ACE Community-Based Program to Increase Health Knowledge, Change Attitudes, and the Delivery Process of Medical Care by Providing Universally Accessible Healthcare Equipment for Those with Physical Disabilities.

By

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ABSTRACT

Individuals with disabilities make up one of the most substantial healthcare consumer groups in the United States, yet people with disabilities experience a higher prevalence of secondary conditions and make use of preventive services at lower rates than the general population (National Council on Disability, 2009). There is evidence of health disparities and underutilization of services which result from an unavailability of universally accessible examination tables, scales, and diagnostic equipment in primary care offices (Kroll, Jones, Kehn, & Neri, 2006). Currently, the issue of substandard delivery of preventative and primary care services due to in-office equipment barriers is a relatively hidden phenomenon to anyone who has not directly experienced or witnessed these barriers through direct exposure. The great need for universally accessible healthcare equipment has an effect on overall community wellness. In response, the ACE (Accessible Care Equipment) program plan has been developed to provide a community-based "bottom-up" opportunity to create widespread awareness and tools for change to bridge the gap to this previously unrecognized health care inadequacy. The ACE program seeks to create a culture of thoughtful disability inclusion and consideration within the healthcare service settings in California's San Luis Obispo County. The ACE program allows for an alternative approach towards mainstreaming. By leveraging community and medical advisory support, the push for a requirement to afford widespread adoption of universally accessible medical and diagnostic equipment will be seen as a social responsibility creating a sense of accountability that assures that high-quality medical care is readily available to all citizens. This plan provides an essential framework to jumpstart reforms which are necessary to improve quality and access for individuals with physical disabilities in their primary and preventive health care service settings.
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INTRODUCTION AND BACKGROUND

During an information-gathering personal interview with a local graduate student who has quadriplegia, on April 30, 2014, D. Schirmer expressed that: Worries about facing inaccessibility out around town are relatively few and far between, I do not worry about going to the movies, eating at restaurants, and I have found that there are even wheelchair adapted rides at theme parks. Counterintuitively, it is in the healthcare setting that I often feel the most limited by my disability, as it is obvious to me that I do not receive complete and thorough care due to my paralysis. (Personal communication)

Taking this perspective into account, a change is obviously needed in how healthcare services approach accessibility. According to the American’s with Disabilities Act (ADA), disability can be defined as limitation in an individual’s physical, mental, or emotional functioning problems and the individual's ability to participate in the daily living activity requirements which enable a person to be integrated within the social world (Americans with Disability Act of 1990). There are more than 6.8 million Americans that have disabilities who live in communities that require the use of assistive devices to help with their mobility. This group is comprised of 1.7 million wheelchair and scooter users and over 6.1 million individuals who rely on other kinds of mobility equipment, such as walkers, crutches, or canes (Kaye, King, & LaPlante, 2000). For individuals with physical disabilities an inaccessible environment, attitudes of discrimination, and stigmatizing community norms often present more of a barrier to health, wellness, and quality of life than their disabling condition (Office of the Surgeon General, 2005).

In 2005, the Surgeon General issued a "Call to Action to Improve the Health and Wellness of Persons with Disabilities" to awaken the public's recognition that individuals with disabilities are capable of leading productive, healthy, and long lives. Specialized enhancement
of healthcare professionals’ knowledge, diagnostic tools, and attitudinal adjustments were stated as necessities for the promotion of healthy lifestyles and independence for individuals with disabilities (Office of the Surgeon General, 2005). If access is defined as the ease at which health care is obtained, then individuals who face obstacles produced by the lack of provisions for usable medical equipment make necessary health care unacceptably inaccessible. Providing thoughtfully therapeutic environments should be a core value in healthcare settings.

As things stand, non-accessibility results in many individuals with disabilities choosing to not seek or employ essential preventative services necessary for proper health maintenance. Focus group participants with disabilities noted that often preventative procedures that require transfers from wheelchairs to diagnostic equipment or exam tables were less frequently suggested and carried out (Kroll et al., 2006). These researchers found that one reason for non-utilization is that of individuals with disabilities feeling embarrassed, fearful, or frustrated when there is a need to obtain additional assistance in order to get onto high examination tables or to correctly access non-height adjustable diagnostic equipment and scales. Allowing this kind of assistance requires a surrendering of independence as well as the need for a sense of trust in staff members who are often not properly trained or unwilling to transfer and assist patients with disabilities in this manner (National Council on Disability, 2009). Alternatively, equipment inaccessibility limitations have a tendency to cause providers to make the choice to conduct examinations or diagnostic tests while patients are seated in their wheelchairs, to forgo pieces of or omit tests altogether, or to decide to not make recommendations for procedures for individuals with disabilities that would otherwise be commonplace (North Carolina Council on Disability, 2007). In this light, having standardized, readily available, and easily accessible healthcare equipment would greatly increase safety, while providing a more welcoming and culturally
competent health care service environment. Not only would this change encourage more individuals with disabilities to confidently seek out service, but it would simultaneously act as a tool to improve provider’s capabilities to maintain more thorough and satisfactory care.

