

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

Promoting Broadband Internet Access)	WC Docket No. 18-275
Service for Veterans)	DA 18-947

COMMENTS OF

NTCA–THE RURAL BROADBAND ASSOCIATION

To the Commission:

I. INTRODUCTION.

NTCA–The Rural Broadband Association (NTCA) hereby submits comments on the Public Notice issued by the Commission in the above-captioned docket.¹ The instant Public Notice responds to Section 504 of the RAY BAUM'S Act of 2018,² which directs the Commission to "submit to Congress a report on promoting broadband Internet access services for veterans, in particular low-income veterans and veterans residing in rural areas." The Commission explains that broadband can be particularly useful to connect veterans to health care resources, employment resources and Veterans Administration (V.A.) benefits. The instant Public Notice also follows a *Notice of Inquiry* in which the Commission sought comment on developing a Universal Service Fund pilot program to promote broadband-enabled telehealth services for low-income users.³ Together, these efforts evidence the Commission's recognition that telehealth and other broadband-enabled services can be especially useful for low-income and

¹ "Wireline Competition Bureau Seeks Comment on Promoting Broadband Internet Access Service for Veterans," Public Notice, Docket No. 18-275, DA 18-947 (Sep. 12, 2018) (Public Notice).

² Consolidated Appropriations Act, 2018, Pub. L. No. 115-141, Div. P–RAY BAUM'S Act of 2018, §§ 501-512, 132 Stat. 348, 1879 (2018).

³ *See, Promoting Telehealth for Low-Income Consumers: Comments of NTCA–The Rural Broadband Association*, Docket No. 18-213 (Sep. 10, 2018).

other discrete populations, and that the many values of "distance-conquering" communications technology are increasing and becoming more apparent as the applications it supports expand.

NTCA submits that veterans are uniquely suited to benefit from broadband and the specific gains that it can enable in education and health care. In these comments, NTCA will describe the Virtual Living RoomSM, a pilot telehealth program for Veterans that NTCA developed and which is operating in Eastern Kentucky. NTCA submits that the Virtual Living Room can be deployed as a successful "on ramp" to provide much-needed access immediately while also ultimately encouraging home adoption of broadband Internet access services. This, in turn, can facilitate expanded educational and employment engagement among veterans. These goals are encouraged by existing trends that reveal increasing educational achievements among veterans, as well as higher-than-average median incomes as compared to non-Veterans.

Veterans overwhelmingly come from, and return to, rural America. More than 40 percent of the Nation's military comes from rural America.⁴ Overall, veterans constitute 11 percent of the U.S. population and approximately 24 percent of the Nation's veterans live in rural areas.⁵ Most veterans are 55-years old or older.⁶ Overall, veterans face seemingly conflicting opportunities.

⁴ Ganzel, Bill, "Rural America Supplies More Recruits to the Military," (2009) (available at https://livinghistoryfarm.org/farminginthethe70s/life_07.html) (last viewed Oct. 8, 2018). *See, also*, Davenport, Ashley, "Rural Recruits Make Up Roughly Half of Military," AgWeb/Farm Journal (May 25, 2017) (available at <https://www.agweb.com/article/rural-recruits-make-up-roughly-half-of-military-naa-ashley-davenport/>) (last viewed Oct. 11, 2018), *and*; Kaine, Tim, "Who Bears the Burden? Demographic Characteristics of U.S. Military Recruits Before and After 9/11," Center for Data Analysis, Heritage Foundation (Nov. 2005) (available at <https://www.heritage.org/defense/report/who-bears-the-burden-demographic-characteristics-us-military-recruits-and-after-911>) (last viewed Oct. 11, 2018).

⁵ "Nearly One-Quarter of Veterans Living in Rural Areas, Census Bureau Reports," United States Census Bureau (Jan. 25, 2017) (available at <https://www.census.gov/newsroom/press-releases/2017/cb17-15.html>) (last viewed Oct. 12, 2018).

⁶ "National Survey of Veterans, Active Duty Service Members, Demobilized National Guard and Reserve Members, Family Members, and Surviving Spouses," U.S. Department of Veterans Affairs/Westat, at 53 (2010) (NSV) (<https://www.va.gov/survivors/docs/nvssurveyfinalweightedreport.pdf>) (last viewed Oct. 9, 2018).

On the one hand, because a disproportionate number of veterans come from and often return to rural areas, they can suffer from lack of access to medical resources as compared to urban areas. And, the unemployment rate for veterans is approximately double the National unemployment rate. However, a significant majority of veterans hold bachelors' degrees or higher academic achievements, and veterans' median income is higher than non-veterans. Moreover, most veterans report that their military service prepared them for the civilian workforce. NTCA submits, therefore, that veterans have the skills and experience to invigorate economic vibrancy in the rural areas in which they live, and that their access to broadband-enabled health care and educational resources can enable their greater successes in those regions.

