaningful use objectives and to financially sustain the EHR system. Staff from five health centers completed our survey prior to our onsite visits. We asked these staff to elaborate on select responses from their survey. We analyzed

the information from health center staff interviews for additional or supporting information on health centers' progress toward implementing EHR systems that support meaningful use and challenges related to sustaining their EHR system.

Limitations

This study relies on self-reported data from health center respondents. We did not request documentation to verify their responses.

Standards

This study was conducted in accordance with the *Quality Standards for Inspection and Evaluation* issued by the Council of the Inspectors General on Integrity and Efficiency.

FINDINGS

Most health centers established the capability for meaningful use objectives related to capturing data; fewer established the capability for objectives related to sharing data

Although the grants that HRSA awarded to HCCNs did not require participating health centers to demonstrate Stage 1 meaningful use, the health centers have made significant progress toward establishing the capability for objectives related to capturing data. However, they have not made commensurate progress with regard to the objectives related to sharing data, thus hindering their progress toward implementing EHR systems that support meaningful use. Seventy-two percent (168 of 233) of health centers had established the capability for all the core objectives related to capturing data.²⁹ In contrast, only 24 percent (56 of 233) of health centers had done so for all the core objectives related to sharing data.³⁰ Although most of the health centers (192 of 233) had established the capability for at least 5 menu objectives, only 36 percent (83 of 233) had done so for 1 of 2 public health menu objectives related to sharing data. Overall, 14 percent (32 of 233) of health centers had established the capability for all of the objectives necessary for Stage 1 meaningful use, i.e., all 15 of the core objectives plus 5 of the 10 menu objectives.

Although only a small percentage of health centers had established the capability for all the objectives necessary for Stage 1 meaningful use, more than half of health centers had established the capability for each individual objective, with the exception of four objectives—one core, three menu—related to sharing data. (See Appendix B for an ordered list of the Stage 1 meaningful use objectives by the percentage of health centers with the capability for each objective.)

Although only 14 percent of health centers had established the capability for all the objectives necessary for Stage 1 meaningful use, at the time of our review, an additional 27 percent (62 of 233) of health centers reported that they would establish the capability for Stage 1 by mid-2013. Furthermore, almost all health centers (221 of 233) reported that they expected all of their eligible professionals to register for the Medicaid EHR incentive program to demonstrate Stage 1 meaningful use and

²⁹ Core objectives related to capturing data include vital signs, active medication, medication allergy lists, demographics, drug interaction checks, problem lists, smoking status, computerized provider order entry, and clinical decision support.

³⁰ Core objectives related to sharing data include electronic prescribing, clinical summaries, clinical quality objectives, electronic copy of health information, and electronic exchange of clinical information.

receive incentive payments. Eligible professionals who register for the Medicaid EHR incentive program have until 2017 to demonstrate Stage 1 meaningful use to receive the maximum amount of incentive payments. Therefore, participation in the Medicaid EHR incentive program indicates that the majority of health centers plan to establish the capability to enable all of their eligible professionals to demonstrate Stage 1 meaningful use by 2017 or earlier.

Establishing the capability for objectives related to sharing data often requires health centers to incur additional EHR-related costs

Establishing the capability for objectives related to sharing data may be challenging for health centers because these objectives can require health centers to incur additional EHR-related costs. Health centers reported that they have to purchase separate applications or pay separate fees for specific software capabilities for objectives related to sharing data with other providers of care,³¹ public health agencies, and patients. Health centers reported that such costs can be unanticipated because they expected their certified EHR systems to include all the capabilities necessary to demonstrate meaningful use.

Establishing the Capability To Share Data With Other Providers of Care and Public Health Agencies May Create Financial Challenges. On average, only 27 percent (63 of 233) of health centers had established the capability for the 3 objectives related to sharing data with other providers of care and public health agencies. Establishing this capability may require health centers to purchase additional technology to establish an interface (i.e., a data connection to an external system). In their surveys, health centers provided supplementary information about the financial challenges associated with establishing interfaces. For example, one health center reported that every different connection with outside entities "requires the purchase of a very expensive interface [along with] the cost of IT support and training." Another health center reported that its health

³¹ For the purposes of this report, "provider of care" is a general term that includes not only professionals, but also hospitals and other patient-authorized entities (i.e., any individual or organization to which the patient has granted access to his or her clinical information).

information exchange³² interface will cost \$39 per professional per month, which will create an additional expense in excess of \$10,000 per year.

Additionally, health centers reported that establishing interfaces to share information can also be challenging because such sharing is dependent on the readiness of other entities. Even if the health center is prepared to send information electronically, some organizations—such as immunization registries and State health departments—may not have the ability to receive the electronic data.

