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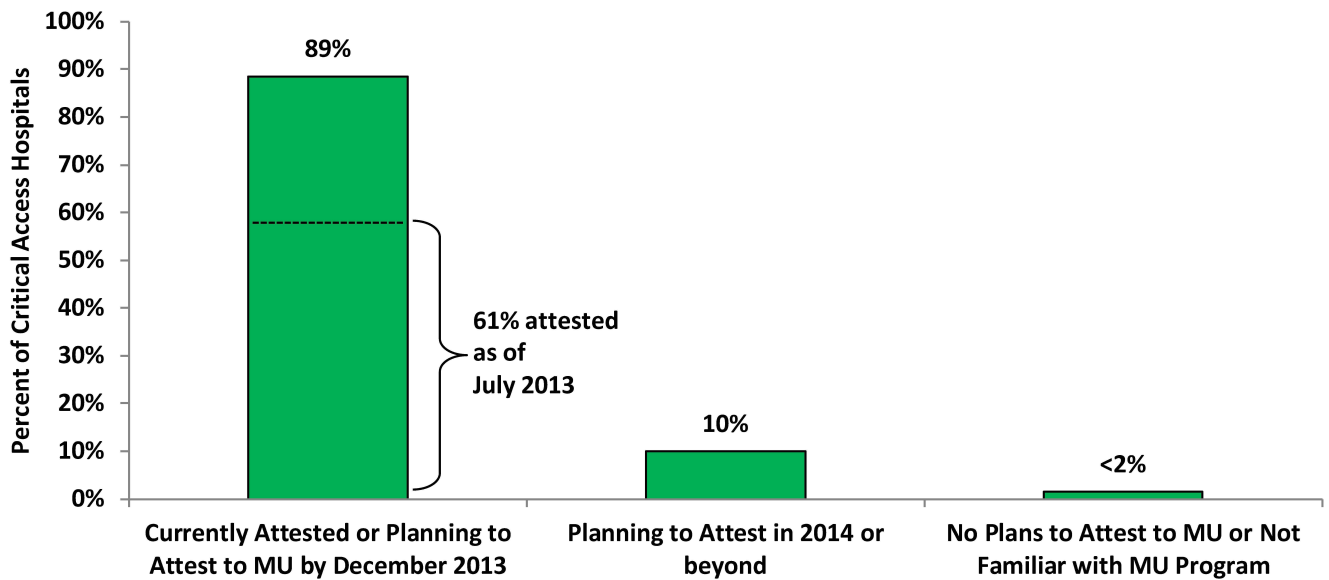
Progress and Challenges with the Implementation and Use of Electronic Health Records among Critical Access Hospitals

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Although electronic health record (EHR) adoption among rural hospitals has increased substantially in recent years¹, concerns remain regarding the unique challenges they face in adopting and achieving meaningful use (MU) of EHRs. These challenges include resource constraints and infrastructure issues such as limited broadband availability. This data brief describes the progress of Critical Access Hospitals with EHR adoption and MU and highlights the challenges that remain.

Almost every Critical Access Hospital plans to attest to Stage 1 Meaningful Use.

Figure 1. Current and planned attestation to MU among Critical Access Hospitals.



