Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC  20554

In the Matter of
Actions to Accelerate Adoption and Accessibility of Broadband-Enabled Health Care Solutions and Advanced Technologies

GN Docket No. 16-46

COMMENTS OF THE AMERICAN HOSPITAL ASSOCIATION

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On behalf of our nearly 5,000 member hospitals, health systems and other health care organizations, and our clinician partners – including more than 270,000 affiliated physicians, 2 million nurses and other caregivers – and the 43,000 health care leaders who belong to our professional membership groups, the American Hospital Association (AHA) appreciates the opportunity to respond to the Federal Communications Commission’s (FCC) Public Notice in the above-captioned proceeding seeking comment on how it can better advance the adoption and accessibility of broadband-enabled health care solutions in rural and other underserved areas of the country.\(^1\) The Commission’s focus on the intersection of broadband and health through the Connect2Health Task Force is commendable, and the AHA appreciates Chairman Pai’s

\(^1\) FCC Seeks Comment and Data on Actions to Accelerate Adoption and Accessibility of Broadband-Enabled Health Care Solutions and Advanced Technologies, Public Notice, GN Docket No. 16-46 (rel. April 24, 2017) (“Public Notice”).
commitment to the continuation of the Task Force’s important efforts under the leadership of Commissioner Clyburn.²

I. INTRODUCTION

The need for access to health care is no less critical for rural Americans than for those living in urban areas. Yet, due to a variety of factors, from economic challenges to the sheer distance one must travel to reach a rural health care provider, obtaining access to care in rural America is a significant challenge. About 60 million Americans live in rural parts of the United States,³ and many of them have inadequate or reduced access to health care services. The good news is that there is an increasing recognition by health care providers, patients and policy makers that broadband-enabled telehealth solutions can help bridge the rural health care access gap. As a result, the adoption of telehealth systems by health care providers is on the rise.⁴

While the trends in telehealth adoption are positive, the rural health care access gap, unfortunately, continues to widen. The number of rural hospitals has declined,⁵ and the number

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² See Chairman Pai Statement on Broadband Health and The Connect2Health Task Force, FCC (Mar. 16, 2017), https://apps.fcc.gov/edocs_public/attachmatch/DOC-343926A1.pdf (noting that “expanding the reach of medical expertise with connectivity illustrates the potential of broadband to improve people's lives, particularly in rural and underserved areas” and highlighting the Commission’s role in “bridging the broadband-enabled health gap.”)


of rural medical professionals continues to be insufficient to meet demand. More than one-third of rural residents live in areas that the federal government has deemed to have insufficient medical professionals to meet their population’s needs. In short, economic, geographic and demographic factors have combined to reduce rural access to health resources.

Thus, the need is evident for technologies that lower costs, connect remote populations and expand the reach of urban-centered medical expertise. Electronic health records (EHRs), technology-based patient engagement strategies and remote-monitoring technologies all require robust broadband connections. Further, the move to more coordinated care requires the ever-greater exchange of health information among providers. Access to reliable, sufficient and affordable broadband is increasingly important to providing high-quality health care, and it has become an essential infrastructure need for all hospitals and health systems.

The rural communities that would most benefit from connectivity, however, also have the least access to quality broadband services. Of the 3,600 (out of the approximately 307,000) small health care providers who in 2010 lacked adequate mass-market broadband options,

8 “Urban Versus Rural Health,” Unite for Sight, http://www.uniteforsight.org/global-health-university/urban-rural-health (last accessed May 16, 2017) (“In the United States, rural elders have significantly poorer health status than urban elders. Also, rural residents smoke more, exercise less, have less nutritional diets, and are more likely to be obese than suburban residents.”).
approximately 70 percent were located in rural areas.\(^9\) According to the same report by the FCC, 29 percent of rural health clinics likewise lacked access to broadband.\(^{10}\) The FCC, recognizing the importance of increasing access to broadband for rural providers, created the Healthcare Connect Fund (HCF) as a part of the RHC Program in 2012.\(^{11}\) As the Commission has previously noted, “[a]t a time when rural Americans make up nearly 25 percent of the nation’s population, but only 10 percent of the nation’s physicians practice in rural America, the growth in the [Rural Health Care] RHC Program translates into greater access to medical care across the country.”\(^{12}\) While the changes to the program have been largely successful, the AHA’s experience under HCF suggests that some additional modifications are still needed to ensure the benefits of telehealth are being realized in rural communities. The AHA supports the Commission’s laudable dedication to “bridging the broadband-enabled health gap”\(^{13}\) and appreciates the opportunity to provide suggestions on how the HCF can be updated to better achieve this goal. As reflected in these comments, the AHA conducts broad policy research in


\(^{10}\) Id. at 11.