Current Political Environment

The Americans with Disability Act (1990) states that: Professional offices of healthcare providers fall into the category of public accommodations that are required to ensure that individuals with disabilities have an equal opportunity to participate in and benefit from all of the goods and services provided by such entities. (Title II)

Originally touted as a "Declaration of Independence" for individuals with disabilities, the ADA has led to widespread access improvements in physical building codes and permanent spaces including healthcare settings. This has allowed for great advancements in the ability for individuals with disabilities to navigate the entrances, internal doorways, and layout space of medical offices and clinics. Unfortunately, the ADA does not monitor healthcare sites or currently have specific requirements for the use of in-office universally accessible medical equipment such as height adjustable examination tables, mammography and diagnostic equipment, and wheelchair accessible scales (Kirschner, Breslin, & Iezzoni, 2007). The widespread use of non-adaptable traditional examination and diagnostic equipment act as an enormous hurdle for individuals with disabilities in the United States in receiving high quality primary and preventive care services.

According to the tenants of the ADA, the failure to provide auxiliary aids or services necessary to ensure that there is no exclusion, service denial, segregation or treatment provided or received differently than other individuals should be an obvious violation (Americans with Disability Act of 1990). Unfortunately, the US Department of Justice and the Office for Civil
Rights of the US Department of Health and Human Services who are charged with enforcing the ADA's Section 504 in healthcare settings have shown little to no impact on the delivery of health care services to individuals with disabilities. Without thorough enforcement, disability rights laws have proven to be ineffective against challenging the discriminatory health care experiences that individuals with disabilities repeatedly report (National Council on Disability, 2009). With a lack of oversight and regulations to enforce standardization, increased need for an alternative approach to ensuring that individuals with disabilities are not excluded from equal and appropriately competent health care services has become all the more dire.

Public Health Relevance

The problem of major healthcare disparities for individuals with disabilities has been recognized as a large-scale Public Health problem. The Healthy People 2010 plan included a high-profile objective that recognized healthcare inequalities of individuals with disabilities need to be eliminated. The 2010 agenda expressed concern that a lack of emphasis on prevention of disease and health care promotion for individuals with disabilities played a role in higher rates observed in the occurrence of "medical, social, emotional, family, and community problems" (CDC, 2000). The Healthy People 2020 plan continues this crusade by highlighting a need for reduction in the proportion of individuals with disabilities who face obstacles in receiving recommended preventive care and primary services due to situation specific barriers (CDC, 2010). As it currently stands, equipment that has been engineered to meet the needs for use of individuals of all abilities is readily available to healthcare providers. In order to comply with the public health objective put forth to increase access to preventive and primary care services for people with disabilities, it is imperative that a change be made which demands that barrier free medical examination and diagnostic equipment become the standard. Utilizing the proper tools
will make sure that healthcare is properly delivered so that minor issues can be detected and treated before turning into possibly life-threatening health problems.

Like every American citizen, people with disabilities have the right to high-quality primary care and health promoting disease prevention services as the risks for developing chronic conditions are the same, if not substantially higher, for these individuals (CDC, 2000). A recent study of California clinics found that only 3.6% of responding sites owned a wheelchair accessible weight scale, and only 8.4% utilized a height adjustable examination table (Mudrick, Breslin, Liang, & Yee, 2012). These equipment inadequacies pose serious health threats as individuals with disabilities show substantially lower levels of utilization of preventative care services. In a qualitative inquiry, individuals with physical disabilities noted a particular concern that they had not been weighed for multiple years due to unavailability of wheelchair accessible scales. The lack of concern of this fact by physicians was shown to be in stark contrast to the notion of weight management and objective to keep obesity at bay (Kroll et al., 2006). In fact, one third of adults noted to have complex activity limitations were considered obese by the National Center of Health Statistics in 2008 (Altman & Bernstein, 2008). Concurrently, individuals with disabilities have a 400% higher risk of developing type II diabetes than the general population, a condition for which weight management can have substantial benefits (Curtis & Heaphy, 2009). These facts make it hard to overlook how important the simple need for an accessible wheelchair scale becomes for individuals with disabilities and their medical providers in proper management and prevention of negative health conditions.

