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March 30, 2015

**VIA ECFS**

Marlene H. Dortch, Secretary  
Federal Communications Commission  
445 Twelfth Street, N.W.  
Washington, DC 20554

Attn: Radhika Karmarkar  
Regina Brown  
Wireline Competition Bureau

**Re: CHRISTUS Health  
CC Docket No. 02-60**

Madam Secretary:

We write regarding the increasing importance of remote home health monitoring to the delivery of health care, particularly in rural settings. The experience of CHRISTUS Health aligns with the Commission's recognition that remote monitoring improves the quality of care while reducing costs to patients and providers. We urge the Commission to consider supporting the deployment of remote monitoring by providing limited universal service support to eligible health care providers through the Rural Health Care ("RHC") program. A streamlined RHC application mechanism that supports remote monitoring – if only on a limited pilot basis – will help rural hospitals who are facing a crisis that is undermining healthcare delivery in rural America.

CHRISTUS Health is an international Catholic, faith-based, not-for-profit health system comprised of almost 350 services and facilities, including more than 60 hospitals and long-term care facilities, 175 clinics and outpatient centers, and dozens of other health ministries and ventures.<sup>1</sup> Jointly sponsored by the two religious congregations of the Sisters of Charity of the Incarnate Word in Houston and San Antonio, the mission of CHRISTUS Health is to extend the healing ministry of Jesus Christ. To support its health care ministry, CHRISTUS Health employs approximately 30,000 associates and has more than 9,000 physicians.

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<sup>1</sup> See <http://www.christushealth.org/workfiles/2015SystemProfile.pdf> (last visited Mar. 11, 2015). CHRISTUS Health is the lead entity and member of the Texas Health Information Network Collaborative ("TxHINC"), a RHC pilot program awardee. However, with this letter, CHRISTUS Health and Mr. Conklin, who is the Chief Information Officer for CHRISTUS Health and Project Manager of TxHINC, are representing CHRISTUS Health and not TxHINC.

CHRISTUS Health has facilities in Texas, Louisiana, Arkansas, Georgia, Iowa, and New Mexico (as well as facilities in Mexico and Chile). Many sites in the CHRISTUS Health system are either designated “rural” for purposes of the RHC program, or serve patients who live in areas that are rural, remote, and medically underserved.

### **Growing Importance of Remote Patient Monitoring**

Remote monitoring helps doctors manage post-operative care and patients with chronic conditions such as heart disease and diabetes.<sup>2</sup> Devices attached to patients use wireless broadband to transmit measurements back to the hospital where they can be monitored and medications or other treatments adjusted. Detecting problems early improves the quality of patient care, avoids unnecessary visits to a doctor or emergency room, and reduces costs to patients, hospitals, and insurers. As a result of Medicare penalties based on patient readmission rates, it also improves the bottom-line for hospitals. This opportunity to improve care and lower costs makes remote monitoring an increasingly important sector of our health care system.

CHRISTUS Health has long been an innovator and, in 2012, implemented its own remote monitoring pilot in partnership with a carrier (AT&T) and remote monitoring vendor (Vivify Health), both based in Texas.<sup>3</sup> Working with a care transition team focused on post-hospitalization treatment of patients with chronic heart conditions and diabetes, the CHRISTUS Health remote monitoring project sought to increase quality of care, while reducing the burdens on the certified care transition nurses responsible for monitoring remote patients. The project successfully reduced readmission rates, all with very high patient satisfaction.<sup>4</sup>

### **Crisis Facing Small Rural Healthcare Providers**

Many small rural hospitals in America are in crisis, facing a “perfect storm” of demographic, regulatory, and economic challenges that threaten their continued viability.<sup>5</sup> Since 2010, there has

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<sup>2</sup> See generally, e.g., Jonathan D. Rockoff, *Remote Patient Monitoring Lets Doctors Spot Trouble Early*, WALL ST. J., Feb. 16, 2015.

<sup>3</sup> See Rajiv Leventhal, *Innovator Semifinalist Team: Improving Home Health at CHRISTUS Health With RPMS*, HEALTHCARE INFORMATICS, Feb 18, 2014, available at <http://www.healthcare-informatics.com/article/innovator-semifinalist-team-improving-home-health-christus-health-rpms>.

<sup>4</sup> *Id.* at 2.