II. BROADBAND CAN FACILITATE BETTER HEALTH CARE, EDUCATIONAL AND EMPLOYMENT OPPORTUNITIES FOR VETERANS.

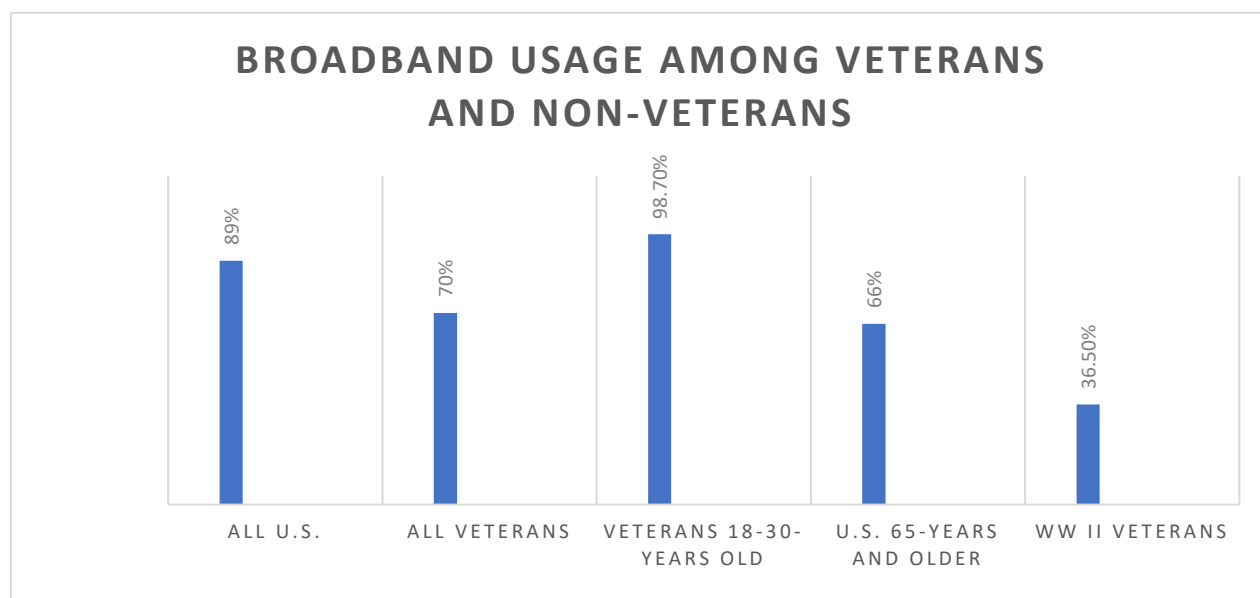
A. INCREASED USE OF BROADBAND AMONG VETERANS IS GENERALLY CONSISTENT WITH TRENDS FOR THE OVERALL U.S. POPULATION

Increased use of broadband among veterans is generally consistent with trends for the general U.S. population. Overall, broadband adoption across the United States is increasing. In 2000, 48 percent of Americans did not use the Internet. By 2018, that number had dwindled to just 11 percent.⁷ Broadband use among older Americans is increasing, as well: in 2000, 86 percent of adults 65-years old and older did not go online. By 2018, that number has decreased to 34 percent. Similar decreases in non-use can be seen among populations who lack a high-school diploma (81 percent in 2000 to 35 percent currently).⁸ Similar trends are reflected in veterans'

⁷ Anderson, Monica; Jiang, Jingjing; Perrin, Andrew, "11% of Americans Don't Use the Internet. Who are They?" Pew Research Center, at 1 (Mar. 5, 2018) (Anderson) (available at www.pewresearch.org/fact-tank/2018/03/05/some-americans-don't-use-the-internet-who-are-they/) (last viewed Oct. 5, 2018).

⁸ *Id.*

usage rates: 74.2 percent of veterans serving September 2001 or later reported using the Internet to search for veterans' benefits information, while only 35.6 percent of those who served during World War II reported such usage. Overall, younger veterans (those serving from September 2001 or later) are nearly three-times as likely to use the Internet than older veterans (defined as having served in World War II).⁹ More than 70 percent of veterans report using email regularly.¹⁰ And, in 2010, 68.8 percent of veterans reported interest in using the Internet to obtain information about Veterans' benefits. However, only 3.2 percent of veterans reported using the MyHealthVet website.¹¹ Certain of these data are summarized in the table below:



For all Americans, perceptions of value and relevance can stand as obstacles to broadband adoption. In 2013, Pew Research found that more than a third of Americans who did not use the Internet cited a perceived lack of relevance; nearly 20 percent cited price.¹²

⁹ NSV at 75.

¹⁰ NSV at 96.

¹¹ NSV at 75.

¹² Zickuhr, Kathryn, "Who's Not Online and Why," Pew Research Center (Sep. 25, 2013) (available at <http://www.pewinternet.org/2013/09/25/whos-not-online-and-why/>) (last viewed Oct. 12, 2018).

Affordability can be a factor that discourages a veteran's use of broadband: more than 21 percent of veterans have applied for disability benefits.¹³ Nearly three-quarters (73.4 percent) have received a disability rating, and approximately one-third (32.1 percent) of veterans with a service-connected disability report that it has interfered with their employment or employment prospects. The current compensation rate for a veteran with a 100 percent disability rating, with spouse and child, is \$3,261.10 per month.¹⁴ At \$39,312 annually, that income is higher than income-based Lifeline eligibility (\$28,053).¹⁵ Accordingly, unless a veteran qualifies for a Lifeline rate via SNAP, Medicaid or other programs, affordability could be a significant factor in a veteran's subscription to broadband.