Beyond scales, non-height adjustable examination tables and diagnostic equipment pose serious risks for incomplete diagnostic examination and medical treatment for individuals with disabilities. Without required fully accessible examination capabilities, women with disabilities
face serious complications from underutilization of preventative services that ensure their reproductive, sexuality, and childbearing service needs are met (Schopp et al, 2002). In 2008, only 65% of females with complex activity limitations reported receiving a Pap test in the last three years, compared with 82% of women without disabilities. While 74% of women aged 50 to 69 without disabilities received annual mammography exams, as opposed to only 51% of women with physical restrictions in their ability to perform certain instrumental activities of daily living (Altman & Bernstein, 2008). When general healthcare needs are ignored by healthcare providers this creates lack of confidence that basic human rights are being cared for, and can lead to further distrust in and avoidance of healthcare services overall (Panko et al, 2004). Without fostering an innovative strategy to ensure safer and more disability specific culturally competent care, we run the risk of alienating a vulnerable population.

A Henry J Kaiser Family Foundation survey found that around 40% of individuals believe that the healthcare system displays unfair treatment to the individuals with physical disabilities, and an overwhelming majority of survey participants indicated support for healthcare reforms that would benefit individuals with disabilities (Panko et al, 2004). With this notion, we are faced with the responsibility of finding mechanisms which will provide for greater public consciousness in order to inspire community support for people with disabilities. The potential to spur community supported change will follow public awareness that recognizes that barriers faced by individuals with disabilities challenge their overall health, and that solutions are available to correct these inadequacies. Instead of doing nothing about this dysfunctional piece of health care, the ACE program will capitalize on community interest to create a bottom-up consciousness that demands compassion and action from local providers to make important equipment adaptations right away.
PROGRAM OVERVIEW

ACE (Accessible Care Equipment) is a normative framework plan spurred through community-based actions to improve accessibility for individuals with physical disabilities. This is accomplished by educating and encouraging the adoption of standardized medical diagnosis equipment in order to better allow for utilization of preventive care in individuals with physical disabilities.

Vision Statement: Accommodating universal access to quality healthcare and lifestyles in San Luis Obispo County, CA

Mission Statement: To make universally accessible medical equipment the standard in all healthcare service settings throughout San Luis Obispo County in order to provide optimal healthcare environments for the utilization of primary and preventative care for those with mobility restricting physical disabilities

Acceptability to Providers and Recipients

The architectural notion that form impacts function in environments rings a noteworthy truth for persons with disabilities. Physical barriers faced when seeking healthcare shine a light on inequality and contribute to feelings of stigmatization, disenfranchisement, and demobilization in a patient with a disability (Kirschner, Breslin, & Lezzoni, 2007). According to Story (1998), "Universal Design is the concept of engineering all products and the built environment to be aesthetic and usable to the greatest extent possible by everyone regardless of their age, ability, or status in life." Selecting universally accessible healthcare examination and diagnostic equipment serves to benefit many individuals beyond just consumers with physical disabilities. Feedback from physicians who have chosen to make the change to utilize universally adaptive equipment, have reported heightened overall examination performance ability. These
human centered designs keep all potential users in mind, meeting the needs of individuals with disabilities while also simultaneously benefiting individuals of different heights, strengths, health statuses, ages, and reducing hazards for healthcare professionals (Kershner et al., 2007). With increased awareness and full understanding of the quality improvement potential these adaptations will make in the delivery of health care; patients, health care workers, and the community at large should be welcoming of this opportunity for advancement.

Technical Feasibility

Universally accessible healthcare equipment adoption will allow for healthcare services that are usable to the widest extent possible. In meeting the needs of people with disabilities, healthcare providers will contribute enhanced facilities to all of their patients. The potential for fully adaptable equipment to positively affect the healthcare experiences of patients without disabilities, as well as increasing safety and comprehensiveness of examinations for healthcare providers should not go unrecognized in ACE efforts. Traditional fixed height examination tables range from 32 to 36 inches from the ground, this height is often a struggle for able-bodied individuals, and is generally too high for individuals with physical disabilities to access. Having height adjustability allows for safer transfers, increased stability, and a wide range of benefits to patients who may be at a weakened state due to illness, those of short stature, children, the elderly, and women who are pregnant (Americans with Disabilities Act, 2010). The cost of power enabled height adjustable examination tables with stability rails and universally accessible features starts at around $5000 (Google Marketplace, 2014). These exams tables do not take up any extra space, and serve to greatly improve examination quality potential and safety for individuals with disabilities.
Given that patient weight is an essential tool in diagnosis and management of health, it is important for all medical offices to provide a scale that allows for wheelchair and other mobility device access. Wheelchair accessible scale prices begin at around $800, are generally portable, and serve to provide the weights of both standing and seated patients. The cost of advanced diagnostic equipment such as machines used for mammography is substantial, but when new equipment is purchased height adjustable mechanisms are readily available options.

