Broadband USA Applications Database

Applicant Name:  RECTOR & VISITORS OF THE UNIVERSITY OF VIRGINIA

Project Title:  Virginia Partnership for Elder Telehealth

Project Type:  Sustainable Broadband Adoption

_______________________ Executive Summary _______________________

The dramatic increase in the aging population presents special challenges for healthcare and protective services. Increased longevity is leading to a rise in age-related chronic illnesses and disabilities such as diabetes and Alzheimer's disease. Shortages in the healthcare workforce, especially among geriatric physicians and nurses, are leading to health care disparities for vulnerable elderly populations. In the rural regions of southwest and central Virginia that are the target areas for this proposal, the elderly have poorer health than their urban counterparts due to various socio-economic and geographic factors: they are more likely to be widowed and to live alone instead of in group settings; they have received less formal education; have lower incomes and depend more heavily on Social Security; and have problems accessing health care facilities due to distance and lack of public transportation. Recent natural disasters, such the snowstorms this past winter and Hurricane Katrina, have also exposed the shortcomings in America's emergency preparedness systems to ensure the safety of seniors and individuals with disabilities. Emerging health information technologies (HIT), including telehealth systems, electronic health records, and communication infrastructures, are increasingly being deployed as a solution to meet the growing health care and safety needs for the rapidly aging population. HIT can build capacity for management of chronic conditions, disease prevention, and ability of elders to live independently. Telehealth systems using remote patient monitoring and electronic visits have been shown to improve care coordination in both home and clinical care settings. Telemedicine creates access to special care to address health care disparities for those who live in medically underserved rural regions. Information systems can help emergency responders identify and locate seniors and improve coordination when an emergency or disaster is multijurisdictional. Overall, HIT enables the transformation to higher quality, more cost efficient, patient focused health care by service providers, as well as increased engagement of patients and families in managing their health. Yet deployment of HIT is inhibited by the low rates of broadband adoption by elderly populations. According to the most recent FCC survey, individuals 65 years and over only have a 35% at home broadband adoption rate; seniors with disabilities lag further behind at a rate of 25%. Key barriers include lack of digital literacy, apprehension about privacy, and concerns about relevance. The problem is even more acute for rural residents, those with low educational attainment, socio-economic status, and racial and ethnic minorities. The goal of this project is to advance broadband adoption and awareness so that vulnerable elderly populations, as well as their family and community caregivers, can become meaningful users of HIT. It will provide equipment and training in HIT to health care providers, community service agencies and emergency responders. The major objective will be improvement of health care delivery services through deployment of mobile telehealth systems that can be used in home care settings. Overall, the
The project will establish a comprehensive broadband infrastructure that brings together all stakeholders - individuals, caregivers, physicians, nurses, government agencies and community services - to improve population health and safety for seniors. This initiative is directed by the University of Virginia (UVA), a national leader in broadband infrastructure development for health care. The University has organized a public/private sector partnership - the Virginia Partnership for Elder Telehealth (VPET) -- with the resources and expertise to facilitate widespread adoption including: *The Virginia Department for the Aging (VDA), which is developing critical electronic platforms for coordination of aging services on a state and regional basis, including an emergency assistance registry and health information exchange; *Intel Digital Health, a leader in developing HIT infrastructures for aging populations; *Comcast, the major broadband service provider in the service region, which is leading community campaigns in digital literacy and broadband adoption. The partnership will work on a community level with the Area Agencies on Aging (AAAs) in central and southwest Virginia. The total population ages 60 and over is estimated at 122,000 in the following planning districts: Mountain Empire Older Citizens, Inc. - Counties of Lee, Scott and Wise, City of Norton; Jefferson Area Board for Aging - Counties of Albemarle, Fluvanna, Greene, Louisa, Nelson, City of Charlottesville; Rappahannock-Rapidan Community Services Board - Counties of Culpeper, Fauquier, Madison, Orange, Rappahannock; Valley Program for Aging Services - Counties of Augusta, Bath, Highland, Rockbridge, Rockingham, Cities of Buena Vista, Harrisonburg Lexington, Staunton, Waynesboro. The objectives will be to serve a total of 18,000 individuals through the direct application of telehealth technology for health care services, and 55,000 through public awareness, education and outreach programs. The overall goal will be to add 35,000 new subscribers. The AAAs will serve as the Community Anchor Institutions to facilitate broadband adoption, education, and awareness for the elderly populations in their service regions. They will be instrumental in the application of the key innovation in this project -- a community engagement model developed by the Pew Partnership for Civic Change. This is both a structure and a process for bi-directional, collaborative effort between the partners, individuals, health care providers, and other stakeholders. It builds a foundation of trust and communication that can overcome the barriers faced by elderly populations in learning and using broadband applications, and makes them active partners, not just participants, in the health care delivery process. The model will also enable other innovations: *Community-based research. Broadband and related technologies will enable population-based research that provides a feedback loop to government agencies, health care providers, and academic institutions to improve services, treatments and public policy. *Internet Intervention Tools that can be used by individuals, family caregivers, and primary health care providers for assessments related to driving safety, cognitive impairment, and nutrition. The economic benefits of VPET include: *Creation of jobs within the communities to be served. More than 85% of patients seen via telehealth remain within their local communities, thereby enhancing the economic viability of the local healthcare facilities, which themselves are major employers in a community. It will generate new job opportunities in the home health care industry, projected by the Bureau of Labor Statistics to be among the fastest growing occupations in the US. *Reduction of healthcare costs. Telehealth has been shown to result in significant savings through reductions of preventable hospitalizations, prevention of hospital readmissions, and reduction of emergency room visits.