

## Project Narrative

### 1. Project Purpose

Healthcare, the manner in which it is delivered, and its access and availability in a rural community are the primary issues the Lamar Housing Authority [LHA] proposes to address with funding from this application. Interviews and assessments conducted with elderly residents of the LHA disclosed critical problems related to their healthcare. All residents that participated indicated they were under the care of a physician and were currently using prescription drugs. When asked for information on the drugs they used and the medical conditions their drugs remedied, most residents could not provide an answer. Most knew the drugs they took were for a condition they had, after all their doctor had prescribed them; however most were not able to identify their pills or describe what they were for. When asked about the side effects their drugs caused, most had no idea. The sad fact is that this simple review of the medical condition of our elderly residents revealed that many took pills prescribed to them by their physician, without any knowledge of the benefits or potential side effects. As one resident put it, “He is the doctor, he knows more about the pills than I do, who am I to ask questions.”

America is an aging society. According to the American Association of Retired People, [AARP] elderly over the age of 85 make up the fastest growing segment of the population. The Lamar Housing Authority administers 102 units of elderly public housing at three separate complexes and the average age of its residents is almost 76 years. Twenty-four percent of its residents are over the age of 85. In Prowers County where the City of Lamar is located, roughly 14 percent of the population is elderly. Statewide, the percentage of elderly is estimated at more than 12 percent. Further, it is estimated that the elderly population nationwide will double in the next 30 years. Elderly housing administrators, not only in Lamar, but also across the country, will tell you that their elderly residents are most fearful of losing their independence. In a recent study conducted by the American Institute on Aging, 35 percent of the respondents said they would rather die than be placed in a nursing home. Yet in Prowers County and across the State of Colorado and the nation, nursing home beds are filled to capacity. Additional studies conducted by the U. S. Department of Health and Human Services [HHS] suggest that, while most people currently living in nursing homes were appropriately placed, a significant number were not. The report goes on to say that many people currently living in nursing homes could easily have avoided placement if appropriate, preventative measures had been taken. HHS studies suggest that anywhere from 10 to 20 percent of the people currently living in nursing homes in this country could have avoided placement if just minimal, basic services were available in their communities. Nationwide the greatest expense to states is long-term care. An overwhelming percentage of Medicaid funds are spent annually to provide extensive care in nursing homes for a very small percentage of the population. Nursing home costs are estimated at \$42,000 annually for Medicaid eligible residents. According to most healthcare professionals we spoke with, the primary reasons that most people enter nursing homes is because they either do not take the medications prescribed to them or they misuse them. The goal of this program is to delay or eliminate inappropriate placement of elderly in nursing homes by introducing advanced technology, conducting training, and promoting a concept that empowers the elderly to take control of their healthcare needs through access to information.

The plan, proposed in this application, is an alternative, common sense approach that will use advanced technology in order to provide elderly residents of Lamar with the ability to communicate directly with local doctors, healthcare professionals, pharmacists, nurses, community services, and faculty at Lamar Community College [LCC]. The plan calls for elderly residents to have access to computer terminals located at their residence, which will allow them to obtain information and services 24 hours a day. In addition, educational and training programs will be offered over the computer network to elderly residents. They will be provided with the opportunity to take part in distance-learning programs offered by LCC or on-site programming facilitated by LCC faculty. Specific training will be related to healthcare topics and the use of the computer. LCC had developed and tested numerous life-long learning educational programs that are offered to adults throughout the county. They have developed and tested these programs and have agreed to make them available as part of this project. Additionally, it is proposed that six LHA residents will receive professional training from LCC on the use of computers and the system. These residents have agreed to serve as mentors offering support for elderly, using the computer system.