Technical Feasibility Diagrams

In 2010, the ADA provided guidance on universally adaptive equipment, which is seen below:

Adjustable Height Exam Table

1. Removable/adjustable support rails with continuous gripping surfaces
2. 30" x 48" minimum clear floor space adjacent to exam table and adjoining accessible route
3. Exams surface lowers to 17" to 19" inches above the floor
4. 36" wide minimum accessible route.

Figure 1: Adjustable Height Examination Table. This figure illustrates the components of an adjustable height exam table. (Americans with Disabilities Act, 2010)
Wheelchair Accessible Scales

1. Sloped surface provides ease of access
2. Edge protection at drop-off
3. Large platform accommodating various wheelchair sizes
4. Maneuvering space must be provided for getting on and off scale

Figure 2: Wheelchair Accessible Scale. This figure illustrates the components involved with a wheelchair accessible scale. (Americans with Disabilities Act, 2010)

Mammography Equipment

1. Pivoting unit adjusts to multiple angles and heights for seated patients
2. Position equipment to allow both front and side approaches
3. Clearance is needed beneath the camera unit and plate to allow for wheelchairs and other mobility devices

Figure 3: Universally Accessible Mammography Equipment. This diagram illustrates the components of Universally Accessible Mammography Equipment (Americans with Disabilities Act, 2010).
Stakeholders and Other Factors

In our quest to encourage widespread adoption of universally accessible equipment throughout California’s San Luis Obispo County, important partnerships and stakeholder participation is necessary for accomplishing program goals. Ample opportunities with ACE will be available for community members, civil society, local advocacy groups, and grassroots level projects and services. These individuals will have the opportunity to take our program message and accelerate the progress of equipment standardization by encouraging and expecting adaptations to be seen in their own sources of medical care and beyond. Concerned community members have the understanding necessary to adopt positive personal attitudes and practices visible throughout our county that promote inclusion for persons with disabilities. Community leaders, medical advisory boards, local disability awareness groups, and media entities will foster innovative approaches to disability mainstreaming and leverage the comparative advantages they play in the business sector. A unique partnership will be created with the distinguished engineering program at Cal Poly San Luis Obispo to establish a student innovation contest for new ideas in universal adaptations for medical equipment. This contest will serve to raise awareness with a young creative community, as well as generating opportunities for fundraising through sponsorships.

By creating a culture of disability inclusion throughout San Luis Obispo County, we will be able to best engage our intended users in the primary and preventive care services field, as well as individuals in the county who have physical disabilities. Through active and effective participation of people with disabilities and representatives from the medical community as ACE stewards, we will increase our visibility, legitimacy, and their cooperation will be instrumental in engaging the community in bringing about substantial change.
Financial Incentive

A major contributor to the success of the ACE program will be San Luis Obispo County’s Access for All (AFA) advocacy coalition. This highly diverse team of individually unique perspectives represents many facets of civil service, as well as a wide spectrum of disability awareness. AFA is an all-volunteer group of highly committed individuals seeking to promote accessibility through advocacy efforts, community education, and outreach. The AFA was selected as a beneficiary of the Central Coast Wine Classic Grant due in response to their proposal regarding increasing the accessibility of local medical care services. The ACE program was born and will be initially funded from this organizational objective. To best utilize time and funds, the AFA healthcare access committee will be charged with creating and distributing ACE formative community assessment surveys and as well as coalition recruitment duties. In addition to this initial funding source, the ACE program will poise itself to maintain readiness for and continuously seek out available funding opportunities for program sustainability and growth, including those available from sponsorships established through the Cal Poly engineering innovation contest.