Establishing the Capability To Share Data With Patients May Create Financial Challenges. Only 29 percent (68 of 233) of health centers had established the capability for the objective related to providing patients with electronic access to their health information. A common way to establish this capability is to implement a patient portal, which is an online application that can enable patients to access their health records and allow them to interact and communicate with their professionals. However, patient portals may be costly for health centers to implement and financially sustain. During our site visit to one health center, staff reported that the center's patient portal technology cost \$80,000. Another health center reported that its vendor charges it \$49 per month per professional, which increases its annual expenses by \$15,000 per year. A third health center reported that its vendor charges it \$150 per month per professional. This objective was optional for Stage 1 meaningful use, but it will be required for Stage 2 along with additional objectives that can be met through the use of a patient portal.³³

 $^{^{32}}$ The term "health information exchange," or HIE, refers to the process of sharing health-related information among organizations according to nationally recognized standards. The term is often used interchangeably to refer both to a process and an entity, with many organizations referring to themselves as HIEs. Search HealthIT, Briefing: What is Health Information Exchange? Accessed at http://searchhealthit.techtarget.com/tutorial/FAQ-What-is-health-informationexchange#HIEstandards on January 29, 2013. Health information exchanges are different from health insurance exchanges, which are entities that are meant to create a more organized and competitive market for health insurance. Kaiser Family Foundation, Explaining Health Care Reform: Questions About Health Insurance Exchanges, April 2010. Accessed online at http://kaiserfamilyfoundation.files.wordpress.com/2013/01/7908-02.pdf on July 11, 2013. ³³ Stage 2 Core Objective 12 (send reminders for preventive care) and Core Objective 17 (use secure electronic messaging) can be met through the use of a patient portal. 77 Fed. Reg. 54031 (Sept. 4, 2012). ONC, How to Implement EHRs — Step 5: Achieve Meaningful Use, Patient Reminders. Accessed at http://www.healthit.gov/providersprofessionals/achieve-meaningful-use/menu-objectives/patient-reminders on July 11. 2013.

The extent to which eligible professionals met the Stage 1 meaningful use objectives related to capturing and sharing data varied

We concluded that a health center had established the capability for a meaningful use objective if the health center reported that "all," "most," "some," or "few" of its eligible professionals met the objective. Although a health center may have established the capability for an objective, the extent to which its eligible professionals actually met the objective varied from a "few" to "all" eligible professionals. This variation may indicate how difficult it is for eligible professionals to meet an objective once the health center has established the capability. For example, although 93 percent (216 of 233) of health centers established the capturing-data capability related to recording the smoking status for all patients 13 years old or older, only 37 percent (86 of 233) of health centers reported that all of their eligible professionals met that objective. Health centers reported that this objective is difficult for their eligible professionals to meet for a variety of reasons, including difficulties in capturing the data in a structured format and resistance to requesting the information from patients as young as 13. Furthermore, some eligible professionals, such as dentists, do not normally request this information from patients.

Although 82 percent (191 of 233) of health centers had established the sharing-data capability related to providing clinical summaries to patients following a visit, only 21 percent (50 of 233) of health centers reported that all of their eligible professionals met that objective. Health centers reported that this objective is difficult for their eligible professionals to meet, because it is challenging to accurately record the health information in a meaningful way. Specifically, sometimes it is challenging for eligible professionals to accurately record health information in plain language and—for patients whose native language is not English—to provide it in a clinical summary in the patient's native language. Other health centers reported that this objective is difficult because of the logistics of having to print the summary before the patient leaves the health center. (See Appendix C for a breakdown of the Stage 1 meaningful use objectives by the extent to which eligible professionals at health centers met them.)

Seventy-six percent of health centers reported facing financial sustainability challenges

Seventy-six percent (177 of 233) of health centers reported that they face, or anticipate facing, challenges related to the financial sustainability of their EHR systems. Health centers reported facing such challenges largely as a result of increased costs and loss of productivity and despite their efforts to offset the costs of sustaining an EHR system. Health centers'

use of EHR systems and ability to provide services may be negatively impacted when the centers face financial sustainability challenges that they are unable to overcome.

Health centers face financial sustainability challenges because of increased costs and loss of productivity associated with their EHR systems

The health centers that reported facing financial sustainability challenges commonly reported challenges related to increased costs and a loss of productivity associated with the EHR system. Of the health centers that reported facing such challenges, 66 percent (116 of 177) cited increased costs and 25 percent (45 of 177) cited a loss of productivity. Health centers generally reported facing more than one type of sustainability challenge at the same time.