Focusing exclusively on elderly residents in Lamar, the following realistic, measurable outcomes are proposed: (1) A non-traditional alternative program will be established that provides opportunities for elderly to access information related to healthcare, education and support services in their community and across the country; (2) Pre- and post-testing will be conducted to measure the effectiveness of the educational services provided by LCC and other project partners; (3) Usage of the computer equipment will be closely monitored and participant levels measured regularly; (4) Individual portfolios will be established, maintained and evaluated regularly to determine if participants successfully obtained information via the system; (5) An enhanced lifestyle by residents will be measured through participation of residents in health and wellness clinics; (6) Monitoring will be conducted by project staff to determine the number of visits by nurses and other healthcare professionals to residents' homes; (7) The number of hospital and emergency room visits by residents will be measured over a two-year period to determine if the program had an impact on reducing resident dependence on services; and (8) A link will be established between people admitted to nursing homes and those of the same age and health who were not; that link will provide evidence that the project either did or did not have an impact on the rate of institutionalization.

## **2. Innovation**

The concept of linking medical services and educational opportunities to the elderly through the use of advanced technology is a very innovative concept for a rural community such as Lamar. The project proposes bringing together a diverse group of partners from both the public and private sectors. They include; (1) The Lamar Housing Authority, which is the largest housing provider in the region. LHA will serve as the lead agency; each of its three elderly housing complexes will host a computer lab and will serve as the point of delivery for programs and services outlined in this application; (2) Colorado Mobile Inet, one of the region's largest Internet service providers, has committed extensive resources in the form of direct service, space, personnel, support, maintenance, and regular updates. All equipment proposed in this application will be wireless and will be purchased from Colorado Mobile Inet; (3) The Lamar Community College, which has

designed and delivered adult educational programs in the community since 1931, has agreed to provide education and training, as well as extensive support in the form of curriculum development, use of space, coordination, supervision, and the development of a student internship program; (4) High Plains Health Care Clinic has agreed to provide health maintenance and preventative programs and services that will further advance the concept of empowering elderly to take charge of their health needs through access to information and related services; and (5) PMC Home Health Care has agreed to provide monthly wellness clinics at each housing site.

In developing this project, considerable research was conducted on successful models previously funded through TIIAP that are under development in rural communities. As an example, we used the Regional Medical Center Program located in Lubec, Maine. Like Lubec, our plan calls for the use of advanced technology. We propose to provide opportunities for elderly residents to take control of their healthcare needs and concerns by empowering them in a non-threatening manner. The impact will be lower costs associated with regular healthcare and the elimination of the anxiety many elderly feel when dealing with disease, chronic health conditions, drugs or other health-related matters. As a result of implementing this program, it is anticipated that: There will be a reduction: (1) in the number of visits by local nurses to the homes of elderly residents; (2) in the number of visits to the emergency room; and (3) in the number of hospital admissions for treatments that could have been avoided. Additionally, this project will allow elderly to avoid placement in nursing homes which will have the effect of reducing the overall costs of long-term care; while at the same time allowing elderly resident to live out their lives in dignity. An extensive review was also conducted of the Dakota Tele-Medicine System in Bismarck, North Dakota, which was also designed to serve people who resided in rural communities.

### **3. Diffusion Potential**

The proposed project is easily replicated in any of the over 2400 public and private housing organizations that make up the national network that provides residence to the country's most disadvantaged individuals, families, and the elderly. As a sub-part of this project, the Lamar Housing Authority proposes the development of its own home page that may be accessed by anyone in the country with an Internet connection. The home page will allow LHA to disseminate information about the program nationwide, but more importantly, LHA's home page will give low-income disadvantaged families, individuals, and the elderly living in Southeast Colorado the opportunity to access additional information on the availability of housing and services provided not only by LHA but other housing and service providers in the state and region.

Aging in America is a very complex problem, one that requires the development of creative programs and services that will slow down the medical decline of elderly and allow them to delay or even avoid nursing home placement. This project will not solve the aging problem this country faces, but is a common sense approach that empowers people to take control of their own destiny. There is not a region in the country not feeling the impact of the aging boom. As our political leaders in Washington debate the viability of the country's national entitlement programs, community leaders in cities and towns, just like Lamar, are trying to figure out ways to keep their elderly citizens independent and out of nursing homes. What they are attempting to do is not only humane, but is also cost-effective and saves

taxpayer dollars.