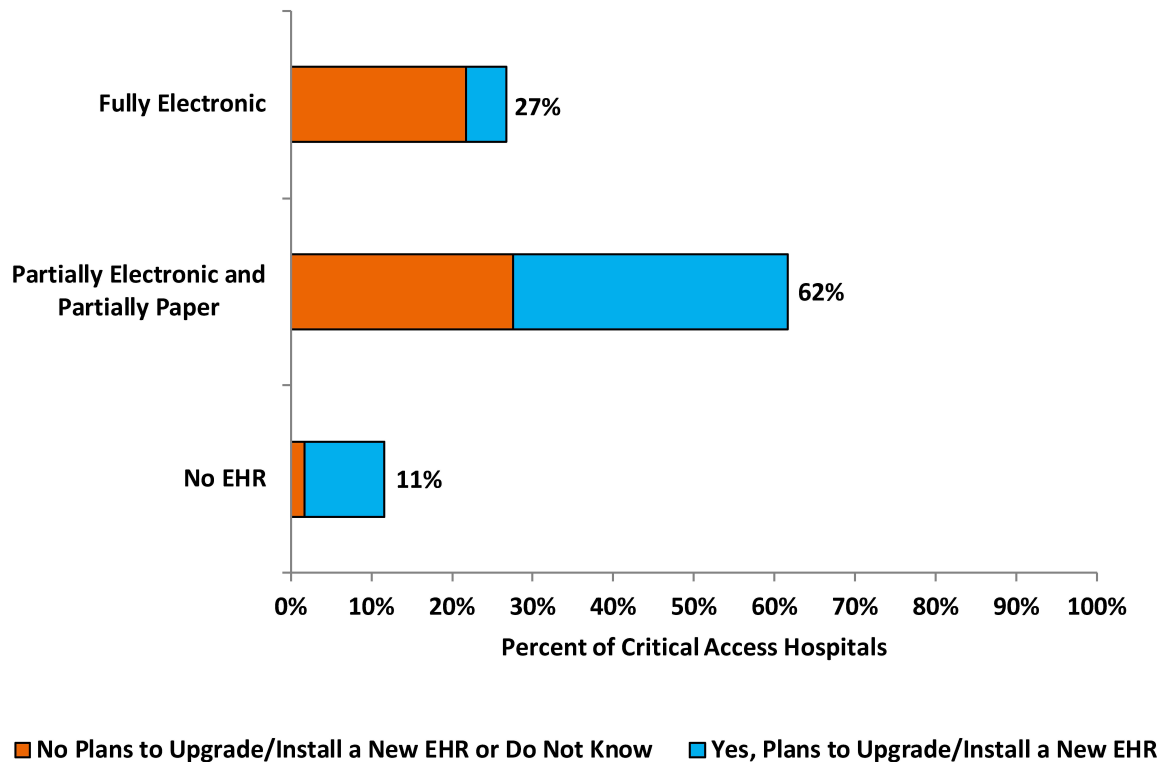
SOURCE: ONC analysis of HIMSS Analytics 2013 CAH Survey Supplement and Medicare and Medicaid EHR Incentive Program data

Note: Attestation is based upon ONC analysis of Medicare and Medicaid EHR Incentive Program data

- ★ As of July 2013, 61% of CAHs had attested to Stage 1 MU (Figure 1). 68% of other (non-CAH) eligible hospitals had attested to Stage 1 MU at this same point in time.
- ★ 89% of CAHs plan to attest to Stage 1 MU by the end of 2013.
- ★ Another 10% of CAHs plan to attest to MU by the end of 2014 or beyond, and less than two percent do not have plans to attest to MU.

The majority of Critical Access Hospitals used an EHR (89%), and half planned to upgrade or install a new EHR by May 2014.

Figure 2. Current EHR use and plans to upgrade or install a new EHR within the next year among Critical Access Hospitals.