These data indicate that the promotion of broadband usage among Veterans, and particularly for V.A. telehealth and other online benefits, is an achievable goal that can be facilitated by current trends toward increased broadband usage among both Veterans and non-Veterans populations.

B. THE NTCA VIRTUAL LIVING ROOM TELEHEALTH PROGRAM DEPLOYS BROADBAND TO MEET VETERANS' HEALTH NEEDS.

Broadband can facilitate better health care, educational and employment opportunities for Veterans. However, these benefits are obtainable only if (a) broadband is available and (b) the prospective user adopts the service. In a 2014 report,¹⁶ NTCA described several factors that

¹³ NSV at 106.

¹⁴ Veterans Compensation Benefits Rate Tables - Effective 12/1/17 (available at https://www.benefits.va.gov/compensation/resources_comp01.asp) (last viewed Oct. 11, 2018).

¹⁵ Universal Service Administrative Company, "Do I Qualify?" (available at <https://www.lifelinesupport.org/ls/do-i-qualify/federal-poverty-guidelines.aspx>) (last viewed Oct. 8, 2018).

¹⁶ See, Schadelbauer, Rick, "Conquering the Challenges of Broadband Adoption," Smart Rural Community, NTCA—The Rural Broadband Association (2014) (https://www.ntca.org/sites/default/files/documents/2017-12/SRC_whitepaper_CCBA.pdf).

contribute to broadband adoption, including perceived relevance and affordability. Last year, NTCA addressed those factors in a veterans telehealth pilot program. The Virtual Living Room (VLR, or VALOR) is a venue at which veterans can access, at no-cost, V.A. telehealth and other online services. The environs of the Virtual Living Room are designed to match its name: a physical space designed and furnished to be as comfortable as a veteran's home. The venue is outfitted with hardware and peripherals to support the veteran's use of V.A. telehealth and other online services. A robust broadband connection provides users with access to medical specialists at distant facilities. User privacy is contemplated through the use of visual barriers, white-noise machines and other devices.

The VALOR model conquers the barriers of accessibility and affordability by placing VALOR sites in publicly-accessible, no-cost locations. These may include an American Legion or Veterans of Foreign Wars (VFW) hall; a firehouse; or, as is the case with the pilot VALOR site in McKee, Kentucky, the public library. VALOR can support Clinical Video Telehealth, which uses "real-time interactive video conferencing . . . to assess, treat and provide care to a patient remotely," and Home Telehealth, which can be used to "coordinate non-institutional care using health informatics, disease management, and home remote monitoring technologies to manage diabetes, chronic heart disease, hypertension" and other conditions. The VALOR program can also support pre- and post-surgical consultations. Additionally, "store and forward" technology can store data, images, sounds and video that can be used to assist cardiologists, dermatologists, and other providers.

The accessibility of free technology allows users to not only obtain the immediate benefits of V.A. telehealth services, but also enables users to consider the value proposition of a

home subscription, which brings those telehealth services closer and can also enable 24-hour access. However, regardless of whether a user undertakes a home subscription, the VALOR site remains accessible to the veteran and enables mitigation of another potential barrier to usage, namely, unfamiliarity with the technology or hesitance to engage telehealth. This is overcome not only by siting VALORs in community spaces that are familiar to the user, but, and as described above, also by furnishing the site as a comfortable, inviting space that still offers privacy during use. This design approach can encourage otherwise reluctant users to engage the technology with support from fellow veterans or professional or volunteer social workers. The Attachment to these Comments provides a complete description of the VALOR model, including rural health data that illustrates the need for and usefulness of expanded access to V.A. telehealth resources in rural areas.

C. BROADBAND CAN ASSIST POST-SEPARATION EMPLOYMENT.

Broadband is critical to employment. The stakes for veterans are high. In 2010, nine percent of veterans reported that they are looking for work.¹⁷ This is approximately double the 2007 unemployment rate for all Americans, as reported by the Bureau of Labor Statistics.¹⁸ However, once in the workforce, the prospects of a veteran's financial ability to afford broadband are brighter than for non-veterans. For veterans who are working, the median salary is higher for both male and female veterans as compared to non-veterans (13.32 percent higher for male veterans, and an astonishing 45.78 percent higher median income for female veterans as compared non-veteran females).¹⁹ These higher trends may be due to military experience,

¹⁷ NSV at 57.

¹⁸ NSV at 159.