The Increased Costs Associated With Operating and Maintaining an EHR System Can Be Challenging for Health Centers. Of the health centers that reported facing financial sustainability challenges, almost a third cited challenges related to the costs of operating an EHR system. These operational costs include ongoing staff training costs, IT support fees, interface costs, software licensing fees, and telecommunications fees. At the same time, approximately a quarter of health centers cited challenges related to the costs of maintaining the EHR system. These maintenance costs include hardware and software maintenance agreements and upgrades. Other health centers cited EHR-related costs in general that could not be categorized as operational or maintenance costs specifically.

<u>A Loss of Productivity—Or a Decline in the Number of Patient Visits—</u>
<u>Can Be Associated With Lower Reimbursement From Payers and Decreased Revenue.</u> Thirty-six health centers reported that loss of productivity was one of the most costly aspects of EHR implementation. These health centers reported a range of lost revenues that were due to a loss of productivity. For example, one health center reported that the loss of productivity has resulted in \$900,000 in lost revenues per year, whereas another health center estimated its loss at \$15,000.

A persistent loss of productivity following EHR implementation may occur as a result of usability issues with the EHR system. When a health centers' EHR system is difficult for professionals to use, they may not be able to see as many patients as they were able to see prior to EHR implementation. For example, on one of our site visits to a health center, professionals explained that it takes longer for them to navigate through the EHR and check all the appropriate boxes than it took for them to fill out the paper record. Furthermore, professionals explained that the EHR system and the meaningful use objectives place a larger documentation

burden on them than on other staff. The 45 health centers that reported facing sustainability challenges that are due to a loss of productivity implemented their EHR system almost 2 years prior to our review, on average. Eight of these health centers implemented their EHR system more than 3 years prior to our review.

Health centers face financial sustainability challenges despite efforts to offset the costs of sustaining an EHR system

The health centers that reported facing financial sustainability challenges also reported that they are trying to offset the costs of sustaining their EHR systems. Their efforts to offset costs included identifying additional sources of funding (e.g., external funding opportunities and Medicaid EHR incentive payments), increasing efficiencies with their respective EHR systems (e.g., enhancing collections of billable claims and optimizing billing), and increasing productivity through training and optimizing EHR systems to enable professionals to navigate them more quickly.

Health centers' use of their EHR systems and their ability to provide services could be negatively impacted if the centers are not able to overcome financial sustainability challenges. Health centers provided supplementary information on their surveys about the difficult decisions they have had to make to address sustainability challenges. Centers stated that because of the high costs of operating and maintaining EHR systems, they have had to delay purchasing and implementing interfaces, patient portals, and other capabilities. Other health centers reported that their sustainability challenges affect their ability to provide services to patients. One health center stated that "reduced productivity compounded with extra [EHR-related] costs have caused the health center to be operating at a loss and [we are] faced with cutting positions to continue providing the same level of services to our patients." Some health centers reported that their only option has been to charge patients more for services. Other health centers reported that staff dissatisfaction with the EHR system has led some experienced professionals to quit.

HCCNs' grantee progress reports contained limited information related to the financial sustainability of EHR systems at health centers

HCCNs, not health centers, wrote and submitted quarterly grantee progress reports to HRSA during the grant periods. We found that as a result, the narratives in the grantee progress reports were generally written from the HCCN perspective and contained limited information about the financial sustainability of EHR systems at their health centers.

First, some of the financial sustainability challenges reported by health centers were not reflected in the grantee progress reports. Second, most grantee progress reports did not include the HCCNs' plans to sustain EHR systems at health centers beyond the grant period. As a result of these limitations, HRSA may lack information on the challenges that health centers are facing and on how HCCNs are supporting their health centers' efforts to financially sustain their EHR systems.

Financial sustainability challenges reported by health centers were generally not reflected in HCCNs' grantee progress reports

HRSA requested information related to challenges experienced during the grant period to date, but it did not specify whether these challenges should be those experienced by the HCCN or those experienced by the health center. The grantee progress reports that we examined generally did not mention challenges specific to health centers' ability to sustain their EHR systems. As a result, financial sustainability challenges reported by health centers through our survey were generally not reflected in the grantee progress reports that HCCNs submitted to HRSA. For example, in response to our survey, 45 health centers associated with 25 different HCCNs reported loss of productivity as a sustainability challenge. However, only 4 of those 25 HCCNs reported their health centers' loss of productivity as a challenge in their grantee progress reports. Furthermore, for five HCCNs, the field for "challenges" in the grantee progress reports was left blank in at least one of the two most recent submissions. When HCCNs' grantee progress reports do not mention the sustainability challenges that their health centers are facing, HRSA may not be aware of the extent of these challenges.