Will elderly use the system once it is established? This is worth mentioning because that issue was raised on more than one occasion in discussions prior to developing the plan. It is our position that we should not just assume that the elderly, because of their age and infirmity, will not be able or willing to accept or use the new technology. We believe that technology must be made available to elderly in a non-threatening manner that empowers them to learn and experience a new world of ideas and information. The project we propose is one small piece of the puzzle that will go a long way in helping small communities and large cities solve the problems associated with an aging society. Our plan is a simple concept that will gain in popularity as it is developed and further enhanced. This concept is part of a much bigger plan in which we visualize opportunities that will allow elderly to undergo a full medical review without ever leaving their apartments. The day will come when advanced technology allows us to monitor many of the health-related problems the elderly experience without the need to travel to the hospital or a doctor's office.

The Lamar Housing Authority is a member of the National Association of Housing and Redevelopment Officials [NAHRO]. We propose to present this project as a "Best Practice" in NAHRO's national competition. If selected, the project will receive national acclaim and will be written up in a national journal which is distributed nationwide by NAHRO. The project will also be spotlighted at NAHRO's national conference held annually in Washington, DC. Additionally, LHA is affiliated with Colorado's statewide housing consortium administered by Colorado Housing Finance Authority, which publishes a quarterly newsletter that highlights innovative housing and supportive service programs. We propose to submit information about the project for publication in a future issue. Additionally, we propose to publish and make available the results of the evaluation once they become available. Finally, the project and its evaluation results will be posted on LHA's homepage for review and comment.

#### **4. Project Feasibility**

Advanced telecommunications provides unlimited potential for the dissemination of information on a variety of subjects to people of all generations. Our request includes the purchase of 18 computers, six each for three labs that will be set up in elderly housing complexes in the city. All computers will be inter-connected, using a wireless network system for immediate 256k Internet access. Network cards and computer configuration will be installed on all purchased computers, as well as six existing computers located in the LHA administrative offices. Antennas, towers, MAT boxes, and wireless cards will be provided by Colorado Mobile Inet who will also provide support and maintenance to the system. Email addresses for each of the 110 residents will be made available at no cost to the residents. The system will operate effectively with other systems, including Lamar Community College, which uses a web-based site on the Asynchronous Learning Network to deliver educational programs and training seminars. Existing multimedia technology software in use at the college also integrates with our system and will be used to deliver educational programs outlined in the application. Lamar Community College also houses a computer lab that will, on occasion, be used for programs that occur on campus. Lamar Housing Authority has dedicated space within the community centers of its three elderly housing complexes. Upgrades to the current electrical systems will include new wiring to accommodate

computers, printers, and other associated equipment. The existing ventilation systems in each of the community rooms are being evaluated and renovations will be undertaken by LHA if they prove inadequate. It should be noted that while Internet technology currently exists in the City of Lamar, a survey of LHA's resident population revealed that only one of its 110 residents owned a computer and had access to the Internet.

Prior to selecting a wireless system, LHA staff conducted a review of the efficiency and cost-effectiveness of non-wireless systems. It was determined that wireless systems were less costly and were more efficient in terms of operation for a remote, rural community. Additionally, it was determined that wireless systems are much easier and less expensive to maintain than conventional systems. Colorado Mobile Inet will assume responsibility for all maintenance to the systems and will assist in the development of ongoing upgrades.

This project is merely Phase One of a ten-year plan, which includes linking all housing agencies located in Colorado's southeastern region. Part of the plan involves eventually developing a clearinghouse of community services, programs, available affordable housing, applications, financial assistance, and homeownership opportunities that can be accessed over the Internet by other housing providers or customers. As stated previously, we envision the day when advanced technology will allow our residents to be monitored 24 hours a day, so that in the event they fall or experience a medical problem, help will respond immediately. We expect that within five years, technology will be available so that residents will regularly have their blood pressures monitored, their blood sugar checked, and medication reminders delivered to them, without ever having to leave their homes.