\(^{11}\) Healthcare Connect Fund Order at 16696, ¶ 34.


the areas of the cost of health care, telehealth, information technology and other topics to assist our members and policy makers in understanding issues critical to America’s hospitals, health systems and other related organizations. You may be particularly interested in a recent report on strategies to ensure access to care in vulnerable communities, which includes telehealth as one key solution for those communities.\textsuperscript{14} We encourage the Commission make use of these resources as it makes decisions in this proceeding.

II. BROADBAND-ENABLED TELEHEALTH SERVICES ARE VITAL FOR IMPROVING HEALTH OUTCOMES IN OTHERWISE UNDERSERVED RURAL AREAS.

A. TELEHEALTH IS INCREASINGLY VIEWED AS A COST-EFFECTIVE SOLUTION TO INADEQUATE RURAL HEALTH CARE ACCESS.

For those underserved communities that the RHC Program seeks to help, telemedicine and mHealth provide a way to bridge the health care divide.\textsuperscript{15} Telehealth connects patients to vital health services though videoconferencing, remote monitoring, electronic consults and wireless communications. EHRs enable efficient exchange of patient and treatment information by allowing providers to access patients’ information from on-site or hosted locations, reducing the likelihood for redundant treatment and improving the quality of care. Mobile health leverages consumer devices such as smartphones, allowing health care to travel with the patient and clinician.\textsuperscript{16} Mobile health apps enable better patient-provider communications, encourage


\textsuperscript{15} Institute of Medicine Workshop at ch. 5. According to the Health Resources Services Administration, “telehealth” is the use of electronic information and telecommunications technologies to support long-distance clinical health care, patient and professional health-related education, public health and health administration.

\textsuperscript{16} Id.
better patient self-management and health literacy, and promote changes in health and lifestyle.\textsuperscript{17} According to the American Telemedicine Association, companies such as Teladoc, Doctors on Demand and American Well were predicted to host some 1.2 million virtual doctor visits in 2015, an increase of 20 percent from the previous year.\textsuperscript{18}

Video consultation and remote monitoring applications remove geography and time as barriers to care, enabling instant contact with health professionals and allowing patients to receive services at home.\textsuperscript{19} Tele-emergency specialty consults improve outcomes and reduce need for transfers, while telehealth physician visits reduce admissions from nursing homes,\textsuperscript{20} ameliorating the economic challenges faced by rural hospitals.\textsuperscript{21} In fact, a report from the Healthcare Performance Management Institute concluded that 40 percent of hospital emergency department visits and 70 percent of physician visits could be handled through remote telecommunications.\textsuperscript{22} For example, according to the Department of Veterans Affairs (VA), the national telehealth program served more than 690,000 veterans in the 2014 fiscal year,

\footnotesize\textsuperscript{17} Frequently Asked Questions, HealthIT, https://www.healthit.gov/providers-professionals/frequently-asked-questions/486#id155 (last accessed May 16, 2017).
\footnotesize\textsuperscript{19} See Institute of Medicine Workshop, passim.
\footnotesize\textsuperscript{20} AHA, Issue Brief, “Telehealth: Helping Hospitals Deliver Cost-Effective Care” at 5 (April 22, 2016), http://www.aha.org/content/16/16telehealthissuebrief.pdf (“AHA Issue Brief”); see also id. at ch. 5.
\footnotesize\textsuperscript{21} Id.; see also Ripton & Winkler at 1.
\footnotesize\textsuperscript{22} See Boccone at 1.
representing 12 percent of all veterans enrolled in the health care system.\textsuperscript{23} Of those who did use the VA’s telehealth services, the majority – 55 percent – lived in rural areas where access to VA facilities is difficult. The popularity with which veterans have opted into these services is remarkable; in 2011, only 1,016 veterans participated in the program but, within three years, more than 10,589 participated.