Most sustainability plans did not include plans to sustain EHR systems at health centers

HRSA requested that in their grantee progress reports, HCCNs describe their respective sustainability plans, including a brief description of their plans to sustain the grant projects beyond the grant period. However, three HCCNs did not include such plans in their most recent grantee progress reports. Furthermore, the majority of the sustainability plans in progress reports did not include information specific to the HCCNs' plans to sustain EHR systems at the health-center level beyond the grant period. Instead, the majority of the sustainability plans that were submitted in grantee progress reports included information related to how the HCCNs

planned to sustain their *own* operations (26 of 38).³⁴ These plans included strategies such as charging membership fees, leveraging funding from HIT regional extension centers,³⁵ expanding HCCN membership, and relying on external funding opportunities.

When sustainability plans have limited information at the health-center level, HRSA may lack information on how HCCNs help or hinder health centers' efforts to financially sustain their EHR systems. For example, the majority of sustainability plans that focused only on HCCNs included strategies related to relying on resource commitments (e.g., membership fees) from their current health center members for sustaining HCCN operations (18 of 26). Most HCCNs require such resource commitments from their member health centers, but the grantee progress reports generally do not include any information on the affordability of these resource commitments and how they affect health centers' budgets. For example, one health center reported that the fees its HCCN charged were not "fairly divided among health centers." (In this case, the HCCN charged the same fee for each health center, rather than weighting it by each center's number of professionals).

³⁴ In addition to the three HCCNs that did not include sustainability plans in their most recent grantee progress reports, two HCCNs were reporting in the older format wherein HRSA did not request a sustainability plan. There were 43 HCCN grantees. Therefore, we analyzed 38 sustainability plans.

³⁵ Section 3012(a) of the Public Health Service Act created the HIT extension program that provides grants to establish HIT regional extension centers to provide technical assistance and guidance to all professionals.

CONCLUSION AND RECOMMENDATIONS

To improve coordination of care and to implement new models of service delivery and payment, it is critical that EHR systems be able not just to capture data, but also to share data.³⁶ Although most health centers that participated in EHR implementation grant projects through their respective HCCNs established the capability for meaningful use objectives related to capturing data, fewer established the capability for objectives related to sharing data. Establishing capabilities for objectives related to sharing data is a challenge that is not unique to health centers. Recent research indicates that there are substantial barriers to the widespread sharing of health information across all practice settings.³⁷

Although HRSA's EHR implementation grants were not intended to cover the ongoing costs of operating and maintaining EHR systems, HRSA expects HCCNs and health centers to have sustainability plans to cover these costs. However, 76 percent of health centers using EHR systems reported facing challenges related to their financial sustainability. Additional costs incurred by health centers as they establish the capability to share data can contribute to financial sustainability challenges. Health centers' use of their EHR systems and their ability to provide services may be negatively impacted if health centers are not able to overcome such challenges.

HRSA may not have complete information regarding financial sustainability at health centers because grantee progress reports submitted by HCCNs provided limited information. These progress reports do not give HRSA enough information to determine whether health centers are able to financially sustain HRSA's investment in EHR systems over the long term in the absence of future Federal grant opportunities, incentive payments, and new payment models under the Affordable Care Act.

³⁶ 78 Fed. Reg. 14793 (March 7, 2013).

³⁷ Michael F. Furukawa, et al., "Hospital Electronic Health Information Exchange Grew Substantially In 2008–12," *Health Affairs* 32 (8), August 2013.

To address these issues, we recommend that HRSA:

Use data to understand progress towards meaningful use objectives and to provide guidance and technical assistance to health centers

HRSA is updating its progress-reporting process for grantees to reflect its most recent fiscal year 2013 funding opportunity, which will require HCCNs to report on their participating health centers' attainment of meaningful use objectives as well as emerging needs and challenges encountered related to meaningful use.³⁸ HRSA also collects similar meaningful use information from all health centers reporting to HRSA's Uniform Data System, its annual reporting tool for health centers. Moving forward, HRSA should use this information to determine what types of assistance—technical or financial—health centers need to implement the capabilities related to sharing data.

Ensure that HCCN grantees provide information on the financial sustainability of EHR systems at health centers

The goal of HRSA's HIT-related grants is to serve the interests of health centers through HCCNs. We found that most grantee progress reports did not contain information on financial sustainability of EHR systems at health centers. As part of its ongoing monitoring of HCCN grantees, HRSA could gather information from HCCNs about the financial impact of implementation on participating health centers, including information on health centers' current and anticipated challenges. HRSA could also gather information from HCCNs about the specific actions they are taking to assist health centers' efforts to financially sustain their EHR systems.