<sup>5</sup> See Jayne O'Donnell and Laura Ungar, *Rural Hospitals in Critical Condition*, USA TODAY, Nov. 12, 2014, available at <http://www.usatoday.com/story/news/nation/2014/11/12/rural-hospital-closings-federal-reimbursement-medicaid-aca/18532471/>; see also Guy Gugliotta, *Rural hospitals, beset by financial problems, struggle to survive*, WASH. POST, Mar. 15, 2015, available at <http://wapo.st/1BHy5re> (“[R]ural hospitals . . . suffer from multiple endemic disadvantages that drive down profit margins and make it virtually impossible to achieve economies of scale. These include declining populations; disproportionate numbers of elderly and uninsured patients; the frequent need to pay doctors better than top dollar to get them to work in the hinterlands; the cost of expensive equipment that is necessary but frequently underused; the inability to provide lucrative specialty services and treatments; and an emphasis on emergency and urgent care, chronic money-losers.”).

been a dramatic increase in the number of rural hospital closures.<sup>6</sup> Rural hospitals serve “some of the sickest and poorest” patient populations in the nation and these closings are reducing the availability of emergency and other care to these populations, resulting in avoidable deaths and medical complications.<sup>7</sup> Managing care for these “sickest and poorest” is a particular challenge for rural hospitals, and readmission penalties associated with their care are one factor in the perfect storm these hospitals are facing.<sup>8</sup>

The FCC has an opportunity to help these hospitals, all of which are intended beneficiaries of the RHC program – a program, which fifteen years after being established, remains undersubscribed.<sup>9</sup> Indeed, this crisis among rural hospitals demonstrates that undersubscription of the RHC program is not due to a lack of need for RHC support among targeted beneficiaries.

### **How the FCC Could Help**

Allowing rural hospitals to obtain a discount on wireless broadband costs associated with providing remote monitoring to patients is one way the Commission could help. The remote monitoring kits employed by health care providers (“HCPs”) consist of different kinds of remote monitoring equipment such as blood pressure cuffs and fingertip blood-oxygen meters that are integrated with a wireless broadband service provided by a wireless carrier. These can also include tablet computers, however the equipment supplied by the HCP is locked down and can only be used for healthcare related purposes. (No streaming movies on an HCP-provided tablet computer, for example.) The kits are sent home with patients on a temporary basis, maintained by the hospital, and reusable (after being sterilized).

Patients in rural areas may have difficulty obtaining reliable broadband for remote monitoring. At a minimum, such patients often do not have multiple wireless broadband providers to choose from. However, the area served by an HCP may span a wide region with no single carrier able to serve

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<sup>6</sup> See O’Donnell and Unger, *supra* note 5, at 1 (“Since the beginning of 2010, 43 rural hospitals — with a total of more than 1,500 beds — have closed, according to data from the North Carolina Rural Health Research Program. The pace of closures has quickened: from 3 in 2010 to 13 in 2013, and 12 already this year. Georgia alone has lost five rural hospitals since 2012, and at least six more are teetering on the brink of collapse”); *see also* Coshandra Dillard, Dying rural hospitals affect most vulnerable, TYLER MORNING HERALD, Feb. 14, 2015, available at <http://www.tylerpaper.com/TP-News+Local/213794/dying-rural-hospitals-affect-most-vulnerable> (profiling closing of East Texas Medical Center in Gilmer, TX); Alex Smith, Facing Layoffs And Closures, Rural Hospitals Push For Medicaid Expansion, KCUR Kansas City Public Radio, Feb 11, 2015, available at <http://hereandnow.wbur.org/2015/02/24/rural-hospitals-medicaid> (profiling closing of Sac-Osage Hospital in Osceola, Missouri).

<sup>7</sup> See O’Donnell and Unger, *supra* note 5, at 1.

<sup>8</sup> See Dillard, *supra* note 6 (“The Affordable Care Act was designed to provide more access to health care, helping rural hospitals stay afloat. However, new penalties for performance-based measures, such as re-admission rates, stifled already strapped hospitals.”).

<sup>9</sup> The RHC has not shown dramatic growth since the Healthcare Connect Fund (“HCF”) was launched in January 2013. See USAC Rural Health Care Funding Information, <http://usac.org/rhc/healthcare-connect/funding-information/default.aspx> (showing less than \$200 million in total funding requests for funding year 2013) (last visited Mar. 25, 2015).

all of the patients served by the HCP. As a result, HCPs may need different remote monitoring kits that work with different wireless broadband providers.<sup>10</sup> The kits and associated wireless broadband contract costs are paid for by the HCP, not the patient.

The Commission should consider subsidizing under the RHC program the wireless broadband contracts between the HCP and wireless carriers HCPs use for remote monitoring. This could be done in some cases under the existing \$10,000 competitive bidding exemption<sup>11</sup> or perhaps by establishing a new exemption (on a pilot basis) for rural HCPs purchasing services at publicly-available commercial mobile broadband rates. A simple reimbursement mechanism that is administratively easy to implement and easy to apply for could directly and immediately benefit rural hospitals. Enhancing access to advanced services in this way would encourage the deployment of technologies that benefit rural health care providers and the patients they serve.