¹⁹ "Median Income of Year-Round Full-Time Working Veterans in the U.S. in 2016 by Gender," Statista (<https://www.statista.com/statistics/186056/earnings-of-veterans-in-the-us-by-gender/>) (last viewed Oct. 5, 2018).

educational attainment, or both. The proportion of veterans with a bachelor's degree or higher increased 6 percent from 2001 to 2010;²⁰ nearly one-third of all veterans hold a bachelor's degree.²¹

Veterans' post-separation educational achievement can also be facilitated by V.A. education or training benefits. More than 64 percent of veterans used V.A. education benefits to obtain a degree; 23.5 percent engaged in vocational or technical training leading to a certificate or a diploma; and, 7.5 percent reported participating in an apprenticeship program. Broadband access can augment veterans' attainment of post-separation employment; more than 60 percent of Veterans report that military service prepared them for the civilian workforce.²²

With these advantages at the outset, veterans are in an enviable position to leverage broadband to conquer the job market. The role of broadband in securing educational and employment gains for veterans is critical. According to Pew Research, a majority of adults in the United States have searched for jobs online (54 percent) and 45 percent have applied for a job online.²³ And, among Americans who looked for work in 2013-2015, 79 percent cited use of online resources and information.²⁴ Online resources, in fact, ranked higher than personal connections, professional affiliations and employment agencies.²⁵ More than a third ranked

²⁰ NSV at 54.

²¹ NSV at 63.

²² DeSilver, Drew, "Most-recent Veterans Say Military Prepared Them for Civilian Work," Pew Research Center, at 1 (Nov. 1, 2013) (DeSilver) (available at <http://www.pewresearch.org/fact-tank/2013/11/11/most-recent-veterans-say-military-prepared-them-for-civilian-work/>) (last viewed Oct. 5, 2018).

²³ Smith, Aaron, "Searching for Work in the Digital Era," Pew Research Center, at 1 (Nov. 19, 2015) (available at <http://www.pewinternet.org/2015/11/19/searching-for-work-in-the-digital-era/>) (last viewed Oct. 5, 2018).

²⁴ *Id.*

²⁵ *Id.*

online resources as the most important element of their job search.²⁶ Moreover, broadband also enables telework opportunities, which encompass numerous industries.

Telework is engaged by 2.9 percent of the U.S. workforce (the Federal government is the Nation's largest employer of teleworkers) and grew 115 percent in the past decade.²⁷ Telework can improve and sustain local economies by retaining residents who might otherwise move to be closer to work, and firms with telework opportunities can engage more effective recruiting by hiring employees from lower-cost-of-living regions. Last year, the Wisconsin legislature passed the "Telework Forward! Community Certification Act," which establishes a protocol to certify communities that enable and promote the ability of residents to telework.²⁸ For veterans, who predominantly hail from and return to rural areas, telework opens broader vistas of employment opportunities and enables employers to advantage themselves of skilled veterans.

III. CONCLUSION.

As described above, benefits of broadband are particularly useful to veterans for health care, education and employment. Data indicate that veterans' use of broadband is increasing, consistent with general National trends. Moreover, the prevalence of veterans in rural areas drives a need for connectivity that enables veterans' use of telehealth services; the NTCA Virtual Living Room demonstrates the effective partnering of private industries to increase effective use of V.A. telehealth and other online services. NTCA submits that the use-case for veterans' use of

²⁶ *Id.*

²⁷ "2017 State of Telecommuting in the U.S. Employee Workforce," Global Workplace Analytics and Flexjobs, at 7, 14, 15 (2017) (available at <https://www.flexjobs.com/2017-State-of-Telecommuting-US/>).

²⁸ Assembly Bill 917, 2017 Wisconsin Act 342, Telecommuter Forward! Community Certification, enacted Mar. 20, 2018; published Apr. 17, 2018 (*see*, <https://docs.legis.wisconsin.gov/2017/proposals/ab917>) (last viewed Oct. 11, 2018).

broadband is evident, and that creative and collaborative efforts to align technology with veterans' skills and needs can spark a virtuous cycle of deployment, usage and demand.

Respectfully submitted,

s/ Joshua Seidemann
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A Telemedicine Initiative to Serve Our Nation's Veterans

NTCA–The Rural Broadband Association
DOCKET NO. 18-275, DA 28-947
Oct. 12, 2018 - Attachment

ABSTRACT

The Virtual Living Room/VALORSM initiative was developed to improve Veterans' health care by promoting the availability of, and enabling access to, telemedicine resources at no cost to U.S. service Veterans in rural areas of the United States.

Existing U.S Department of Veterans Affairs (VA) telehealth services enable Veterans to access medical treatment from their homes and can replace or augment certain visits to VA facilities. However, barriers to adoption among otherwise eligible users may include Veterans' lack of broadband access; affordability; or, reluctance to use the technology.

Members of NTCA–The Rural Broadband Association (NTCA) provide broadband in rural areas of the United States. The Virtual Living Room/VALOR model leverages the expertise and community commitment of these nearly 850 locally-operated rural broadband providers by creating “Virtual Living Rooms” at which rural Veterans can access VA telehealth services at no cost and with necessary peer and technical support.