Examine the feasibility of collecting information directly from health centers regarding the financial sustainability of their EHR systems

Grantee progress reports are submitted only by current HCCN grantees. To determine whether health centers are able to financially sustain HRSA's investment in EHR systems over the long term, HRSA should consider the feasibility of gathering information directly from all health centers regarding the financial sustainability of their EHR systems. Specifically, HRSA could do so by using existing tools—such as its Uniform Data System—for monitoring health centers. This would enable HRSA to annually collect sustainability information on all of its health centers, as opposed to only those currently participating in HRSA HIT-related grant projects.

³⁸ 77 Fed. Reg. 72870 (Dec. 6, 2012).

This information would be helpful for HRSA as it plans for future funding opportunities. HRSA could also use this information to provide guidance and technical assistance to health centers to help them financially sustain their EHR systems. For example, HRSA could use the information to identify promising practices and to reach out to health centers that report facing financial sustainability challenges.

AGENCY COMMENTS AND OFFICE OF INSPECTOR GENERAL RESPONSE

HRSA concurred with all of our recommendations.

To address our recommendation that HRSA use data to understand progress towards meaningful use objectives and to provide guidance and technical assistance to health centers, HRSA stated it will continue to analyze information from health center UDS reports and HCCN progress reports on meaningful use attainment. HRSA will use this information to inform future HIT technical assistance and training webinars.

To address our recommendation that HRSA ensure HCCN grantees provide information on the financial sustainability of EHR systems at health centers, HRSA commented that it has increased its focus on sustaining EHR systems as part of its recent funding opportunity announcements.

To address our final recommendation that HRSA examine the feasibility of collecting information directly from health centers regarding the financial sustainability of their EHR systems, HRSA stated that it will update its Site Visit Protocol to ensure a portion of the visit focuses on financial sustainability, addresses health center concerns, and provides targeted guidance. HRSA commented that it uses information submitted by health centers in the annual UDS reports and required independent audits to monitor financial sustainability of health centers.

For a full text of HRSA's comments, see Appendix D.

APPENDIX A

Stage 1 Meaningful Use Objectives

Core objectives									
Obje	ctive	Type of Capability	Measure						
1.	Use computerized provider order entry (CPOE)	Capturing data	More than 30 percent of all unique patients with at least one medication in their medication list have at least one medication order entered using CPOE.						
2.	Implement drug interaction checks	Capturing data	The eligible professional (EP) enables drug-drug and drug-allergy check functionality for the entire reporting period.						
3.	Maintain problem lists	Capturing data	More than 80 percent of all unique patients have at least one entry (or an indication that no problems are known for the patient) recorded as structured data.						
4.	Use electronic prescribing	Sharing data	More than 40 percent of all permissible prescriptions written by the EP are transmitted electronically using certified EHR systems.						
5.	Maintain active medication lists	Capturing data	More than 80 percent of all unique patients have at least one entry (or an indication that the patient is not currently prescribed any medication) recorded as structured data.						
6.	Maintain medication allergy lists	Capturing data	More than 80 percent of all unique patients have at least one entry (or an indication that the patient has no known medication allergies) recorded as structured data.						
7.	Record demographics	Capturing data	More than 50 percent of all unique patients have demographics recorded as structured data.						
8.	Record vital signs	Capturing data	More than 50 percent of all unique patients age 2 and over have height, weight, and blood pressure recorded as structured data.						
9.	Record smoking status	Capturing data	More than 50 percent of all unique patients 13 years old or older have smoking status recorded as structured data.						

continued on next page

Stage 1 Meaningful Use Objectives

Core objectives (continued)									
Objective	Type of Capability	Measure							
10. Report clinical quality measures (CQMs)	Sharing data	The EP successfully reports ambulatory CQMs selected by CMS in the manner specified by CMS.							
11. Implement clinical decision support rule	Capturing data	The EP implements one clinical decision support rule.							
12. Provide electronic copy of health information	Sharing data	More than 50 percent of all patients who request electronic copies of their health information are provided with copies within 3 business days.							
13. Provide clinical summaries	Sharing data	For more than 50 percent of all office visits, clinical summaries are provided to patients within 3 business days.							
14. Exchange clinical information electronically	Sharing data	The EP performs at least one test of the certified EHR system's capacity to electronically exchange key clinical information.							
15. Protect electronic health information	Ensuring privacy	The EP conducts or reviews a security risk analysis in accordance with the requirements under 45 CFR 164.308(a)(1). The EP implements security updates as necessary and corrects identified security deficiencies as part of the risk-management process.							
Menu objectives									
Objective	Type of Capability	Measure							
Implement drug formulary checks	Capturing data	The EP enables the functionality to check drug formularies and has access to at least one internal or external formulary for the entire EHR reporting period.							
Incorporate clinical lab test results	Capturing data	More than 40 percent of all clinical lab test results ordered by the EP during the EHR reporting period whose results are either in a positive/negative or numerical format are incorporated in certified EHR system as structured data.							
3. Generate patient lists	Capturing data	The EP generates at least one report listing patients with a specific condition.							
4. Send patient reminders	Sharing data	More than 20 percent of all patients 65 years old or older or 5 years old or younger were sent an appropriate reminder during the EHR reporting period.							