In order to increase the likelihood that targeted medical provider adaptations will be seen as worthwhile and necessary financial investments, the ACE coalition will maintain and communicate a high level of understanding and awareness of financial incentive availability. Currently, the federal government offers both the Disabled Access credit and Barrier Removal deduction, which are both available annually to private businesses in order to offset expenses incurred in compliance with the ADA (Internal Revenue Service, 2014). In addition, the ACE program team will seek to negotiate and offer discounts through partnerships made with universally accessible equipment dealers and manufacturers.
Theory of Program Plan

The ACE program will be strongly based on a Community Organization Model (Minkler, Wallerstein, & Wilson, 1997). It is the aim of the ACE team to first help assist with community identification of the fact that current unavailability of universally accessible medical equipment is a significant barrier to care for individuals with disabilities, and to then help empower individuals to encourage change by presenting strategies that address the root of the problem simply and effectively. The Henry J Kaiser Family Foundation survey found that when not specifically mentioned, disability was seldom noted as a concern by individuals without disabilities. Instead, the issues of health care for those with disabilities only became a concern after being presented as an issue on which to voice an opinion (Panko et al., 2004). Keeping this in mind, the ACE program will rely on creating a critical consciousness that helps to maintain relevance and stimulate participation. During planning and program implementation activities, considerations will be made of the Social Learning Theory which emphasizes the existence of relationships between and individual and their environment. The theory helps to support understanding of how individual behavior modification can be highly influenced by our social environment, outside expectations, peer influence, and community norms and values. As barriers to good health are lowered or removed, changes in behavior become more likely (McLeroy, Bibleau, Strickler, & Glanz, 1988). In addition, the ACE program will maintain an overall adherence to the Ecological Perspective in order to best provide consideration for the interactions between individual, community, and societal factors (McLeroy et al., 1988). It is our aim to promote feelings of social connectedness, communitywide health care consideration, a culture of inclusion, and pride of civic engagement. San Luis Obispo County awareness and
consideration will act to reinforce individual participation in encouraging this change, as well as reinforcing sustainability.

Logic Model

Based on the assumptions that:

- Non-accessibility results in many individuals with disabilities not seeking out or obtaining important primary and preventive health care (Grabois, Nosek, & Rossi, 1999).
- For individuals with disabilities, inaccessible environments, discriminatory attitudes, inadequate governmental policies, and negative community norms can present a larger barrier to health and quality of life than their disability (North Carolina Office on Disability & Health, 2007).
- Individuals who live close to each other will come together in organization for their shared self-interest (Minkler et al., 1997).
**Figure 4: ACE (Accessible Care Equipment) Program Logic Model.**

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<tr>
<th>Resources</th>
<th>Activities</th>
<th>Outputs</th>
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<tr>
<td><strong>People:</strong></td>
<td>- Establish ACE coalition</td>
<td>- Program equipped with knowledgeable/informed community outreach educators</td>
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<td></td>
<td>- Train ACE outreach team as universally accessible medical equipment spokespeople</td>
<td>- Establish communitywide cultural disability awareness and inclusion</td>
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<td></td>
<td>- Promote community awareness of non-accessible medical equipment</td>
<td>- Increased access to quality primary and preventative services for local individuals</td>
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<td></td>
<td>- Provide presentation &amp; assistance to providers in adopting universally accessible medical equipment</td>
<td>- Individuals involved in program activities will serve as community champions</td>
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<td></td>
<td>- Partner with local community groups and engineering program to foster increased innovation in medical equipment accessibility</td>
<td>- Present unique opportunities for universally accessible equipment technology innovation</td>
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<td>- Seek grant and funding opportunities for program sustainability</td>
<td>- Ongoing financial resources for exposure, program growth, and adoption in other counties</td>
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<tr>
<td><strong>Organizational:</strong></td>
<td>- ACE outreach team</td>
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<td>- Media campaign materials</td>
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<td></td>
<td>- Local partnership resources</td>
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<td><strong>Financial:</strong></td>
<td>- AFA grant</td>
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<td>- Grants and funds raised</td>
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<th><strong>Short-Term Outcomes</strong> (0-2 years)</th>
<th><strong>Long-Term Outcomes</strong> (2-5 years)</th>
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<tr>
<td></td>
<td>- Within 3 months, establish interdisciplinary coalition of local stakeholders and individuals with disabilities</td>
<td>- By the end of year 2, complete 12 presentations and have directly contacted at least 80% of local primary care service providers</td>
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<td>- Within 6 months, 6 coalition members named outreach knowledge stewards</td>
<td>- By year 3, secure grant funding of at least $10,000</td>
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<td>- Within 1 year, outreach team fully trained as universally accessible medical equipment subject matter experts</td>
<td>- By year 4, at least 60% of County medical care sites fully trained and equipped with universally accessible equipment</td>
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<td>- By the end of year 1, press and media marketing plan developed and ready for distribution</td>
<td>- By year 5, established ongoing and follow-up training press opportunities for program expansion</td>
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<th><strong>Impact</strong> (5+ years)</th>
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<tr>
<td></td>
<td>- Medical care improvement and awareness of accessible healthcare services for individuals with disabilities in San Luis Obispo County</td>
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<td></td>
<td>- Local Health providers equipped with increased compassionate knowledge and capabilities to treat individuals with physical disabilities</td>
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<td></td>
<td>- San Luis Obispo County residents more aware of the needs of individuals with disabilities, resulting in a more aware and universally accessible community</td>
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PROGRAM IMPLEMENTATION