MercyVirtual is another example demonstrating the life-saving potential of telehealth. As the world’s first facility devoted entirely to remote care, its staff of 330 provides remote support for intensive care units (ICU), emergency departments and other programs in three dozen small hospitals in rural or underserved areas ranging from North Carolina to Oklahoma that could not otherwise afford to have a 24/7 on-site physician.\textsuperscript{24} In the facility’s TeleICU section, critical-care doctors sit at oversize video monitors that continually collect data on ICU patients and can spot signs of imminent trouble.\textsuperscript{25} If a patient needs attention, physicians can zoom in via two-way camera, and alert the local provider on-duty of any causes for concern. In the past year, ICUs monitored by Mercy specialists have seen a 35 percent decrease in patients’ average length of stay and 30 percent fewer deaths than anticipated. As the president of MercyVirtual, Randall Moore, observed: “That translates to 1,000 people who were expected to die who got to go home instead.”\textsuperscript{26}


\textsuperscript{26} Id.
A 2012 report by the Institute of Medicine for the National Academies confirmed that telehealth drives volume by cutting down on the time that it takes patients to receive care; increases quality of care, particularly for specialty services; and reduces costs by reducing readmissions and unnecessary emergency department visits for rural communities.\textsuperscript{27} The rapid adoption of telehealth by hospitals across the nation over the last decade is a testament to its efficacy and cost-savings. The AHA’s most recent data from 2016 (summarized below in Figure 1) indicate that 65 percent of hospitals have implemented telehealth, up from 35 percent in 2010 and 55 percent in 2014.\textsuperscript{28} An additional 13 percent of hospitals are in process of implementing telehealth services.\textsuperscript{29} At the same time, 12 percent of hospitals indicate that they are considering the use of telehealth services but lack the resources to do so.\textsuperscript{30} Thus, as hospitals are increasingly relying upon high-quality broadband infrastructure to deliver their telehealth services, the Commission should adopt proposals that reward and encourage even greater participation in the RHC Program.

\textsuperscript{27} See Institute of Medicine Workshop, \textit{passim}.

\textsuperscript{28} AHA Analysis of the AHA Annual Survey - Information Technology Supplement for 2016.

\textsuperscript{29} Id.

\textsuperscript{30} Id.
B. ACCESS TO RELIABLE AND ROBUST BROADBAND CONNECTIVITY IS ESSENTIAL FOR TELEHEALTH.

All of these innovative, life-saving and cost-efficient solutions require that health care providers and the citizens they serve have access to robust, high-speed broadband. More than 23 million Americans, comprising 39 percent of the rural population, lack access to fixed broadband at speeds of at least 25 Mbps downstream and 3 Mbps upstream. By contrast, only

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31 See Boccone at 1.
4 percent of urban Americans lack access to broadband at such speeds. Examining a lower broadband connectivity threshold (10/1 Mbps downstream/upstream) shows a similar rural/urban divide. Of the 19.9 million total Americans lacking access to 10/1 Mbps service, 14.8 million, or 74 percent, reside in rural areas.\(^{33}\) Rural Americans, disproportionately lacking access to high-speed broadband, are thereby prevented from receiving the full benefits of telehealth.

Effective telehealth services depend on broadband connections that are reliable and robust. Although the level of connectivity required to support telehealth depends on many factors, including number of users, user locations, real-time transactions, hardware and storage technology size,\(^{34}\) the FCC in 2010 analyzed the present and projected broadband needs of health care providers in light of the United States’ then-extant infrastructure.\(^{35}\) Drawing upon extensive input from experts, health professionals and vendors, the FCC established connectivity and quality-of-service levels required to enable full functionality of the types of telehealth services required for different types of health care institutions, e.g., solo primary care practices, small primary care practices, nursing homes, health clinics, clinics/large physician practices, hospitals and large medical centers.\(^{36}\) For example, the FCC provided the following baseline quality-of-service requirements for all health services providers: \(^{37}\)

<table>
<thead>
<tr>
<th>Quality Metric</th>
<th>Recommended Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability (uptime)</td>
<td>99.9%</td>
</tr>
<tr>
<td>Latency</td>
<td>&lt;50 ms primary</td>
</tr>
<tr>
<td></td>
<td>&lt;120 ms back-up</td>
</tr>
</tbody>
</table>

\(^{33}\) Id. at Appendix F, Table 1.


\(^{35}\) FCC Broadband Health Care Paper at 4.

\(^{36}\) See id. at 6.

\(^{37}\) Id. at 7, Exh. D.
The Commission also observed that a “rural health clinic” of approximately five practitioners would require at least 10 Mbps of bandwidth, in order to support remote monitoring technologies, video consultations and access to EHRs.\(^{38}\) Consistent with the FCC’s assessment, experts have more recently opined that ideal internet speeds should be at least 15 Mbps download and 5 Mbps upload.\(^{39}\) Hospitals and large medical centers unsurprisingly have even greater bandwidth needs: according to the FCC, such facilities can require in excess of 1 Gbps bandwidth to support, for example, real-time diagnostic imaging services and multiple simultaneous video consultations.\(^{40}\)

As discussed above, over two-thirds of the small health care providers who lacked mass-market broadband options were located in rural areas.\(^{41}\) Nearly one-third of all rural health clinics had no access to broadband.\(^{42}\) Thus, despite increasing adoption of telehealth and rising participation in the RHC Program, there remains much work to be done to digitally integrate the more geographically isolated populations of our nation.