STATEMENT OF NEED

Rural Americans Face Unique Health Care Challenges Nearly half of all Americans are diagnosed with at least one chronic illness;ⁱ more than 20 percent of the U.S. population faces at least two chronic conditions.ⁱⁱ Chronic disease causes about 75 percent of health care costs and contributes to about 70 percent of all deaths in the United States.ⁱⁱⁱ These conditions are exacerbated in rural areas which areas contain about 20 percent of the U.S. population. Rural residents are on average poorer and older than in urban areas; rural residents also have higher dependency rates than urban areas.^{iv} These rural health challenges are compounded by physician shortages and lack of access to nearby health care facilities. Although 25 percent of the U.S. population resides in rural areas, only 10 percent of the Nation's physicians are in rural America.^v And, rural areas have 70 percent fewer specialists per 100,000 people. Additionally, poverty increases the risk of complications from chronic conditions by decreasing the likelihood that these individuals will have health insurance at all or otherwise be able to absorb the costs of treatment and preventative care.^{vi}

Telemedicine Can Enable Better Health Care Numerous studies have demonstrated the health benefits of telemedicine across multiple medical conditions. A representative summary of data from these studies is provided in Appendix A. The economic benefits of telemedicine and telehealth have also been found to create substantial health care cost savings, as well as ancillary savings relating to travel to distant facilities and lost wages. These benefits are especially compelling in rural areas,^{vii} as described in Appendix B.

Veterans Benefit from Telemedicine Veterans constitute 11 percent of the U.S. population and approximately 24 percent of the Nation's Veterans live in rural areas^{viii} (in 2011, approximately 3.9 million veterans lived in rural America).^{ix} As noted above, access to physicians in rural areas is a persistent challenge. As the operator of the nation's largest health care system, the VA is estimated to have spent \$59 billion on health care in 2014.^x Although the VA has health centers throughout the United States, many rural veterans nevertheless face transportation and access difficulties. To address this problem at least in part, in 2106, the VA provided more than 2.17 million telehealth interactions to more than 702,000 patients, or approximately 12 percent of veterans enrolled in the VA health care system.^{xi}

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The VA estimates that for Veterans enrolled in Home Telehealth for non-institutional care and chronic illness management, bed days of care were reduced by 59 percent and VA hospital admissions were reduced by 31 percent in FY16. VA TeleMental Health services in FY16 also reduced VA hospital admissions by 32 percent.^{xiii} And, data presented in 2014 found that clinical video telehealth reduced bed days of care by 38 percent for mental health care.^{xiii} Across all VA telehealth programming (including management and treatment of diabetes, congestive heart failure, hypertension, COPD and emotional health issues), VA telehealth is associated with a 25 percent reduction in bed days of care and a 19 percent reduction in hospital admissions. On average, these and other savings added up to \$6,500 per patient in 2012.^{xiv} Remarkably, patient satisfaction for telehealth was high: 84 percent for Home Telehealth; 95 percent for "store and forward;" and 94 percent for clinical video.^{xv} Of nearly 150,000 Veterans who are enrolled in Home Telehealth services, more than 41,000 can live independently in their own homes.^{xvi}

The Virtual Living Room/VALOR initiative is intended to enable a greater population of Veterans to enjoy these health care improvements and savings by increasing access to, familiarity with, and use of VA telehealth services.

PROGRAM DESCRIPTION

The Virtual Living Room Promotes Telehealth for Veterans Veterans in rural areas face the same challenges as civilian cohorts. Veterans, however, may also suffer from combat-related injuries, both physical and emotional. These are compounded, generally, by the higher rural incidence of many chronic health conditions. The VA has a comprehensive telehealth solution, but the benefits of those offerings can be unlocked only through broadband access. The Virtual Living Room/VALOR is intended to resolve that barrier and pave the way for greater telehealth usage.

Barriers to adoption may include Veterans' access to broadband; affordability; or reluctance to embrace telemedicine. Additionally, some evidence indicates that older Americans are less inclined to adopt telemedicine than younger users who are more familiar with the technology.

The Virtual Living Room/VALOR model is intended to meet each of these conditions. In the first instance, the matter of accessibility and affordability is resolved by placing VALOR sites in publicly-accessible, no-cost locations. These may include a Legion or VFW hall; a firehouse; or, as is the case with the pilot VALOR site in McKee, Kentucky, the public library. VALOR can support Clinical Video Telehealth, which uses "real-time interactive video conferencing . . . to assess, treat and provide care to a patient remotely," and Home Telehealth, which can be used to "coordinate non-institutional care using health informatics, disease management, and home remote monitoring technologies to manage diabetes, chronic heart disease, hypertension" and other conditions (in FY12, VA telehealth supported chronic mental health management for more than 7,000 patients.^{xvii}) The VALOR program can also support pre- and post-surgical consultations. Additionally, "store and forward" technology can store data, images, sounds and video that can be used to assist cardiologist, dermatologists, and other providers.

The accessibility of free technology allows users to not only obtain the immediate benefits of VA telehealth services, but also enables users to consider the value proposition of a home subscription, which brings those telehealth services closer and can also enable 24-hour access. However, regardless of whether a user undertakes a home subscription, the VALOR site remains accessible to the veteran and enables mitigation of the third potential barrier to usage, namely, unfamiliarity with

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the technology or hesitance to engage telehealth. This is overcome not only by siting VALORs in community spaces that are familiar to the user, but also by furnishing the site as a comfortable, inviting space. Photos attached to this proposal (Appendix C) illustrate the care taken to replicate an ordinary living room in which many Veterans may access telehealth, and to avoid a sterile, clinical environment. This design approach can encourage otherwise reluctant users to engage the technology with support from fellow Veterans or professional or volunteer social workers.