Formative Assessment

County Level Data: After obtaining IRB approval, short reply by mail surveys targeted toward San Luis Obispo County residents registered having a household member with a disability, and San Luis Obispo County healthcare providers will be developed and distributed. Surveys will establish initial baseline levels of universally accessible healthcare equipment availability, as well as attitudes, and perceived barriers towards adoption.

(See Appendix to view survey questionnaire)

Focus Groups: AFA coalition members will visit local chapter meetings for disability advocacy groups and local medical associations to inquire through open-ended questions about current attitudes on the need for universally accessible healthcare equipment locally.

Asset Map: Coalition will identify and reach out to community partners and organizations to understand current statuses, as well as inquiring about resources that could be offered in support of the program.

GOALS & OBJECTIVES

Goal: Improve access for individuals with physical disabilities to primary and preventative care services.

This program focuses on educating about disability related needs to San Luis Obispo County healthcare providers, as well as the community at large in order to bring about change. We are seeking to create mindfulness that individuals with physical disabilities are not receiving access to complete primary and preventive care services due to unavailability of universally accessible medical equipment in our local area. This strategy utilizes current guidelines and proposed standards brought forth by the ADA and National Access Board to properly equip
medical offices with safe transfer height adjustable examination tables, wheelchair accessible scales, and adaptable diagnostic equipment. To bring awareness and adoption of these recommendations, we will provide community outreach to introduce and reinforce the necessities of these important adaptations. Opportunities for change presented will allow for increased healthcare confidence for providers, patients with physical disabilities, and healthcare recipients throughout the county.

Short-Term Objectives (0-2 years)

1. Within 3 months, the ACE coalition will engage and establish a unique interdisciplinary team of local stakeholders and individuals with disabilities in the community.

2. Within 6 months, establish a team of 6 access knowledge stewards to lead outreach, education, and equipment coordination throughout the community.

3. Within 1 year, community outreach team will be fully trained on adaptive medical equipment standards and guidelines, equipment use procedures, purchase coordination, and applicable financial resources and tax deductions.

4. By the end of year 1, press and media marketing plan will be developed and ready for implementation and public observation.

Short-Term Strategic Program Implementation Activities:

Our initial short-term activity will be to establish the ACE program participant coalition. The coalition will draw from AFA team members as well as recruiting an additional range of interdisciplinary stakeholders from the local medical and individuals with disabilities communities. During the initial establishment meeting an opportunity will be provided to introduce and explain our program vision to improve the health care access to individuals with disabilities throughout San Luis Obispo County as well as share the results of our county
accessible medical equipment use survey. Targeted invitees will include, but are not limited to these stakeholders: San Luis Obispo County American Medical Association members, Centers for Independent Living, local health department officials, San Luis Obispo County Board of Health, local medical equipment dealers, Chamber of Commerce, local politicians, healthcare providers, and local individuals with disabilities.

Following initial recruitment meeting, a timetable for the bi-monthly meetings will be established to encourage stakeholder feedback, community engagement suggestions, related discussion, and regular updates on adaptation of the culture of disability inclusion in medical care. This coalition will be instrumental in capitalizing on unique perspectives that will need to be developed in order to charge our platform to more effectively encourage adaptation throughout the healthcare community. Having an authoritative caucus will lead to higher levels of organization, legitimacy, and will allow for more effective communication with our intended audience (Issel, 2004).

Within the first six months, six ACE members will be established as community knowledge stewards to serve in liaison roles in public awareness, as well as acting as provider contacts, educators, and equipment purchase coordination advisors. This outreach team will be split into pairs of two, with at least one of the members being an individual directly affected by disability. Two pairs will be designated as provider specific communication specialists, while the third team will specialize in public awareness activities.

Following selection, the community outreach team will obtain full training in ADA adaptive medical equipment guidelines and the Access Board's Barrier Free Initiative and their guidelines for adaptive medical equipment. Team members will also work closely with universally adapted medical equipment producers and form partnerships with local dealers to
obtain full understanding and training on individual equipment models. Strong communication pathways will be forged, so that team members are able to advise fully on purchasing procedures, available financial incentives, and tax credit and deduction opportunities.