The Lamar Housing Authority has the capacity to undertake the development of this project. The United States Department of Housing and Urban Development has designated it as a High Performer, based on the scores it has achieved over the past three years on its Public Housing Assessment review. LHA has consistently received scores of 100 percent, making it eligible for national recognition and less oversight by HUD officials. See pages 24-30 in the appendices. LHA is a small, but extremely active public housing authority in the region. Lisa Scranton, its Executive Director, has been employed by the agency for more than ten years, initially in its financial management department. Theresa Gomez, a permanent member of the staff, has been designated to assist the TOP Project Director. Ms. Gomez came to the agency through the Welfare-to-Work Program and has advanced through the ranks through hard work and dedication. The Project Director will be a new permanent employee. The Project Director's job description can be found on page 34 in the appendices.

Our partners in the program are among the high profile and active members in the community; they include Colorado Mobile Inet, one of the largest Internet service providers in the region. It is a division of Colorado Mobile, which has conducted business in the City of Lamar for more than 20 years. Bill Broyles, President of Colorado Mobile, is a life-long resident of Lamar and is deeply committed to providing cost-effective, efficient wireless Internet services. Colorado Mobile has maintained an outstanding reputation for its service to customers. Lamar Community College began providing educational and training programs in Prowers County in 1931. It is the primary educational institute in the county and has established an outstanding reputation for its programs that meet the needs of adult

populations. Dan Minor, Director of Vocational Services, has committed services and staff as well as education and training programs that will benefit the population we propose to serve. High Plains Healthcare Clinic and PMC Home Health Care have been active participants providing for the healthcare needs of Lamar's elderly population for years. Both have exceptional healthcare professionals serving as members of their respective staffs.

The project proposes a budget of \$413,048 over a two-year timeframe. The request represents \$201,611 in federal funding and \$211,437 in local matching funds. The Lamar Housing Authority will provide matching funds in the amount of \$113,330, with the remainder coming from our partners. We propose to implement the project in stages, first by hiring a Project Director. It is expected that it will take between three and six months to conduct a search, hire a director, purchase equipment, establish the labs, and develop a schedule of activities. A timeline has been provided on page 23 of the appendices.

## **5. Community Involvement**

This project evolved initially out of discussions between community leaders interested in developing an advanced technology system that would enhance the quality of life of Lamar's elderly while at the same time reducing the dependence on emergency medical services and reducing costs associated with nursing home placement. Additional discussions occurred on a region-wide basis and much thought was initially given to the development of a project that linked eight different housing authorities together with local educational facilities and regional hospitals. However, it was felt that a project of this size exceeded our capacity and was far too complex to undertake at this time. Those participating agreed that a smaller project made more sense, one that would allow a local group to initiate its development and iron out any problems before it was expanded to a larger group of partners. It was finally agreed upon that the Lamar Housing Authority would serve as the lead agency and administer financial management of the project. A letter which outlines LHA's commitment to the project can be found on page 10 of the appendices. Additional partners in the project include Colorado Mobile Inet, Lamar Community College, High Plains Health Care Clinic and PMC Home Health Care. Letters of commitment that detail the respective roles of our partners in the project can be found on pages 16-22 in the appendices. The commitment letters discuss what benefits each partner expects to receive and what specific contributions each partner will make to the project in the form of financial support, equipment, personnel, and other resources.

It is important to note that the Mayor's Office participated in the development of this application and a letter of support from the Mayor can be found on page 14 of the appendices. The Prowers County Commissioners' Office was also apprised of our efforts and they provided a letter of support in which they discuss the high cost of long-term care and the need to develop alternatives that will save taxpayer dollars and enhance the quality of life of elderly by allowing them to remain in their homes. Their letter can be found on page 15 of the appendices. Most importantly, we met regularly with members of our resident population. We did extensive surveying and conducted interviews in order to determine how great the need is, as well as willingness to participate, in the event the project was funded. As noted earlier, only one resident of the 110 surveyed actually owned a computer. A very high percentage of