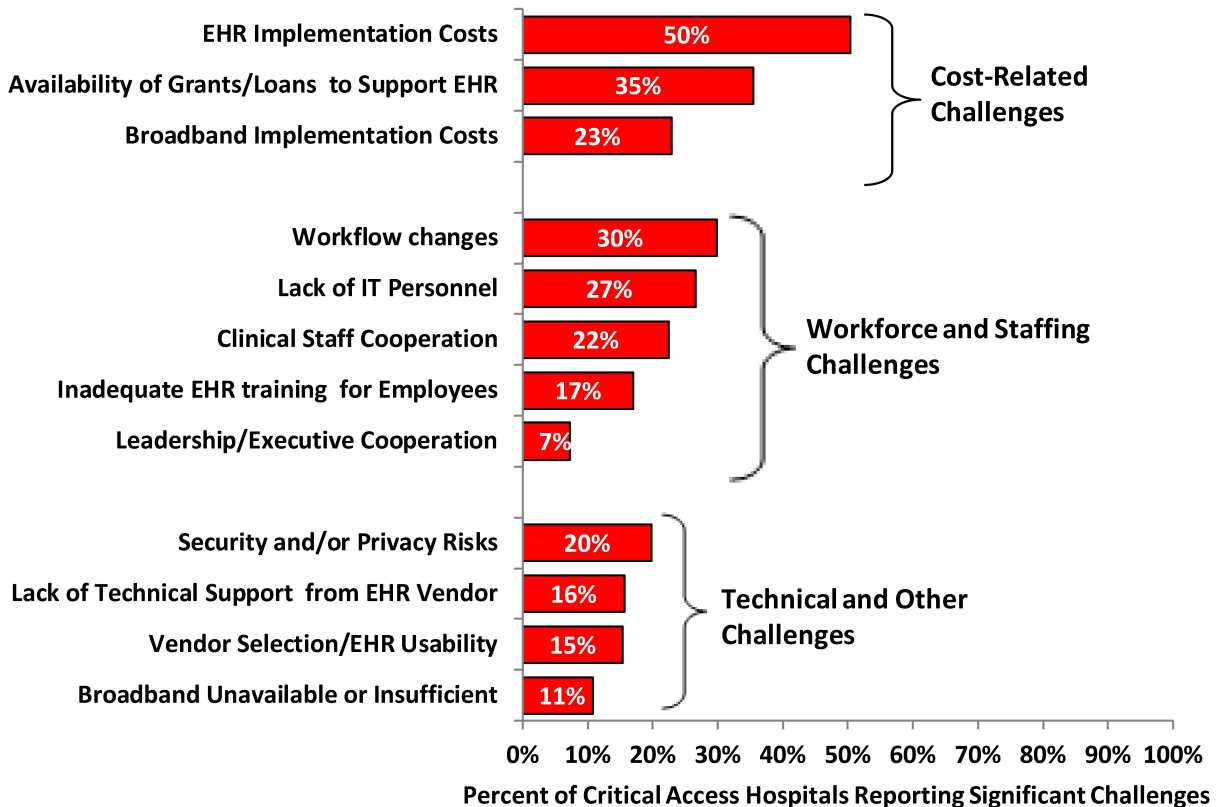


SOURCE: ONC analysis of HIMSS Analytics 2013 CAH Survey Supplement.

- ★ Overall, 89% of CAHs reported that they currently used an EHR system, and 49% of CAHs planned to upgrade/install a new EHR within one year (Figure 2).
- ★ About one in four CAHs (27%) used a fully electronic health record system. Among these fully electronic CAHs, 19% planned to upgrade or install a new EHR system within one year.
- ★ Almost two in three CAHs used both EHR and paper records (62%); of these, 55% planned to upgrade or install a new EHR within one year.
- ★ 11% of CAHs were not currently using an EHR, and the majority of these non-adopters planned to install an EHR within one year (85%).

EHR implementation costs and workflow changes were significant challenges to Critical Access Hospitals.

Figure 3: Significant challenges to effective EHR implementation and use among Critical Access Hospitals.