The legal basis for funding mobile broadband connectivity between eligible HCPs and patients under the RHC program is addressed below.

### **The Rural Health Care Program Should Continue to Foster Innovation**

The Commission has in the past used the Rural Health Care Program to explore innovative ways to “enhance . . . access to advanced telecommunications and information services” for eligible health care providers.<sup>12</sup> For example, in 2007 the RHC pilot program allocated \$417 million spread over several years to fund network projects across the country “designed to bring the benefits of innovative telehealth and telemedicine services to areas of the country where the need for those benefits is most acute.”<sup>13</sup> While individual pilot projects saw varying degrees of success, the overall effort proved hugely beneficial and provided Commission policy-makers with the practical basis for establishing the Healthcare Connect Fund in 2012 (as a component of the overall RHC program).

More recently, the Commission has twice considered RHC program initiatives that would have continued to explore and support innovation in healthcare delivery. In 2012, the Commission announced a \$50 million pilot program to consider the benefits of funding connections from eligible health care providers to skilled nursing facilities (“SNFs”).<sup>14</sup> The Commission recognized

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<sup>10</sup> This is similar to a consumer selecting a smartphone from a carrier that has the best coverage where they live or work. Note, if particular patients are unable to obtain wireless broadband service capable of supporting remote monitoring from any provider, HCPs are in a position to report this information to the Commission for use in other universal service proceedings.

<sup>11</sup> 47 C.F.R. § 642(h)(1). This exemption could be sufficient for many rural hospitals. Assuming a monthly mobile broadband data rate of \$50 per month per active connection, this would equal \$600 per year per connection. In this example, sixteen connections active for every month of the year would equal \$9600 per year – potentially eligible for \$6240 in HCF subsidy.

<sup>12</sup> 47 U.S.C. § 254(h)(2)(A).

<sup>13</sup> See *Rural Health Care Support Mechanism*, WC Docket No. 02 60, Report and Order, 27 FCC Rcd 16678, 16684-85, ¶ 13 (2012) (*HCF Order*) (describing RHC pilot program).

<sup>14</sup> See generally *HCF Order*, 27 FCC Rcd at 16815-18, ¶¶ 345-350.

the important goal of using advanced services to improve patient outcomes and saw SNFs as a critical part of the care continuum for patients.<sup>15</sup>

While the Commission ultimately did not implement the SNF pilot, in 2014, it sought comment on a proposal to use the \$50 million in unused SNF funding for a series rural healthcare broadband experiments that would be “consumer oriented” and could “improve patient access to health care.”<sup>16</sup> The *Technology Transitions Order* specifically highlighted the benefits of remote monitoring, explaining:

[T]echnological advances hold great promise to enable the elderly to age in place, in their home, with remote monitoring of key health statistics through a broadband-enabled device. Likewise, the Department of Veteran Affairs has implemented a telehealth initiative which has reduced the number of days spent in the hospital by 59 percent, and hospital admissions by 35 percent for veterans across the country, saving over \$2000 per year per patient, including even when factoring in the costs of the program. These programs are critical to achieving savings in healthcare costs, and reducing the amount of time patients are away from home, but a critical gap remains in ensuring that patients, such as the elderly and veterans, have access to sufficient connectivity at home to transmit the necessary data for telemedicine applications such as remote health care monitoring, to enable patients to access the health care provider's patient portal, and for other broadband-enabled health care applications.<sup>17</sup>

The FCC’s Connect2Health Task Force has also recognized the clear benefits of remote monitoring for rural and underserved communities. The Task Force described first-hand encounters with these benefits while on a recent visit to Ruleville, Mississippi (pop. 3,007):

While at North Sunflower [County Medical Center], two diabetes patients, “Ms. Annie” and “Ms. Jackie,” shared moving firsthand accounts of how wireless broadband and remote monitoring have helped them control their diabetes and avoid the debilitating consequences of the disease experienced by other family members.

We also learned that, as a direct result of the broadband-enabled remote monitoring effort in Ruleville, hospital admissions for diabetes-related illness are plummeting.<sup>18</sup>

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<sup>15</sup> See *id.* at 16816, ¶ 346.

<sup>16</sup> *Technology Transitions, et al.*, GN Docket No. 13-5 et al., Order, Report and Order and Further Notice of Proposed Rulemaking, Report and Order, Order and Further Notice of Proposed Rulemaking, Proposal for Ongoing Data Initiative, 29 FCC Rcd 1433, 1504, ¶ 224 (2014) (*Technology Transitions Order*).