\(^{38}\) Id. at 6, Exh. C.

\(^{39}\) See, e.g., Teresa Iafolla, “What are the basic technical requirements for telehealth?,” eVisit (May 12, 2016), http://blog.evisit.com/what-are-the-basic-technical-requirements-for-telehealth.

\(^{40}\) See FCC Broadband Health Care Paper at 6, Exh. C.

\(^{41}\) See id. at 9-10.

\(^{42}\) Id. at 11.
C. THE RURAL HEALTH CARE PROGRAM MUST BE UPDATED TO KEEP PACE WITH THE GROWING CONNECTIVITY NEEDS OF HEALTH CARE PROVIDERS.

While the RHC Program’s Healthcare Connect Fund is an essential tool to provide affordable broadband access for many rural health care providers, the program’s full potential is limited by financial restrictions and administrative complexities. The AHA urges the Commission to implement several changes to the HCF that will lead to greater program participation, further expansion of broadband connectivity, and ultimately, improved health outcomes for rural Americans. Specifically, the FCC should:

- Increase the overall funding of the program to meet growing demand from health care providers;
- Raise the HCF discount percentage from 65 percent to 85 percent;
- Allow some funding for consortium administrative expenses;
- Streamline program administration;
- Consider making remote patient monitoring an eligible expense; and
- Reconsider the definition of rural used by the FCC to be more inclusive.

Each of these suggestions is discussed in more detail below.

1. THE RURAL HEALTH CARE PROGRAM FUNDING CAP MUST BE INCREASED TO MEET GROWING DEMAND FROM HEALTH CARE PROVIDERS.

For many years, the RHC Program funding cap proved adequate to meet the needs of its rural applicants, even as those needs grew year-by-year. Not surprisingly, with a greater reliance by health care providers on high-speed broadband and with a greater emphasis on such connectivity through the HCF, in 2016, for the first time since the Program’s inception, the RHC Program exceeded its $400 million funding cap. Applicants sought some $556 million in federal funds, of which $407,770,232 were qualifying funding requests. As a result, the Universal
Service Administrative Company (USAC) was forced to pro-rate all qualifying funding requests and awarded eligible recipients 92.5 percent of the funding requested in the Sept. 1 – Nov. 30, 2016 filing window.43

Funding for broadband-enabled health care is needed today more than ever, and the $400 million cap established 20 years ago is no longer sufficient to meet burgeoning demand. The inclusion of a new class of provider – skilled nursing facilities – beginning in 2017 will place additional demands on funding and should be accompanied by an increase in the cap to accommodate them. Furthermore, since the release of the National Broadband Plan in 2010, the Commission has increased the cap or budget for every Universal Service Fund program but the RHC program. Given the extremely tight budgets of rural health providers, even small reductions in support can disincentivize program participation. It is time to revisit and reset this cap to provide support for all qualifying applicants and ensure that all Americans can benefit from a broadband-connected health care system, regardless of where they live.

2. **THE HEALTH CARE CONNECT FUND DISCOUNT PERCENTAGE SHOULD BE RAISED TO 85 PERCENT.**

During the transition from the RHC pilot program to the HCF, the Commission decreased its level of support for broadband costs from 85 percent to 65 percent, more than doubling the contribution required of health care providers from 15 percent to 35 percent. The FCC should increase the HCF discount percentage to the initial level of 85 percent. An 85 percent support level is more in line with other broadband support programs administered by the FCC, such as the E-rate program, which supports up to 90 percent of costs for many schools’ and libraries’

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broadband connectivity needs.\textsuperscript{44} At a minimum, the Commission should establish a mechanism by which eligible health care providers can reasonably and promptly qualify to obtain greater discounts upon a showing of need.

3. \textbf{The Rural Health Care Program should pay for consortium administrative expenses.}

The Commission should include consortium administrative costs in its list of non-recurring costs eligible for reimbursement, including reasonable expenses in preparing applications and other administrative costs associated with network design, construction and contract administration.

Many participants in the HCF are part of consortia that facilitate the process of program participation and contracting for broadband services. However, the program does not currently support any of the substantial administrative expenses associated with consortia membership, instead requiring consortium participants to cover these costs. Indeed, because organizing and running a consortium requires significant administrative and oversight costs, the Commission’s decision to exclude these costs from coverage may be limiting certain providers’ participation in the HCF. Although the Commission recognized the need to cover up to $100,000 in administrative costs associated with the proposed health infrastructure program in the 2010 \textit{RHC Program Reform NPRM},\textsuperscript{45} it chose not to support those same administrative costs in the 2012 \textit{RHC Program Reform Order}.	extsuperscript{46} Real-world experience with the HCF suggests that a lack of support for these expenses raises costs for potential consortia participants, which leads some

\textsuperscript{44} 47 C.F.R § 54.505.


