More and more people across the US have access to broadband connectivity, but low-income Americans and African-Americans continue to face barriers to broadband use. Only 35% of families with annual incomes below $20,000 across the nation have broadband access, while at least 80% of families with incomes above $50,000 have access. African-Americans face disparities as well, with 46% using broadband services, compared to 65% of Whites. In the District of Columbia, more than half of the population lives in federally-recognized medically underserved areas, overlapping substantially with low-income, predominately African-American neighborhoods. Socio-economic and health problems co-occur in these high-need areas of the District, which have the some of the highest rates of chronic disease, poor health status, and premature mortality in DC. Wards 5, 7, and 8 of the District have the highest percentages of African-American residents, and Wards 7 and 8 have the greatest percentages of residents living in poverty. These are the populations shown nationwide to experience disproportionate barriers to broadband access. In underserved wards of the District, where unemployment and poverty are high, access to health care and social services are lacking, and residents often struggle just to meet basic needs, it follows that broadband penetration rates would be low. The DC Primary Care Association (DCPCA) has worked since 1996 to improve access to health care in these areas of the District, in part through the development of innovative health information technology (HIT) solutions to be used by health care providers. To increase broadband adoption in low-income, predominately African-American communities, relevance, affordability, and usability of broadband services and technologies must be considered. The proposed project will work with patients at DCPCA’s member community health centers (CHCs) serving low-income residents across the city, but with a particular focus in Wards 5, 7, and 8. Many of these patients are co-diagnosed with multiple chronic conditions, meaning a significant percentage of the patient base requires regular close observation, monitoring, home care, and medication management. Over the past four years, DCPCA worked with a number of clinics to implement Electronic Health Record (EHR) systems and develop the DC Regional Health Information Organization (DC RHIO) now providing secure, live health information exchange for six CHCS and two hospitals in DC. DCPCA was also recently awarded a cooperative agreement through the US Department of Health and Human Services, Office of the National Coordinator for HIT, Regional Extension Center program, with the goal to support 1,000 additional providers in adoption and meaningful use of EHR systems by 2012. Most recently, DCPCA began development of a Personal Health Record (PHR) system that will utilize the DC RHIO platform for information exchange to realize the full implementation of an HIT-rich ecosystem in the District ‘ not only giving patients access to their health information in a secure, portable web-based format, but also providing a conduit for capturing observations of daily living
relevant to their chronic conditions (i.e. blood pressure readings, weight gain, etc.), and transmitting this information regularly to their health care providers. As DC's health care environment becomes increasingly automated, and information exchange widespread, broadband access will be critical to ensure patients can use HIT tools for enhanced self-care and self-management of disease, in coordination with their primary care providers. For this project, chronic disease patients at each DC CHC will be evaluated by 100 Community Health Workers (CHWs), trained in chronic disease care, utilization of HIT tools, and adult education methods. CHWs will identify broadband access points for these patients, either through computer centers available in their communities, or through household broadband subscriptions and related equipment provided to patients most in need. They will then train these patients and their families in use of the PHR system, as well as general computer skills, internet use, and basic online research skills to find additional health-related information and educational tools. CHWs will also conduct regular follow-up home visits with patients, ensuring retention of skills and continued use of broadband technology. CHW interaction with the community at large, through community events, provision of educational materials, and participation in a city-wide awareness campaign, will also have a positive impact on overall digital literacy and broadband awareness to stimulate further demand within underserved areas of DC. Our approach is innovative because our strategy encourages members of an underserved community to develop technological literacy skills for the specific purpose of health self-management, tapping existing motivation in individuals with chronic disease to maintain their health as we provide tools to both support their care and access the internet for a variety of purposes. In addition to delivering broadband access and equipment to vulnerable populations, our project provides education and training, as well as community- and home-based support and increased awareness of the value offered by broadband-based technologies for improving health outcomes. The digital literacy attained by patients' families and the training provided by CHWs will create a ripple effect that ensures a sustainable cycle of technology adoption and demand for use within the community. DCPCA is confident that we have the expertise to develop and implement this project, and to make broadband use a reality for our target population. DCPCA’s long history of work with DC’s medically underserved communities has led to the development of a restructured and expanded primary health care system through capital projects development and continuous quality improvement activities working across the sector to increase access to care. Our CHW program, which includes a training component conducted by the Community College of the District of Columbia and was recently awarded funds through the US Department of Labor, Employment and Training Administration to support the certification of 100 new CHWs in DC over the next three years, is an example of a DCPCA strategy that directly involves community members in the primary health care system as peer leaders and educators, and promotes community education and engagement in healthy behaviors. DCPCA will directly create 30 new CHW jobs through the proposed project, and will engage an additional 70 CHWs working for other health-related employers to provide supplemental training that will spread broadband education to patients already included in CHW caseloads through work with other stakeholder institutions. DCPCA’s HIT expertise and familiarity with broadband-based technologies includes experience leading six health center organizations through the due diligence, infrastructure assessment, data collection, vendor selection, configuration and set-up, implementation, training, intensive support, and systems adjustment phases required for the successful adoption of integrated EHR/Practice Management systems. DCPCA is also a newly funded Regional Extension Center, and this perspective will
add to our skills in working with providers and patients to implement innovative HIT solutions and educate low-income, vulnerable communities on the benefits of HIT. DCPCA has experience developing information sharing agreements for health information exchange, and has worked to update legal and regulatory statues to enable full linkage of hospitals, labs, diagnostic centers, and other institutions to improve patient health outcomes and coordination of care. Expansion of these efforts to help low-income patients realize the benefits of PHR systems, and an opportunity to utilize our CHW workforce for patient training and support, will not only greatly improve provider-patient communication and outcomes for chronic disease care, but will help a new group of potential internet users understand the benefits and value of broadband connectivity in their homes and communities. DCPCA estimates the overall cost of our proposed project at $10,012,500, of which $8,010,000 constitute federal funds requested in this proposal.