Stage 1 Meaningful Use Objectives

Menu objectives (continued)								
Obje	ctive	Type of Capability	Measure					
5. Provide patients with electronic access		Sharing data	At least 10 percent of all unique patients are provided timely (available to the patient within 4 business days of being updated in the certified EHR system) electronic access to their health information subject to the EP's discretion to withhold certain information.					
6.	Provide patient- specific education resources	Sharing data	More than 10 percent of all unique patients are provided patient-specific education resources.					
7.	Perform medication reconciliation	Capturing data	The EP performs medication reconciliation for more than 50 percent of transitions of care.					
8.	Provide transition of care summaries	Sharing data	The EP who transitions or refers a patient to another setting of care or provider of care provides a "summary of care" record for more than 50 percent of transitions of care and referrals.					
9.	Submit electronic data to immunization registries	Sharing data	The EP performs at least one test of the certified EHR system's capacity to submit electronic data to immunization registries and a followup submission if the test is successful.					
10.	Submit electronic syndromic surveillance data	Sharing data	The EP performs at least one test of the certified EHR system's capacity to provide electronic syndromic surveillance data to public health agencies and a followup submission if the test is successful (unless none of the public health agencies to which an EP submits such information has the capacity to receive the information electronically).					

Source: OIG analysis of Federal regulations (42 CFR § 495.6), 2013.

APPENDIX B

Stage 1 Meaningful Use Objectives and the Percentage of Health Centers With the Capability for Each Objective

Objective	Percentage with Capability (N=233)	Type of Capability	Core or Menu Objective
Record vital signs	96%	Capturing data	Core
Maintain active medication lists	95%	Capturing data	Core
Maintain medication allergy lists	95%	Capturing data	Core
Record demographics	95%	Capturing data	Core
Implement drug interaction checks	93%	Capturing data	Core
Maintain problem lists	94%	Capturing data	Core
Record smoking status	93%	Capturing data	Core
Use computerized provider order entry	92%	Capturing data	Core
Use electronic prescribing	91%	Sharing data	Core
Generate patient lists	90%	Capturing data	Menu
Provide patient-specific education resources	87%	Sharing data	Menu
Incorporate clinical lab test results	85%	Capturing data	Menu
Provide clinical summaries	82%	Sharing data	Core
Perform medication reconciliation	78%	Capturing data	Menu
Implement clinical decision support rule	77%	Capturing data	Core
Provide transition of care summaries	74%	Sharing data	Menu
Implement drug formulary checks	73%	Capturing data	Menu
Protect electronic health information	66%	Ensuring privacy	Core
Send patient reminders	67%	Sharing data	Menu
Report clinical quality measures	60%	Sharing data	Core
Provide electronic copy of health information	58%	Sharing data	Core
	<50%		
Exchange clinical information electronically	37%	Sharing data	Core
Submit electronic data to immunization registries	33%	Sharing data	Menu*
Provide patients with electronic access	29%	Sharing data	Menu
Submit electronic syndromic surveillance data	10%	Sharing data	Menu*

^{*}One of the two public health menu objectives is necessary to demonstrate Stage 1 meaningful use. Source: OIG analysis of survey responses and Federal regulations (42 CFR § 495.6), 2013.

APPENDIX C

The Extent to Which Eligible Professionals (EP) at Health Centers Met the Stage 1 Meaningful Use Objectives

Table C-1: Percentage of Health Centers by the Extent to Which Their EPs Met the Stage 1 Meaningful Use Core Objectives for At Least 90 Days

	Core Objectives														
	Use computerized provider order entry	Implement drug interaction checks	Maintain problem lists	Use electronic prescribing	Maintain active medication lists	Maintain medication allergy lists	Record demo- graphics	Record vital signs	Record smoking status	Report clinical quality measures	Implement clinical decision support rule	Provide electronic copy of health information	Provide clinical summ- aries	Exchange clinical information electronically*	Protect electronic health information
						Percer	ntage of H	lealth Ce	nters (N=	233)**					
All EPs met	52%	60%	53%	47%	58%	54%	72%	61%	37%	28%	37%	25%	21%	37%	35%
Most EPs met	28%	23%	31%	31%	30%	32%	18%	29%	41%	19%	24%	14%	24%	N/A	18%
Some EPs met	9%	8%	7%	9%	6%	7%	4%	4%	12%	11%	12%	10%	23%	N/A	8%
Few EPs met	3%	3%	3%	3%	2%	2%	1%	2%	3%	3%	4%	9%	14%	N/A	5%
No EPs met	5%	5%	4%	6%	3%	3%	3%	3%	5%	26%	12%	23%	15%	55%	23%
Don't know	1%	2%	3%	3%	2%	2%	2%	2%	2%	14%	11%	9%	3%	8%	12%

^{*} Yes/no-only objective that can be attested to at the health center level versus the EP level.