\textsuperscript{46} \textit{Health care Connect Fund Order} at 16720-24, ¶¶ 90-98.
health care providers not to participate, thereby increasing costs even more for those entities that remain in consortia. We note, however, that the proposal above to increase in the overall discount rate could act as an effective alternative to providing explicit funding for consortium administrative costs.

4. **Administration of the Rural Health Care Program Must be Streamlined.**

The Commission should streamline and upgrade the RHC Program for those who participate so that the available funds can be fully deployed in support of a broadband-connected rural health care system. Participation in the RHC Program can be hampered by a program management approach that lacks a robust information technology infrastructure and a responsive system for application processing. As the AHA has expressed previously, a program that is too administratively burdensome will discourage health care providers from participating.\(^{47}\) The Commission should review the past several years of program applications to determine improvements to better facilitate the application and disbursement process.

5. **Remote Patient Monitoring Should Be Deemed to Be an Eligible Expense.**

The Commission should change the program rules to include costs for remote patient monitoring as an eligible expense. Remote patient monitoring involves the collection of a patient’s personal health and medical data via electronic communication technologies. Once collected, the data are transmitted to a health care provider at a different location, allowing the provider to continue tracking the patient’s data once the patient has been released to his or her home or another care facility. Remote patient monitoring allows providers to better manage care

for patients with chronic conditions by minimizing disruption to their daily lives, increasing provider oversight to ensure compliance, pre-empting acute episodes and, for recently discharged patients, reducing the likelihood of unnecessary readmissions.

In light of the improved outcomes and decreased costs of remote patient monitoring—particularly for those populations already suffering from crippling health care costs arising from their chronic conditions – the Commission should include costs for remote patient monitoring as an eligible expense. If the Commission were to subsidize the wireless broadband services that health care providers purchase from wireless carriers for remote monitoring, health care providers would not only obtain support for the cost of connectivity to other health care providers but also for connectivity to individual patients. This relatively minor expenditure for broadband services can result in considerable savings in health care costs, making it entirely consistent with the purposes of the program.

6. **THE DEFINITION OF “RURAL” SHOULD BE MORE INCLUSIVE.**

The Commission should reconsider the definition it uses to determine whether health care providers are rural and, therefore, eligible for support. The definition of rural used by the FCC is quite restrictive: a “rural area” is limited to an area that is entirely outside of a Core-Based Statistical Area (CBSA); is within a CBSA that does not have any Urban Area with a population of 25,000 or greater; or is in a CBSA that contains an Urban Area with a population of 25,000 or greater, but is within a specific census tract that itself does not contain any part of a Place or Urban Area with a population of greater than 25,000.\(^{48}\) As a result of the 2010 Census and the most recent nationwide CBSA designations, some areas that were previously considered rural are

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\(^{48}\) See 47 C.F.R § 54.5.
now deemed non-rural, irrespective of whether the affected populations have gained better access to health resources.

Other federal agencies, such as the Office of Rural Health Policy with the Health Resources and Services Administration, have adopted different and more sensible definitions of rural.\textsuperscript{49} While we recognize the need for the FCC to develop specific rules to define what is rural, we recommend that the Commission evaluate how restrictive and equitable the current definition is and whether an alternative approach would be more likely to be more inclusive, equitable and consistent with program objectives. The goal of the program should be to enable all health care providers to provide essential health services to persons who reside in rural areas, and the health outcomes of those persons should not be affected by irrelevant parameters and the vicissitudes of the Census.

\textbf{III. CONCLUSION}

The AHA appreciates the Commission’s dedication to improving the administration of the RHC Program to meet the broadband connectivity needs of rural health care providers. With modest changes to the HCF, the FCC can incent greater participation and further expansion of broadband, closing this aspect of the digital divide, and improving the lives of rural Americans. If you have any questions or need further information, please do not hesitate to contact me or Chantal Worzala, AHA’s vice president of health information and policy operations at cworzala@aha.org.

Respectfully submitted,

By: \hspace{1cm} /s/ \hspace{1cm}

\textsuperscript{49} For a description of alternative definitions of rural, please see, \textit{e.g.}, \url{https://www.ruralhealthinfo.org/topics/what-is-rural}.
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