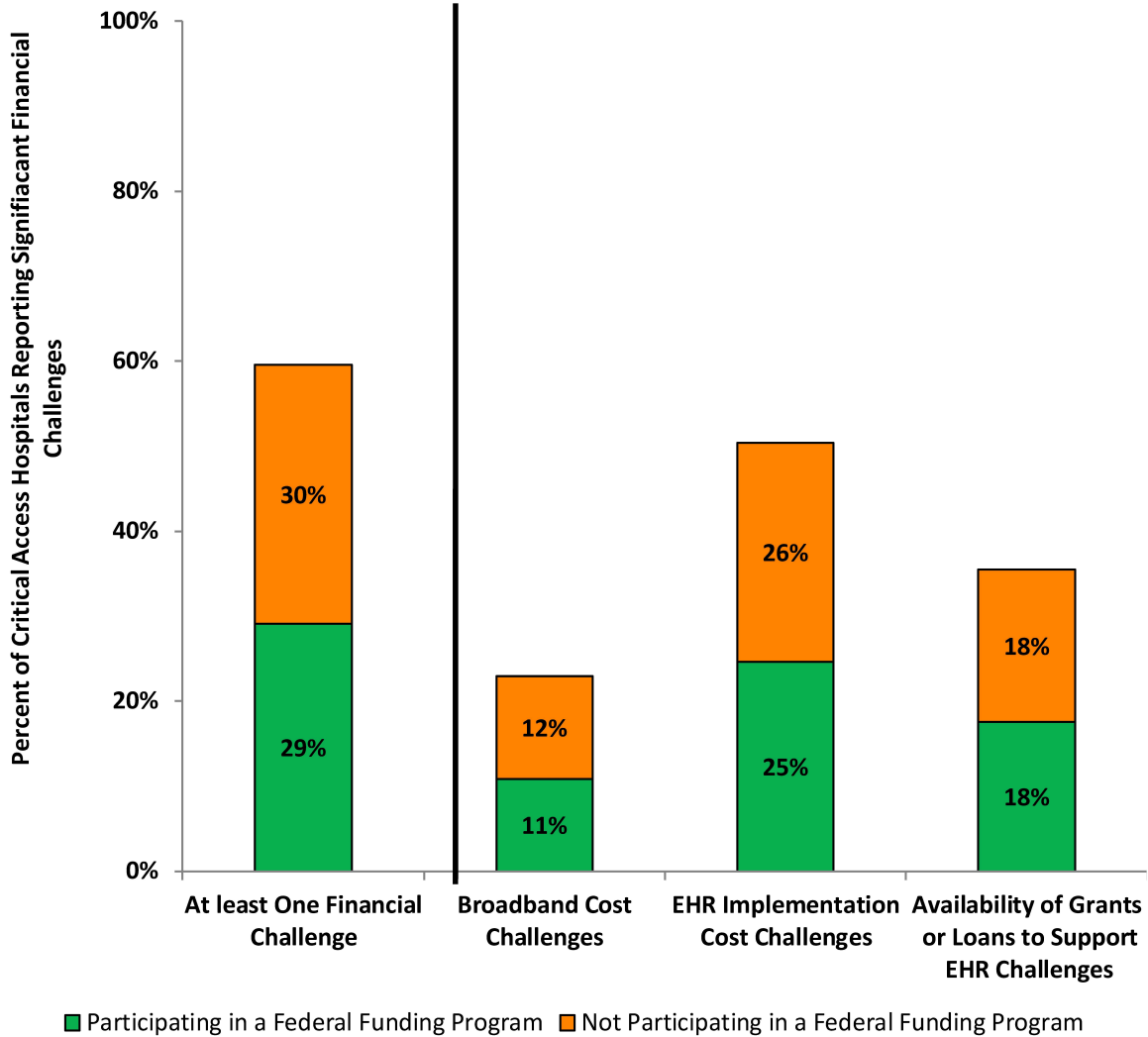


SOURCE: ONC analysis of HIMSS Analytics 2013 CAH Survey Supplement

- ★ Many CAHs reported significant financial challenges to EHR implementation and use, including EHR implementation costs (50%), availability of grants/loans to support EHR adoption and use (35%), and broadband implementation costs (23%) (Figure 3).
- ★ Workflow changes were cited by nearly one in three CAHs (30%) as significant challenges to EHR implementation and use.
- ★ Workforce concerns were also reported by CAHs, with lack of IT personnel (27%) and inadequate EHR training for employees (17%) cited as significant challenges to EHR implementation and use.
- ★ One in ten CAHs (11%) cited significant challenges related to unavailable or insufficient broadband.

Nearly 6 in 10 Critical Access Hospitals reported significant financial challenges, and many of these hospitals were not receiving assistance from selected Federal programs.

Figure 4: Participation in Federal programs among Critical Access Hospitals reporting significant financial challenges.