our resident population expressed a desire to participate and learn how to use computers. However, most expressed concern over the level of skill required, which is the reason we included a remedial program that familiarizes people with basic use of the equipment. More extensive courses will also be made available that provide far greater detail and information about computers, the Internet and word processing. End users will range in age from 52 to 95 and will have access to the computers located in community rooms at their housing complex 24 hours a day, seven days a week. Colorado Mobile Inet will provide ongoing technical support to the project through its Help Desk. Users will be provided with information and access numbers that they can use to obtain help with problems they encounter. A letter of certification verifying resident involvement in the project can be found on page 12 of the appendices. Additionally, a letter of certification is included on page 13 of the appendices that was signed by six residents who have agreed to participate as mentors assisting in the development and operation of the computer labs. In signing the certification, the residents agreed to attend training sessions provided by Lamar Community College, which will allow them to supervise in the computer lab and provide support to residents using the computers. Finally, it should be noted that a core group comprised of people who were instrumental in the development of this project has agreed to serve on an Advisory Committee assisting in the project's ongoing development, by providing oversight, direction, and support.

## **6. Evaluation**

This application proposes the introduction of advanced technology to provide non-traditional education, training, access to information, and extensive medical prevention activities delivered to low-income elderly residents of public housing. We propose the use of computer networks by elderly who will use the equipment to access information on medications, disease, and chronic health conditions. Our proposal empowers elderly to take control of their lives through their participation in educational and training programs that will enhance their skill levels and allow them to use computer equipment. An independent Evaluator will be selected to review all activities of the program including: (1) LHA's ability to implement new technology; (2) Its ability to market the program beyond its current partnership arrangements; (3) The program's effect on people enrolled; and (4) Participants' success rate in obtaining information beneficial to their individual healthcare plan.

The Evaluator will use a multi-tiered approach to document project results. *First*, the system will have to be established before elderly can access services; therefore, the Evaluator will use information provided in this application in order to document the following; (a) The length of time it took to implement the system; (b) Changes that occurred in the implementation process; (c) Budget; and (d) Initial impact on staff, college faculty, and residents. Documentation will be developed through face-to-face meetings conducted once a month with program staff by the Evaluator. The Evaluator will design reporting forms for staff to use in order to document activities. *Second*, the Evaluator will survey and conduct face-to-face interviews with people receiving education and/or training via the system. Documented results will be arrived at by using pre- and post-assessments of all participants, including an examination of; (a) The number of people served; (b) Their performance; (c) Attrition; and, (d) Additional and continued enrollment. The Evaluator will seek to determine the effectiveness of the project by analyzing and measuring outcomes of program participants at designated times during implementation. The Evaluator will review all technology to determine user-friendliness and if the project successfully

attracted elderly residents. Information obtained by the Evaluator will be disseminated to project staff at monthly meetings; adjustments in the program will be made based on information provided. *Third*, the Evaluator will collect information from High Plains Health Clinic and PMC Health Care on the level of participation by residents in health maintenance clinics and wellness clinics. Through face-to-face interviews with the Project Director and LCC faculty, the Evaluator will determine if program participants improved their educational abilities enough to allow them use computer equipment effectively to access information to improve their health. *Fourth*, the Evaluator will communicate directly with an Advisory Committee comprised of representatives of the community, program participants, project staff and college faculty. The Advisory Committee will assist project staff, develop program priorities, and meeting monthly to assess activities and program progress.

The Evaluator will provide an interim report documenting the program's progress to LHA staff, partnering organizations and the U. S. Department of Commerce following the first year of operation. A final report will be published following completion of the second year.

Jay Lane Associates, a research and development firm specializing in technical support, evaluation and community economic development services to cities, towns and counties assisted in the development of this application. Jay Lane Associates reviewed the project and offered recommendations for inclusion in the application. Jay Lane Associate's submitted a letter of interest, located on page 36 of the appendices, outlining an approach to undertaking the evaluation process.