NTCA Members Are Uniquely Positioned to Enable Veterans Telehealth Veterans living in rural areas served by NTCA members enjoy a distinct advantage in these regards. NTCA represents approximately 850 small, locally-operated rural telecom providers, all of whom have deployed broadband to some extent in their communities.^{xviii} NTCA's most recent annual survey reveals that 49 percent of respondents' broadband customers are served via fiber to the home (FTTH), and 55 percent of survey respondents with a fiber deployment strategy plan to offer FTTH to more than 75 percent of their customers by year-end 2018, while 78 percent plan to offer fiber to the home to at least 50 percent of their customers over the same time-frame.^{xix} These data demonstrate that most NTCA members have the technical capability to support the VALOR initiative.

APPENDIX A

Rural Health Indices and Telemedicine

Rural areas present unique health challenges as compared to urban areas. By way of example, individuals living in rural areas often have increased numbers of medical conditions such as: diabetes (17 percent higher),^{xx} hypertension,^{xxi} obesity (in women, 23 percent vs. 16 percent in large metro areas),^{xxii} cancer, edentulism (total tooth loss) among persons 65 and older,^{xxiii} and injury. Higher rates of high-risk behaviors including smoking, physical inactivity, poor diet and limited use of seatbelts are also present in rural areas.^{xxiv} Rural residents also tend to travel further for medical care than urban counterparts.^{xxv} Furthermore, in 2016, it was estimated that 59 million Americans live in Health Professional Shortage Areas.^{xxvi}

National use and acceptance of telemedicine is increasing. A 2015 Nielsen survey probed physicians' opinions on telemedicine, and uncovered encouraging results. Of the physicians surveyed, 22 percent saw telemedicine as an important step toward reducing the costs of care, and 39 percent surmised it is good for patients. An impressive 42 percent see telemedicine as “an important evolution in the practice of medicine” (31 percent proposed that is “not worth the hype,” yet 39 percent agreed that it is “good for patients”).^{xxvii} The Nielsen survey also revealed that patients are increasingly viewing telemedicine as a viable option. Thirty-six percent of respondents desired access to a 24/7 medical line (14 percent reported already having one); 19 percent wanted access to a video consult with their primary physician (only two percent reported having one); and 26 percent wanted the ability to submit a photo of their condition or treatment as an antecedent to receiving a telephone or email consult (three percent of respondents currently have this ability). This last category, which is essentially an electronic physician referral, can help avoid unnecessary office visits and associated costs. For example, a dermatological condition illustrated by a high definition photo could tell a doctor whether an over the counter remedy or, alternatively, an office visit might be in order. Kaiser Permanente, which performed 14 million “virtual visits” in 2015, predicted that telemedicine interactions will surpass in-person visits by 2018.^{xxix} And, it is estimated that 50 million Americans would switch their primary care providers to obtain access to video visits.^{xxx}

A 2017 survey found that 67 percent of patients acknowledge that they have delayed care, citing a variety of reasons, including: cost (23 percent); time needed to see a doctor or nurse (23 percent); assumption that the “problem would go away on its own” (36 percent); and, “too busy” (13 percent).^{xxxii} Costs and time for doctor visits were of special concerns in rural areas where residents face either poverty or distance from physicians, or both. Telehealth interactions can help reduce these concerns, which are especially troubling when compared with data that reveals that among those who delayed care, 31 percent characterized their health issues as “somewhat serious” or “very serious.”^{xxxiii}

APPENDIX B

Anticipated Economic Benefits of Rural Telemedicine

Many forays into telemedicine focus on anticipated gains in medical treatments and patient outcomes. The economic benefits of telemedicine are an equally important aspect of this inquiry. Recent studies support both qualitative and quantitative benefits of telemedicine. By way of example, one program that focused on common acute care diagnoses among Medicare Advantage and Medicaid patients resulted in “hospital at home” costs that were 19 percent lower than costs for in-patients. Patient outcomes for “hospital at home” users in the groups were equal to or better than their in-patient counterparts.^{xxxiii} Another study examined the cost of telemedicine treatment for chronic care patients, whose treatment collectively constitutes nearly 80 percent of U.S. health care costs. In this study, costs for Medicare beneficiaries decreased 7.7-13.3 percent.^{xxxiv}

NTCA recently published a paper that documents the anticipated economic benefits of rural telehealth deployments; that paper is attached to these comments as Appendix A. The paper concluded that economic incentives to deploy rural telemedicine are compelling. The United States spends more on health care than any other Organization for Economic Cooperation and Development (OECD) nation [is this a commonly known term/organization among health care providers?], both in absolute terms and as a percentage of gross domestic product (GDP).^{xxxv} Although the decision to implement telemedicine is unique to each medical facility, the anticipated benefits are notable. These benefits also extend beyond the hospital, to patients, and local labs and pharmacies. National average estimates of cost savings include:

- Travel expense savings: \$5,718 per medical facility, annually;
- Lost wages savings: \$3,431 per medical facility, annually;
- Hospital cost savings: \$20,841 per medical facility, annually;
- Increased local revenues for lab work: from \$9,204 to \$39,882 per type of procedure, per medical facility, annually; and
- Increased local pharmacy revenues: from \$2,319 to \$6,239 per medical facility annually, depending on the specific drug prescribed.^{xxxvi}

APPENDIX C

Local Library Offers Private Space for Rural Veterans' Tele-mental Health Services

By Mark Sulfridge, Marketing Representative, Peoples Rural Telephone Cooperative

Rural Veterans in southern Kentucky have a new, private Virtual Living Room (VLR) to use for medical appointments, instead of driving hours to the nearest VA facility.