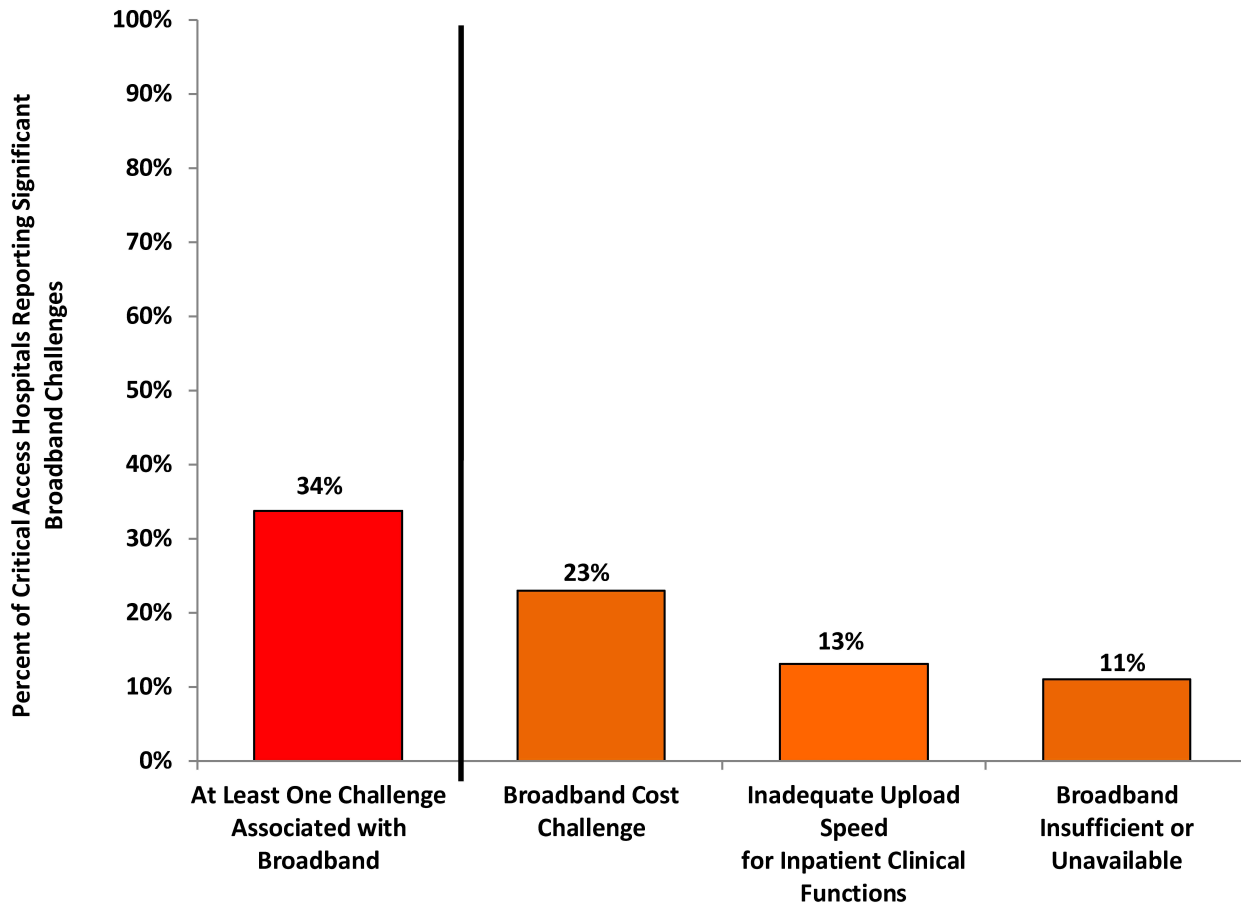


SOURCE: ONC analysis of HIMSS Analytics 2013 CAH Survey Supplement

- ★ A total of 59% of CAHs reported experiencing at least one of three financial issues related to broadband as a significant challenge to the implementation and use of EHRs (Figure 4).
- ★ Of the CAHs that experienced at least one financial challenge, 49% reported that they received assistance from selected Federal programs that provide assistance with funding for broadband and other costs associated with EHRs (see page 10 for descriptions of the programs).

A third of Critical Access Hospitals reported significant challenges related to broadband.

Figure 5: Significant challenges associated with broadband among Critical Access Hospitals