By the end of the first year, the press and media campaign will begin development. Mixed-use marketing materials will be designed for San Luis Obispo County healthcare providers, the mailed packet will introduce the ACE program, communicate the results of the initial county adaptive equipment usage survey, as well as serve as an invitation to attend or arrange an ACE program presentation. Simultaneously, members of the public awareness outreach team will contact local newspapers, news outlets, community magazines, radio programs, local Cal Poly students, and advocacy groups to start a social marketing inspired public dialogue to create awareness about the inadequacies in primary care and prevention that are faced by individuals with physical disabilities. Our media campaign will be an opportunity to increase public awareness and visibility by introducing members of our ACE coalition who not only have disabilities, but are also healthy, vibrant, and productive members of our community. These individuals will act as stewards who are able to speak from experience that inaccessible healthcare equipment provides a barrier to their health, which can result in negative overall quality of life and participation.

With increased awareness, opportunities for concerned citizens will be abundant as they are able to accelerate the progress of equipment standardization by encouraging and expecting adaptations in their individual healthcare service environments. Heightened overall community awareness will encourage business practice adoption that promotes inclusion for individuals with disabilities and fosters a community wide cultural consciousness keen to develop innovative approaches to disability mainstreaming in the healthcare setting and beyond.
Long-Term Objectives (2-5 years)

1. By the end of year 2, complete 12 presentations and make direct contact with at least 80% of local primary care healthcare service providers in the community.

2. By year 3, apply for and secure grant funding of at least $10,000 to fund program continuation and expansion in the community.

3. By year 4, at least 60% of San Luis Obispo County primary care sources will be fully equipped, trained, and using universally accessible medical equipment.

4. Establish follow-up, ongoing awareness, and refresher training opportunities through continued mentoring and community awareness projects.

Long-Term Strategic Program Implementation Activities:

Presentations will be given at least bi-monthly and begin two months from initial physician and medical office management invitation disbursement. ACE team will utilize guest speaking roles at regularly scheduled meetings for local medical groups, area chapters of medical associations, San Luis Obispo County Board of Health, as well as offering site visits and consultations to interested medical clinics. At least 80% of countywide healthcare providers will be contacted directly by an ACE team member by the end of year 2.

In order to increase visibility and sustainability for the ACE program, grant funding will be sought and obtained of at least $10,000 in order to further sustain program activities. It is also during this time that we will have our inaugural Cal Poly University adaptive equipment engineering contest. This will provide ACE with fundraising opportunities from sponsorships, further exposure, as well as a unique opportunity to foster innovation in healthcare solutions.
from this great local resource. With leverage established from ACE program implementation, possible expansion of disability awareness campaign will be sought.

By the end of year four at least 60% of San Luis Obispo counties primary care sources will have chosen to equip themselves with at least one height adjustable examination table, have obtained a wheelchair accessible scale, and employ the use of height adjustable relevant diagnostic equipment. Each office will be fully trained on usage, and understand the importance of utilizing this equipment during all examinations of patients with disabilities. Program participant healthcare providers will be encouraged to share their stories of adaptation, and act as spokespeople among their healthcare service peers to the benefits of universally adaptive equipment.

LEADERSHIP RECOMMENDATIONS

In order to successfully implement and sustain the ACE program, ongoing evaluation is a necessity. Routine internal evaluations will allow for opportunities to explore organizational functioning and come together in program assessment. Utilizing the diverse perspectives of ACE coalition members and interested stakeholders, semi-annual "program checkups" need to be organized to provide roundtable evaluative forums. At these meetings, dissemination of program impact and progress will be presented, priorities will be renegotiated, and new utilization improvement objectives will be established. Transparency and ongoing information sharing must be welcomed as priorities throughout the year, so that necessary changes can be made in a timely manner. Recognizing both the hits and misses of ACE program implementation will provide big picture understanding to spur continuous refinement, constant program evolution, and necessary streamlining.
CONCLUSION