<sup>17</sup> See *id.* at 1504, ¶ 225 (footnotes omitted).

<sup>18</sup> Just Around the Broadband Bend, Posting of P. Michele Ellison, Chair, Connect2HealthFCC Task Force, Official FCC Blog, <http://www.fcc.gov/blog/just-around-broadband-bend> (Feb. 23, 2015).

The *Technology Transitions Order* also asked whether Section 254 provides the legal authority to fund broadband experiments focusing on “providing advanced telecommunications and information services to consumers in rural areas, with a particular focus deploying broadband that is sufficient to meet consumers’ healthcare needs” and sought comments “on experiments that would provide support to health care providers.”<sup>19</sup> (The existing RHC programs provide funding to service providers, who then provide discounted services to eligible health care providers.)

### **Can Universal Service Support Broadband Connectivity Underlying Remote Monitoring?**

The broadband connectivity that makes remote monitoring possible easily fits within the definition of “advanced services” eligible for universal service support in the Healthcare Connect Fund.<sup>20</sup> The current rule, Section 54.634(a) provides:

Eligible health care providers may request support from the Healthcare Connect Fund for any advanced telecommunications or information service that enables health care providers to post their own data, interact with stored data, generate new data, or communicate, by providing connectivity over private dedicated networks or the public Internet for the provision of health information technology.

What is new would be allowing HCPs to obtain support for the cost of connectivity to individual patients rather than to other HCPs. Review of the statutory language authorizing the RHC programs, however, show the challenge is more practical than legal.

Although RHC has traditionally supported connectivity between entities, there is nothing in the statute limiting support to entity-to-entity connections. Section 254(h)(1)(A) provides support to rural HCPs for “telecommunications services which are necessary for the provision of health care services”; while Section 254(h)(2)(A) authorizes the FCC to create rules that enhance HCP access to “advanced telecommunications and information services for all public and non-profit . . . health care providers. . . .”<sup>21</sup> These two statutory provisions are intended to assist both patients and HCPs in obtaining basic health care services that now include remote monitoring.

From a funding standpoint, the practical obstacle involves how these services are procured. It is at best impractical for a small rural hospital to conduct a competitive bidding process for the commodity mobile broadband service that underpins remote monitoring kits. In selecting service providers, hospitals will consider foremost the availability of adequate mobile broadband service at the location (or locations) where the patient will be monitored (typically but not necessarily their private residence). In cases where more than one service provider could be selected, other factors such as price can be expected to come into play.

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<sup>19</sup> See *id.* at 1506, ¶ 230.

<sup>20</sup> See *HCF Order*, 27 FCC Rcd at 16720-30, ¶¶ 110-111; see also *id.* at 16732-34, ¶¶ 116-119 (declining to impose minimum bandwidth requirements on HCF support).

<sup>21</sup> See 47 U.S.C. § 254(h).

Hon. Marlene H. Dortch

March 30, 2015

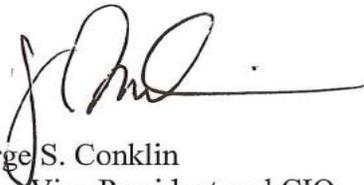
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Even in cases where multiple broadband providers could provide the needed service, a competitive bidding exemption makes sense. First, services are needed for a limited period of time that will vary and be uncertain in duration: it could be weeks, months, or years, depending on the patient and the medical conditions being monitored. Conducting a traditional RHC competitive bidding process annually for each situation would make no sense. Even if services were procured in bulk for a range of patients in a particular region for a set period of time (one year for example), because mobile broadband pricing is a commodity in most cases, program savings would be minimal and the complexity of the RHC procurement process and requirements would discourage participation by the small rural hospitals that urgently need this support.

Instead, the Commission should consider a competitive bidding exemption that allows rural hospitals to request funding for the costs of mobile broadband supporting remote monitoring purchased at publicly available commercial rates, and to submit invoices for reimbursement at the 65% HCF flat discount rate. Because the number of rural hospitals is limited<sup>22</sup> and the amount of these costs will be relatively low, there is little risk this would be a dramatic drain on limited RHC funding. Moreover, proceeding on a limited time pilot basis – three years, for example – would allow the Commission to assess the demand, impact, and benefits of such an approach.

We appreciate any attention you can give to this important matter and look forward to discussing this issue further.

Respectfully submitted,



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*Its Counsel*

cc Connect2HealthFCC Task Force

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<sup>22</sup> In 2012, the Commission estimated there were 1,674 rural hospitals eligible for RHC support. *See HCF Order*, 27 FCC Rcd at 16723-24, ¶ 98, n.266.