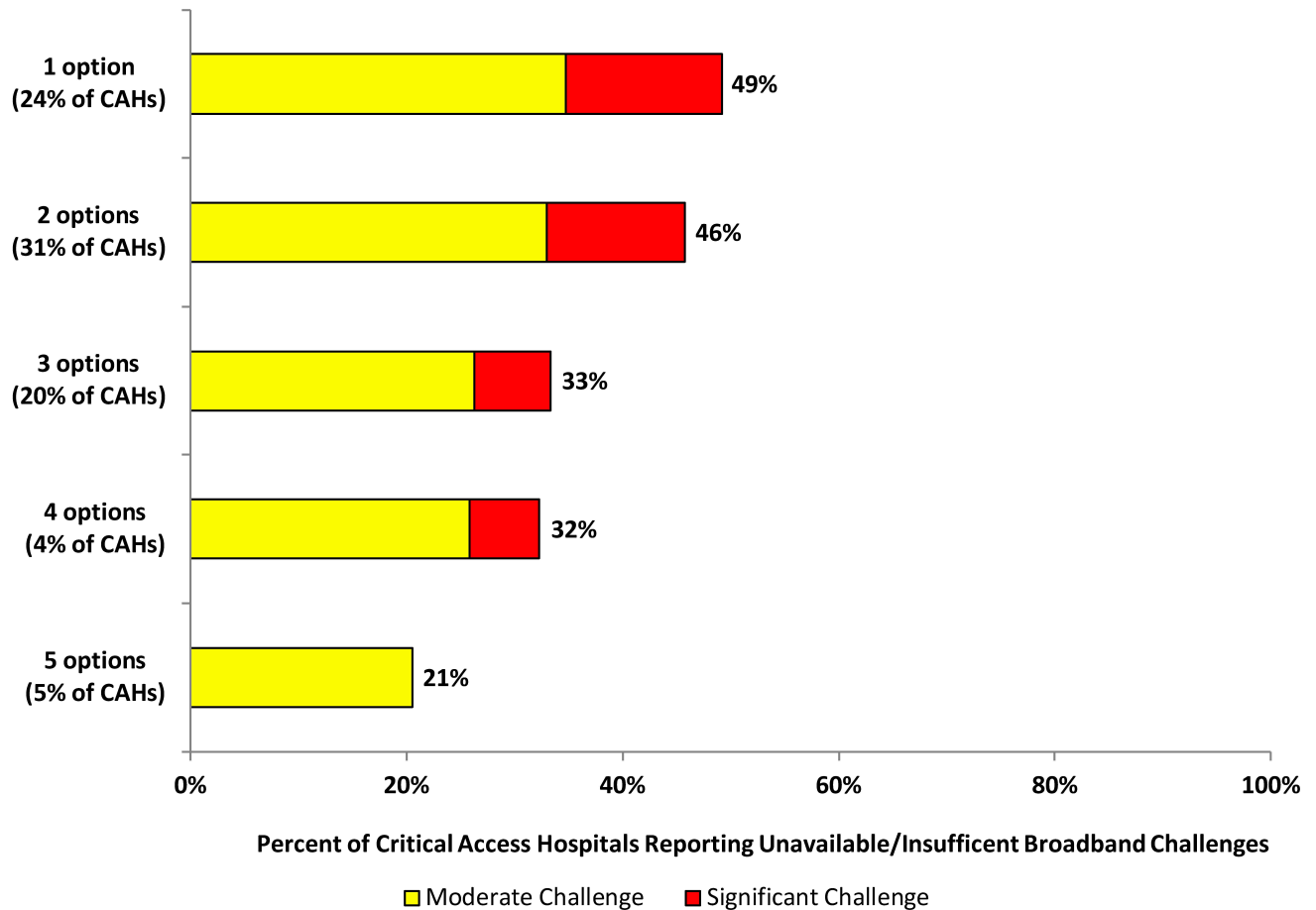


SOURCE: ONC analysis of HIMSS Analytics 2013 CAH Survey Supplement

- ★ Overall, 34% of CAHs reported having at least one significant challenge associated with broadband (Figure 5).
- ★ 23% of CAHs reported that broadband implementation costs were a significant challenge to EHR implementation and use.
- ★ 13% of CAHs reported that their internet upload speed was insufficient for inpatient clinical functions.
- ★ 11% of CAHs reported that unavailable or insufficient broadband in their local area was a significant challenge to EHR implementation and use.

60% of Critical Access Hospitals had 2 or more choices of internet service providers.

Figure 6: Percent of CAHs reporting challenges with unavailable/insufficient broadband, by number of internet service providers in their market.



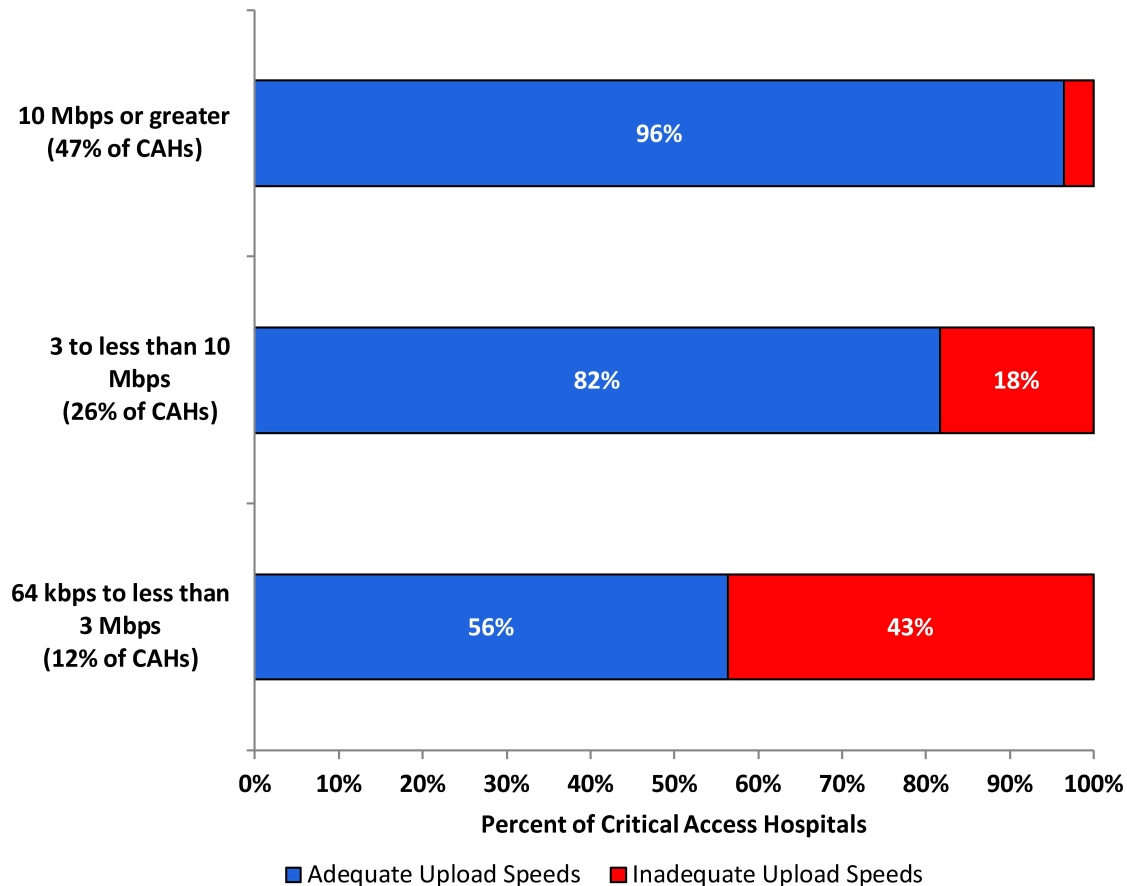
SOURCE: ONC analysis of HIMSS Analytics 2013 CAH Survey Supplement