Virtual Living Room waiting room at the Jackson County Public Library in McKee, Kentucky

Through the telemedicine program, Veterans can use a private room in the Jackson County Public Library in McKee, Kentucky to speak directly to their VA provider by web cam and computer. The Peoples Rural Telephone Cooperative (PRTC) provides the high-speed internet connection, at no cost, to connect Veterans to their medical providers.

"The concept is to provide a comfortable living room environment for the Veterans so they won't have to drive three hours for care." PRTC Chief Executive Officer Keith Gabbard said. "PRTC is excited to be part of this program," Gabbard shared, "Veterans are the backbone of this country, and we want to do what we can to help them."

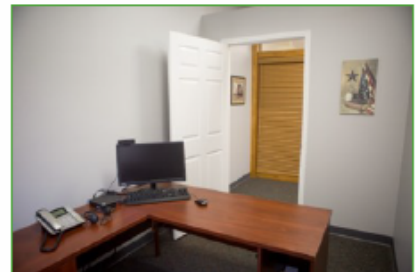
The VLR program is the first of its kind in the country. The U.S. Department of Veterans Affairs' (VA) Office of Rural

Health (ORH) helped to connect PRTC with the Lexington Veterans Administration Medical Center, NTCA—The Rural Broadband Association, and the Jackson County Public Library to launch this pilot program.

"What I see is a better future for our Veterans" said Dr. Tuyen Tran of the Lexington VA Medical Center, "If we do this well, we can mimic this model in other places." Initially, the VLR program allows Veterans to speak with mental health care providers, but the intent is to open the facility for other doctor visits at some point in the future. The program is set to be especially helpful for Veterans who do not have access to high-speed internet connections in their homes or who lack a private space for one-on-one talks with their health care providers.

Telemedicine programs are not new to the VA system, as they began as a way to increase patient access and reduce long waits for care.

In 2016, more than 455,000 rural Veterans used telehealth technology to connect to their VA health care providers. In 2017, the Office of Rural Health allocated \$106 million to fund 24 Enterprise-Wide Telehealth Initiatives.



Private Virtual Living Room at the library

Watch a [video](https://youtu.be/qM9yqZc0m0M) of the launch of the Virtual Living Room at <https://youtu.be/qM9yqZc0m0M>.

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REFERENCES

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- ⁱ "E-Health and Telemedicine: Report to Congress," U.S. Department of Health and Human Services, at 4 (internal citation omitted) (Aug. 12, 2016) (available at <https://aspe.hhs.gov/system/files/pdf/206751/TelemedicineE-HealthReport.pdf>) (last viewed Mar. 8, 2018) (HHS Report to Congress).
- ⁱⁱ *See, Rural Women's Health*, National Rural Health Association Policy Brief at 2 (NRHA) (internal citations omitted) (available at [https://www.ruralhealthweb.org/getattachment/Advocate/Policy-Documents/RuralWomensHealth-\(1\).pdf.aspx](https://www.ruralhealthweb.org/getattachment/Advocate/Policy-Documents/RuralWomensHealth-(1).pdf.aspx)) (last viewed Mar. 15, 2018, 13:39). *See, also, Rural Populations and Health: Determinants, Disparities and Solutions: Book Review*, Preventing Chronic Disease, Centers for Disease Control and Prevention, Vol. 10 (Jun. 27, 2013) (CDC).
- ⁱⁱⁱ HHS Report to Congress, at 4 (internal citation omitted).
- ^{iv} NRHA at 2.
- ^v "What's Different About Rural Health Care?" National Rural Health Association, at 2 (www.ruralhealthweb.org/go/left/about-ruralhealth) (NRHA II).
- ^{vi} NRHA at 1.
- ^{vii} *See*, Schadelbauer, Rick, "Anticipating Economic Returns of Rural Telehealth," Smart Rural Community, NTCA–The Rural Broadband Association, Arlington, VA (2017) (available at http://www.ntca.org/images/stories/NTCA_images/SmartRuralCommunity/anticipatingeconomicreturnsofruraltelehealth_epub.pdf) (last view May 19, 2017, 13:38).
- ^{viii} "Nearly One-Quarter of Veterans Living in Rural Areas, Census Bureau Reports," United States Census Bureau (Jan. 25, 2017) (available at <https://www.census.gov/newsroom/press-releases/2017/cb17-15.html>) (last viewed Oct. 12, 2018).
- ^{ix} Rural Veterans at a Glance, U.S.D.A. Economic Research Service Brief No. 25 (2013).
- ^x *See*, Tara O'Neill Hayes, "Primer: Veterans Health Care," American Action Forum (Oct. 7, 2015), *citing* Veterans Administration Budget Summary, www.va.gov/budget/docs/summary/Fy2016-BudgetInBrief.pdf (https://www.americanactionforum.org/insight/primer-veterans-health-care/#_edn31) (last viewed May 24, 2017, 14:09).
- ^{xi} "Telehealth and Remote Patient Monitoring Use in Medicare and Selected Federal Programs: Report to Congressional Committees, U.S. Government Accountability Office, GAO-17-365 (Apr. 2017) (available at <https://www.gao.gov/assets/690/684115.pdf>) (last viewed Mar. 7, 2018, 15:50).
- ^{xii} Department of Veterans Affairs Fact Sheet (2017) (available at https://www.va.gov/COMMUNITYCARE/docs/news/VA_Telehealth_Services.pdf) (last viewed Mar. 7, 2018, 13:52).
- ^{xiii} "7 Key Findings on VA Telehealth Services Outcomes," Beckers Hospital Review (Jun. 2014) (available at <https://www.beckershospitalreview.com/healthcare-information-technology/7-key-findings-on-va-telehealth-services-outcomes.html?tmpl=component&print=1>) (last viewed Mar. 8, 2018, 16:23) (Beckers Hospital Review).
- ^{xiv} "Telehealth: Helping Hospitals Deliver Cost-Effective Care," American Hospital Association, Washington, D.C., at 2 (2016) (<http://www.aha.org/content/16/16telehealthissuebrief.pdf>) (last viewed May 23, 2017; 16:42). The cost to deploy telehealth was estimated at \$1,600 per patient per year.
- ^{xv} Beckers Hospital Review, *supra* note xiii.