Source: OIG analysis of survey responses, 2012.

^{**} Some column percentages do not total 100 percent because of rounding and/or because health centers claimed an exclusion to an objective. An exclusion may be claimed if the meaningful use objective is not applicable to the EP.

Table C-2: Percentage of Health Centers by the Extent to Which Their EPs Met the Stage 1 Meaningful Use Menu Objectives for At Least 90 Days

	Menu Objectives										
	Implement drug formulary checks	Incorporate clinical lab test results	Generate patient lists	Send patient reminders	Provide patients with electronic access	Provide patient-specific education resources	Perform medication reconciliation	Provide transition of care summaries	Submit electronic data to immunization registries*	Submit electronic syndromic surveillance data*	
	Percentage of Health Centers (N=233)**										
All EPs met	45%	61%	65%	16%	9%	31%	31%	21%	33%	10%	
Most EPs met	16%	15%	12%	18%	6%	27%	27%	26%	N/A	N/A	
Some EPs met	6%	7%	9%	19%	8%	21%	14%	17%	N/A	N/A	
Few EPs met	5%	2%	4%	13%	6%	7%	6%	10%	N/A	N/A	
No EPs met	17%	12%	7%	26%	67%	10%	14%	16%	58%	75%	
Don't know	9%	3%	3%	6%	4%	3%	7%	9%	8%	15%	

^{*} Yes/no-only objectives that can be attested to at the health center level versus the EP level.

Source: OIG analysis of survey responses, 2012.

^{**} Some column percentages do not total 100 because of rounding and/or because health centers claimed an exclusion to a objective. An exclusion may be claimed if the meaningful use objective is not applicable to the EP.

APPENDIX D

Agency Comments



DEPARTMENT OF HEALTH & HUMAN SERVICES

Health Resources and Services Administration

Rockville MD 20857

TO:

Deputy Inspector General Inspector General, HHS OIG

FROM:

Administrator, Health Resources and Services Administration

SUBJECT:

HRSA's comments on Progress in Electronic Health Record Implemenation through HRSA Grants to Health Center Controlled Networks, (OEI-09-11-

00830

Thank you for the opportunity to review and provide comments on OIG's report. Attached please find HRSA's comments.

If you have any questions, please contact Rebeca Sanchez-Barrett in HRSA's Office of Planning, Analysis and Evaluation at (301) 443-0324.

/S/

Mary K. Wakefield, Ph.D., R.N.

Attachments

Agency Comments Continued

Health Resources and Services Administration's Comments on OIG Report, Progress in Electronic Health Record Implementation through HRSA Grants to Health Center Controlled Networks, OEI-09-11-00380

Health information technology (HIT) provides a foundation for improving the overall quality, safety, and efficiency of the health delivery system. The Health Resources and Services Administration (HRSA) endorses the widespread and consistent use of HIT, which is a promising tool for making health care services more accessible, efficient, and cost effective. In addition, HRSA fully supports the implementation and sustainability of Electronic Health Record (EHR) systems and the attainment of meaningful use of EHRs among health care providers. To support its health centers in achieving these goals, HRSA has several key initiatives in place.

In 2009, HRSA awarded American Recovery and Reinvestment Act (ARRA) funding directly to health centers to support capital improvement projects – more than 400 health centers used the funding to adopt and expand the use of EHRs. HRSA also provides additional resources including toolkits, guides, webinars, and reference tools to assist in the adoption and implementation of EHRs and attainment of meaningful use.

Additionally, in 1993, HRSA established Health Center Controlled Networks (HCCNs) to promote the use of HIT within health centers. There are currently 43 funded HCCNs throughout the U.S. HCCNs are a mechanism for health centers to join together to address operational and clinical challenges, particularly the acquisition and implementation of HIT, in a more cost-efficient manner. HCCNs also assist in the implementation of EHRs and provide cost-effective strategies for building HIT capacity. Because HCCNs tailor services and resources to meet the individual needs of health centers, they offer economies of scale that help small safety-net providers to successfully implement EHR systems.