- ★ Nearly half of CAHs with one or two internet service providers reported that unavailable or insufficient broadband was a moderate or significant challenge to EHR adoption and use, as did about one in three CAHs with three or four internet service provider options, and one in five CAHs with five or more options (Figure 6).
- ★ 60% of CAHs had two or more choices of internet service providers in their market.
- ★ One in four CAHs (24%) had only one option for an internet service provider.



Broadband upload speeds varied widely among Critical Access Hospitals.

Figure 7: Upload speeds and adequacy for inpatient clinical functions among CAHs.



SOURCE: ONC analysis of HIMSS Analytics 2013 CAH Survey Supplement

- ★ Nearly all CAHs (96%) with upload speeds greater than 10 Mbps reported adequate upload speeds for inpatient clinical functions such as transferring diagnostic images during the daytime (Figure 7).
- ★ 82% of CAHs with upload speeds between 3 and 10 Mbps reported adequate upload speeds.
- ★ 56% of CAHs with upload speeds between 64 kbps to less than 3 Mbps reported adequate upload speeds.

Summary

Critical Access Hospitals have made substantial progress toward adoption and meaningful use of EHRs. The majority of CAHs had attested to Stage 1 MU as of early 2013 and nearly all reported plans to do so by 2014 or later. However, CAHs continue to report important challenges to implementing and using EHRs.

The majority of CAHs reported facing financial challenges, citing EHR implementation costs, the availability of grants and loans to support EHR adoption and use, and broadband implementation costs as significant challenges. The Medicare and Medicaid EHR Incentive Programs are important sources of financial assistance available to CAHs; 99% of CAHs are planning to attest to MU by the end of 2014. However, many CAHs are not participating in other Federal programs that are available to provide assistance with funding for broadband and other costs associated with EHR adoption and use.

About one in three CAHs reported that workflow changes posed significant challenges to EHR implementation and use. The Regional Extension Center (REC) program was funded through the HITECH Act to provide support and technical assistance to select, implement, and meaningfully use certified EHR technology.³ The REC program is working with 82% of CAHs that responded to this survey.

Although broadband availability and insufficiency are challenges faced by some CAHs, a majority of CAHs reported that two or more internet service providers offered service in their local area. Broadband speed and adequacy for inpatient clinical functions varied widely among CAHs. Overall, 83% of CAHs reported adequate internet upload speeds to support current inpatient clinical functions. However, broadband availability and adequacy were cited as significant challenges by about one in ten CAHs (11%).

CAHs are a crucial part of the United States health care system, particularly in rural areas. Although there has been exceptional progress towards the implementation and use of EHRs among CAHs, challenges remain.

Data Source and Methods

A fifteen question survey was fielded by HIMSS Analytics as part of their ongoing data collection activities between November 21, 2012 and April 30, 2013. HIMSS surveys non-Federal hospitals in the United States annually, including CAHs. Follow up with non-respondents consisted of at least two emails, a letter, and a phone call. The response rate was 59%, with 793 of 1,342 facilities responding. The respondents were representative of the total population of CAHs (1,342) in terms of region, profit status, and ownership.

The survey collected information regarding the experience of CAHs with EHR implementation, access to capital, information technology workforce, broadband, and internet access. In addition, data were collected regarding participation in Federal broadband assistance programs.

Definitions

Critical Access Hospital. A CAH is defined as a licensed acute care hospital that is Medicare-certified to receive cost-based reimbursement in order to reduce the likelihood of financial insolvency. Generally, to qualify as a CAH, it must be at least 35 miles (or 15 miles in mountainous terrain or areas with only secondary roads) from the nearest hospital, have a maximum of 25 inpatient beds, and maintain an annual average length of stay of 96 hours or less for their acute care patients.⁴

Electronic Health Record. EHRs include electronically originated and maintained clinical health information derived from multiple sources about an individual's health status and healthcare. An electronic health record replaces the paper medical record as the primary source of patient information, and does not include billing and scheduling systems.