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^{xvi} "Telehealth Services in the United States," Darkins, Adam, Department of Veterans Affairs, at 7 (2014) (available at http://assets.fiercemarkets.net/public/sites/govit/vatelehealthpresentation_adam_darkins.pdf) (last viewed Mar. 8, 2018, 16:30) (Darkins).

^{xvii} Darkins at 9.

^{xviii} See, "NTCA 2015 Broadband/Internet Availability Survey Report," NTCA–The Rural Broadband Association (Jul. 2016) (<https://www.ntca.org/images/stories/Documents/Advocacy/SurveyReports/2015ntcabroadbandsurveyreport.pdf>) (last viewed May 9, 2017, 11:25) (NTCA 2015 Broadband Survey Report).

^{xix} NTCA 2015 Broadband Survey Report at 3.

^{xx} NRHA at 2.

^{xxi} NRHA II at 1.

^{xxii} NRHA, *supra* n.24, at 2.

^{xxiii} Rural Health Disparities, Rural Health Information Hub at 2 (www.ruralhealthinfo.org/topics/rural-health-disparities).

^{xxiv} CDC.

^{xxv} NRHA, *supra* n.24, at 4.

^{xxvi} "E-Health and Telemedicine: Report to Congress," U.S. Department of Health and Human Services, at 2 (internal citation omitted) (Aug. 12, 2016) (available at <https://aspe.hhs.gov/system/files/pdf/206751/TelemedicineE-HealthReport.pdf>) (last viewed Mar. 8, 2018).

^{xxvii} "Better Together: High Tech and High Touch Consumer Health Care Survey Results," Council of Accountable Physician Practices, Washington, D.C., at 37 (Nov. 4, 2015) (<http://accountablecarephysicians.org/wp-content/uploads/2015/11/CAPP-SHP-Consumer-Survey-Full-Presentation-103015.pdf>) (last viewed May 23, 2017, 11:06) (Nielsen 2015).

^{xxviii} Nielsen 2015 at 14, 20, 24, 30.

^{xxix} Pearl, Robert, "Engaging Physicians in Telehealth," *New England Journal of Medicine: Catalyst* (<http://catalyst.nejm.org/engaging-physicians-in-telehealth/>) (updated Mar 29, 2016; last viewed May 23, 2017, 11:44).

^{xxx} Telehealth Index: 2017 Consumer Survey, American Well at 2 (online polling of 4,000 adults conducted by Harris Poll) (http://go.americanwell.com/rs/335-QLG-882/images/American_Well_Telehealth_Index_2017_Consumer_Survey.pdf) (last viewed May 23, 2017, 12:36) (American Well 2017).

^{xxxi} American Well 2017 at 5.

^{xxxii} *Id.*

^{xxxiii} Lesley Cryer, Scott B. Shannon, Melanie Van Amsterdam and Bruce Leff, "Costs for 'Hospital at Home' Patients Were 19 Percent Lower, With Equal or Better Outcomes Compared to Similar Inpatients," *Health Affairs June 2012*, 31:61237-1243; doi:10.1377/blthaff.2011.1132.

^{xxxiv} "Integrated Telehealth and Care Management Program for Medicare Beneficiaries with Chronic Disease Linked to Savings," Laurence C. Baker, Scott J. Johnson, Dendy Maculay and Howard Birnbaum, *Health Affairs September 2011*, 30:91689*1697; doi:10.1377/blthaff.2011.0216.

NTCA–The Rural Broadband Association
DOCKET NO. 18-275, DA 28-947
Oct. 12, 2018 - Attachment

^{xxxv} “Health Expenditure and Financing,” Organization for Economic Cooperation and Development, “OECD.Stat,” (<http://stats.oecd.org/Index.aspx?DataSetCode=SHA>) (last viewed May 23, 2017, 13:03).