The ACE program has been created to vastly improve the healthcare experiences of individuals with physical disabilities in San Luis Obispo County. It has been developed as an alternative mechanism for increasing universal accessibility. The ACE program additionally counteracts a gap where federal regulation has yet to be established. In the vein of the public health role, this program has the potential to improve life and promote overall health through the informed choices of the community and each unique individual. The program will lead to increased utilization of primary and preventative healthcare services that are better prepared and that meet the needs of individuals with physical disabilities in San Luis Obispo. Healthcare providers will benefit from increased levels of confidence that they are able to contribute thorough evaluation and care to all patients. Adaptable equipment designed to be used universally will benefit each individual throughout the whole community. Success of this program presents a model for expansion to other counties to develop and sustain efforts that foster increased community compassion, advocacy, and overall quality of life for individuals with physical disabilities and their neighbors.
REFERENCES


PERMISSIONS

Permission to reproduce quote gathered during information gathering interview presented in the introduction to this plan has been granted by D. Schirmer on 6/11/2014.
# Local Disabled Individual Survey Questions

Please provide your response to this community health survey. Your name and other identifying information will not be collected. Thank you for your responses and participation in this community health survey.

## 1) Do you have a physically mobility restricting condition?
(please circle one)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

## 2) During the past 12 months, have you visited a doctor or other healthcare professional about your own health at a doctor’s office, clinic, or non-emergency room setting?
(please circle one)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

**If you answered Yes**, how many times have you visited a doctor or other healthcare professional about your own health at a doctor's office, clinic, or non-emergency room setting during the past 12 months?

<table>
<thead>
<tr>
<th>Highly Satisfied</th>
<th>Satisfied</th>
<th>Neutral</th>
<th>Dissatisfied</th>
<th>Highly Dissatisfied</th>
</tr>
</thead>
</table>

**If you answered Yes**, how satisfied were you with your visits? (please circle one)

**Please add your Comments:**

## 3) During the past 12 months, have you visited a hospital emergency room about your own health?
(please circle one)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

**If you answered Yes**, how many times have you visited a hospital emergency room about your own health during the past 12 months?

<table>
<thead>
<tr>
<th>Highly Satisfied</th>
<th>Satisfied</th>
<th>Neutral</th>
<th>Dissatisfied</th>
<th>Highly Dissatisfied</th>
</tr>
</thead>
</table>

**If you answered Yes**, how satisfied were you with your visits? (please circle one)

**Please add your Comments:**
# Local Disabled Individual Survey Questions

Please provide your response to this community health survey. Your name and other identifying information will not be collected. Thank you for your responses and participation in this community health survey.

<table>
<thead>
<tr>
<th>4)</th>
<th>Does your regular source of primary care have medical equipment (exam tables, scales, and diagnostic equipment) that is accessible to you? (please circle one)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Yes</strong></td>
</tr>
<tr>
<td></td>
<td><strong>If you answered No,</strong> what items are needed to allow you access?</td>
</tr>
<tr>
<td></td>
<td><strong>If you answered No,</strong> how does the lack of accessible medical equipment at your regular source of primary care affect your examinations?</td>
</tr>
<tr>
<td></td>
<td><strong>If you answered No,</strong> If your regular primary care provider had all of the equipment necessary to easily allow you access to thorough examinations would you visit more frequently for preventative and preemptive care? (please circle one)</td>
</tr>
<tr>
<td></td>
<td><strong>Yes</strong></td>
</tr>
<tr>
<td></td>
<td><strong>If you answered Yes,</strong> how does having accessible medical equipment affect your examinations at your regular source of primary care?</td>
</tr>
</tbody>
</table>

Please add any additional comments you wish to provide:

Thank you very much for your responses and participation in this community health survey.
**Local Area Healthcare Provider Survey Questions**

Please provide your response to this community health survey. Your name and other identifying information will not be collected. Thank you for your responses and participation in this community health survey.

<table>
<thead>
<tr>
<th>1) Do you feel your office is equipped to provide complete care to individuals with physical disabilities? (please circle one)</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>2) Does your office have accessible medical equipment for disabled individuals? (please circle one)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>If you answered Yes,</strong> please indicate the type of accessible medical equipment that you have:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Height adjustable examination table</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Wheelchair accessible scale</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Adaptable diagnostic equipment</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Other:</strong> ___________________________</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Other:</strong> ___________________________</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Other:</strong> ___________________________</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>3) Do you understand what is considered to be universally accessible medical equipment? (please circle one)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>4) What might you see as benefits of having universally accessible medical equipment?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) What might be issues related to having universally accessible medical equipment?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Would you like to learn more about universally accessible medical equipment? (please circle one)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>7) What is your level of interest in upgrading to universally accessible medical equipment? (please circle one)</td>
<td>Highly Interested</td>
<td>Moderately Interested</td>
</tr>
<tr>
<td><strong>Please add any additional comments:</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thank you very much for your responses and participation in this community health survey.