Meaningful Use. The Medicare and Medicaid EHR Incentive Programs provide financial incentives for the meaningful use of certified EHR technology to improve patient care. To receive an EHR incentive payment, providers have to show that they are meaningfully using their EHRs by meeting thresholds for a number of objectives.⁵

Broadband. The Federal Communications Commission (FCC) found that “advanced telecommunications capability” (i.e., broadband) at a minimum must permit an end user to download content at speeds of at least 4 megabits per second (Mbps) and to upload content at speeds of at least 1 Mbps over the broadband provider's network (4 Mbps/1 Mbps or benchmark). The FCC specifies this minimum threshold for broadband specifically for consumers (e.g., individuals in their homes) and also elementary and secondary schools and classrooms. However, health care providers, particularly hospitals, tend to require more capacity and speed than a typical household. Therefore, in future years, this threshold may be increased.⁶

Federal Broadband Programs. In the interest of promoting the goal of EHRs for all, Federal funding opportunities are available to Critical Access Hospitals in rural or remote areas. The following grant programs are available through the US Department of Agriculture (USDA) and the FCC via the Universal Service Administrative Company (USAC) and were designed specifically to fund projects that improve health and development in rural areas by increasing access to internet technologies in eligible rural communities.

Table 1: Federal Broadband Funding Programs.

<p>Community Connect Grant Program (USDA)</p> <p>A nationally competitive grant program that provides broadband access to the most rural communities without broadband service. Priority is given to areas where development of new broadband services will improve economic development and provide enhanced educational and healthcare opportunities.</p>	<p>Contact Information</p> <p>Kenneth Kuchno mkenneth.kuchno@wdc.usda.gov (202) 690-4673 http://www.rurdev.usda.gov/utp_farmbill.html</p>
<p>Community Facilities Program (USDA)</p> <p>Community Facilities Programs provide loans, grant and loan guarantees for essential community facilities in rural areas. Priority is given to health care, education and public safety projects.</p>	<p>Contact Information</p> <p>Your local Rural Development office (http://offices.sc.egov.usda.gov/locator/app) http://www.rurdev.usda.gov/HCF_CF.html</p>
<p>Distance Learning and Telemedicine Program (USDA)</p> <p>A nationally competitive program provides grants for distance learning and telemedicine in rural areas through the use of computer networks, telecommunications, and related advanced technologies to be used by students, teachers, medical professionals, and other rural residents.</p>	<p>Contact Information</p> <p>Sam Morgan msam.morgan@wdc.usda.gov mdlinfo@wdc.usda.gov (202) 720-0665 http://www.rurdev.usda.gov/UTP_DLT.html</p>
<p>Farm Bill Broadband Program (USDA)</p> <p>Provides loans for funding, for all types of technologies, for the costs of construction, improvement, expansion, and acquisition of facilities and equipment to provide broadband service to eligible rural communities.</p>	<p>Contact Information</p> <p>Kenneth Kuchno mkenneth.kuchno@wdc.usda.gov (202) 690-4673 http://www.rurdev.usda.gov/utp_farmbill.html</p>
<p>Rural Healthcare Program (FCC via USAC)</p> <p>Provides funding to eligible health care providers (HCPs) for telecommunications and broadband services necessary for the provision of health care. Funding is capped at \$400 million annually. Rural HCPs (or non-rural sites that are part of a majority-rural HCP consortium) will be able to receive a 65 percent discount on all eligible expenses under the new Healthcare Connect Fund. Rural HCPs can in the alternative receive telecommunications services discounted by the urban-rural rate differential in the Telecommunications Program.</p>	<p>Contact Information</p> <p>mrhc-assist@usac.org (800) 453-1546 http://www.usac.org/rhc/</p>
<p>Telecom Infrastructure Loan Program (USDA)</p> <p>Makes long-term direct and guaranteed loans to qualified organizations for the purpose of financing the improvement, expansion, construction, acquisition, and operation of telephone lines, facilities, or systems to furnish and improve telecommunications service in rural areas.</p>	<p>Contact Information</p> <p>Northern Division: (202) 720-1025 mpeter.amiable@wdc.usda.gov Southern Division: (202) 720-0800 shawn.arnier@wdc.usda.gov</p>



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About the Authors

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