As the Health IT industry and EHRs have evolved, HRSA's focus and funding emphasis for HCCNs have evolved as well. In 2009, when the ARRA-funded HCCN awards were made, meaningful use standards had not yet been developed – as such, HRSA's funding requirements did not include attaining meaningful use. However, these awards did emphasize the purchase and adoption of certified EHRs as a first step to using HIT for quality improvement purposes. The most recent HCCN Funding Opportunity Announcement (FOA) issued in 2013 highlighted the following three key areas:

- Adoption and implementation of EHRs (including a focus area on "due diligence", where HCCNs can support health centers with both cost and sustainability planning);
- Meaningful use; and
- · Quality improvement

Overall, according to HRSA's Uniform Data System (UDS) reports for Calendar Year 2012, 79.3 percent of Health Center Program grantees reported having EHRs at all sites for use by all providers and 10.7 percent reported having EHRs at some sites or for use by some providers. In addition, 77.3 percent of health centers who have an EHR reported that providers received meaningful use incentive payments from the Centers for Medicare and Medicaid Services due to their use of the health center's EHR system.

Response to Recommendations:

OIG Recommendation: Use data to understand progress towards meaningful use objectives and to provide guidance and technical assistance to health centers. HRSA is in the process of updating its

Agency Comments Continued

progress-reporting process for grantees to reflect the most recent fiscal year 2013 funding opportunity, which will require HCCNs to report their participating health centers' attainment of meaningful use objectives as well as emerging needs and challenges encountered related to meaningful use. HRSA also collects similar meaningful use information from all health centers reporting to HRSA's Uniform Data System, its annual reporting tool for health centers. Moving forward, HRSA should use this information to determine what types of assistance—technical or financial—health centers need to implement the capabilities related to sharing data.

HRSA Response: HRSA concurs with this recommendation. HRSA has and will continue to analyze information from health center UDS reports and HCCN progress reports on meaningful use attainment. HRSA will use this information to inform future HIT technical assistance and training webinars.

OIG Recommendation: Ensure that HCCN grantees provide information on the financial sustainability of EHR systems at health centers. The goal of HRSA's HIT-related grants is to serve the interests of health centers through HCCNs. We found that most grantee progress reports did not contain information on financial sustainability of EHR systems at health centers. As part of its ongoing monitoring of HCCN grantees, HRSA could gather information from HCCNs about the financial impact of implementation on participating health centers, including information on health centers' current and anticipated challenges. HRSA could also gather information from HCCNs about the specific actions they are taking to assist health centers' efforts to financially sustain their EHR systems.

HRSA Response: HRSA concurs with this recommendation. As noted above, HRSA has increased its focus on sustaining EHR systems as part of its recent FOAs. Project Officers that oversee the HCCN grantees regularly discuss financial and other sustainability concerns with their HCCN grantees as part of quarterly calls and other communication, and assist HCCNs in addressing these concerns though their HCCN grant projects.

OIG Recommendation: Examine the feasibility of collecting information directly from health centers regarding the financial sustainability of their EHR systems. Grantee progress reports are submitted only by current HCCN grantees. To determine whether health centers are able to financially sustain HRSA's investment in EHR systems over the long term, HRSA should consider the feasibility of gathering information directly from all health centers regarding the financial sustainability of their EHR systems. Specifically, HRSA could do so by using existing tools—such as its Uniform Data System—for monitoring health centers. This would enable HRSA to annually collect sustainability information on all of its health centers, as opposed to only those currently participating in HRSA HIT-related grant projects. This information would be helpful for HRSA as it plans for future funding opportunities. HRSA could also use this information to provide guidance and technical assistance to health centers to help them financially sustain their EHR systems. For example, HRSA could use the information to identify promising practices and to reach out to health centers that report facing financial sustainability challenges.

HRSA Response: HRSA concurs with this recommendation. HRSA uses information submitted by health center in the annual UDS reports and required independent audits to monitor financial sustainability of health centers. To further target the sustainability of EHR systems in the long term, HRSA will update its Site Visit Protocol to ensure a portion of the visit focuses on this issue, addresses health center concerns, and provides targeted guidance.

ACKNOWLEDGMENTS

This report was prepared under the direction of Timothy Brady, Regional Inspector General for Evaluation and Inspections in the San Francisco regional office, and Michael Henry, Deputy Regional Inspector General.

China Tantameng served as the team leader for this study, and Tiffany Stanley served as the lead analyst. Other Office of Evaluation and Inspections staff from the San Francisco regional office who conducted the study include Linda Min. Central office staff who provided support include Clarence Arnold, Heather Barton, Kevin Manley, Christine Moritz, and Sherri Weinstein.

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