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Walkable Neighborhoods for Seniors: The Alameda County Experience

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The Walkable Neighborhoods for Seniors (WN4S) project was designed to develop and promote safe and accessible neighborhood walking routes for seniors. This article describes a case study of the efforts put forth by one local lead agency—United Seniors of Oakland and Alameda County (USOAC). To facilitate environmental and policy changes that would enable and encourage walking by older adults, USOAC implemented several strategies including organizing a local task force with broad professional representation, conducting environmental audits of selected walking routes, creating walking groups, organizing an annual healthy living festival, collaborating with public health marketing and community livability initiatives, and advocating for environmental and policy change. Evaluation processes yielded information indicating a variety of successes, challenges, and lessons learned that could be applied to similar WN4S efforts undertaken by community organizations to increase the physical activity and improve the health and independence of older adults.

Keywords: environment; physical activity; policy; seniors; walking

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The physical and mental health and physical fitness benefits of regular physical activity are well documented (U.S. Department of Health and Human Services [USDHHS], 1996). Unfortunately, more than one half of adults in the United States report not meeting the public health recommendations for physical activity with persons older than age 50 years (i.e., older adults) reporting the highest levels of insufficient physical activity (Centers for Disease Control and Prevention, 2003). For older adults who do participate in regular physical activity, walking is by a large margin the preferred activity of choice. However, older adults who remain inactive will experience accelerated losses in physical fitness, health, and function that will (a) render them more dependent on care, (b) put them at higher risk for several chronic conditions, (c) make them less likely to pursue leisure-time physical activity, and (d) increase their likelihood of consuming health care (Hooker, 2002).

The ecological model for health promotion emphasizes multiple levels of influence on individual behavior—intrapersonal, interpersonal and/or social, organizational, institutional, community, and policy (McElroy, Bibeau, Steckler, & Glanz, 1998; Stokols, Allen, & Bellingham, 1996). Expanded views of this model include aspects of environmental attributes that may play an important role in shaping health behaviors such as physical activity (Brownson, Baker, Housemann, Brennan, & Bacak, 2001). Physical environmental attributes such as traffic, distance, sidewalks, and aesthetics are examples of factors that may influence physical activity (Frank, Engelke, & Schmid, 2003; Humpel, Owen, & Leslie, 2002). Although there has been a call for the use of this multilevel approach to increase physical activity in persons across the lifespan (Doyle, Kelly-Schwartz, Schlossberg, & Stockard, 2006; Sallis & Owen, 1999), organized efforts to influence environmental and policy factors that may affect the physical activity levels of older adults are lacking (Li et al., 2005; Prohaska et al., 2006). This is regrettable because logic dictates that walkable neighborhoods can promote greater physical activity, leading to lower risk of chronic diseases, better management of chronic conditions, improved functional capacity, and fewer activity limitations, which in turn contribute to enhanced overall health and quality of life (Doyle et al., 2006; see Figure 1).

The Walkable Neighborhoods for Seniors (WN4S) project was developed to facilitate changes across multiple levels of behavioral influence, including environmental and policy levels, to enable and encourage walking by older adults. Of special interest was having a community agency familiar with delivering services and programs to older adults in the position as lead agency to oversee the project at the local level. This article describes a case study of the WN4S project efforts and experiences of the
United Seniors of Oakland and Alameda County (USOAC), a nonprofit organization whose stated mission is to favorably change the conditions that affect the lives of older adults in the East Bay region of California.

**Method**

*WN4S Project Objectives*

The primary objectives for USOAC were to

1. organize a WN4S task force to develop and implement an action plan to
   a. increase public awareness of the benefits of physical activity (primarily walking) for older adults,
   b. conduct a walkability audit in designated neighborhoods with high volumes of older adult residents,
   c. advocate for environmental and policy changes (e.g., engineering, beautification, enforcement) in designated neighborhoods to foster walking by older adults,
   d. develop a plan to sustain and expand the efforts of the WN4S task force after core funding expired.
2. increase the walking behavior of older adults in targeted neighborhoods.
3. increase the knowledge and attitudes of local policy makers regarding the impact of the environment and policy on the ability of older adults to walk in their neighborhoods.

*Training and Technical Assistance*

Central program staff in the California Department of Health Services provided initial training and ongoing technical assistance to USOAC personnel responsible for organizing and managing the WN4S task force. Local lead agency staff and WN4S task force members were also provided access to external consultants who were experienced in conducting walkability audits, interpreting local pedestrian injury data, facilitating walkable community

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**Figure 1. The Hypothesized Walkable Neighborhoods for Seniors Model**

NOTE: Adapted from Doyle, Kelly-Schwartz, Schlossberg, and Stockard (2006).
workshops (WCWs), and making public presentations. Monthly group tele-
conferences and annual individual site visits were conducted to facilitate
problem solving, information exchange, and general program support and
recognition. Using these communication channels, local lead agency staff
were provided information on likely community partners and WN4S task
force members, potential sites for walkability audits, activities to raise aware-
ness among older adults and community leaders, WCW protocols, manage-
ment of older adult walking groups, advocacy opportunities, ways to leverage
resources, and anticipated challenges to success.

In summer 2004, a 1-day WN4S meeting was held to highlight program
accomplishments, present methods to overcome various challenges, share
lessons learned, and discuss program sustainability. Local lead agency staff
and program consultants played central roles in organizing and presenting
information at this meeting. This forum allowed for significant in-person
interaction among persons involved with the WN4S project.

Task Force Members

In summer 2003, using formal solicitations sent by direct mail, USOAC
invited persons from several agencies and organizations to be a member of
the WN4S task force. These persons were selected because of their potential
influence on policies and environmental features that could directly and
indirectly affect neighborhood walking by older adults. Accordingly, the
USOAC-WN4S task force comprised representatives from Alameda County
Sheriff’s Department, California Highway Patrol, Alameda County Public
Works Agency, Alameda County Department of Public Health (Senior Injury
Prevention Program), Alameda County Community Development Agency,
Alameda County Council, pedestrian advocacy groups, and citizens from two
targeted neighborhoods (Ashland and Cherryland). Under the direction of the
WN4S project coordinator, the task force met monthly to develop a work
plan, determine assignments, and review progress. Although each task force
member did not attend every monthly meeting, questions, suggestions, and
updates were regularly shared via telephone and e-mail.

Promoting Environmental and Policy Change

Assessing neighborhood walkability. To meet the undetermined needs of
the targeted neighborhoods, a process to assess neighborhood walkability
was developed and implemented by the USOAC-WN4S task force. This
process initially included a community presentation, a walkability survey
by older adults, and a walkability audit by task force members. Hundreds of flyers were delivered door-to-door in the two targeted neighborhoods inviting older adults to a community picnic that served as a WN4S kickoff event. Community presentations were given at six WN4S kickoff events featuring a total of more than 240 older adults in summer and fall 2003. These presentations educated older adults on the importance of walking, engaged older adults in discussions of personal walking goals and experiences, recruited persons for walking groups, discussed safe walking practices, and distributed walking maps. Community members were then invited to walk a selected route in the neighborhood and complete a survey on their personal perspective of the neighborhood’s walkability. The surveys helped to define individual barriers to walking, identify problem areas and existing environmental conditions, and assess older adults’ perceptions of safety along the walking route (see Appendix A). The WN4S project coordinator provided instructions on how to complete the walkability survey, and then she and other USOAC staff accompanied the older adults along selected routes. Completed surveys were turned in immediately after the older adults walked the selected route.

Information from more than 200 walkability surveys completed by older adults was used to focus the activities of walkability audits conducted by the USOAC-WN4S task force members. The walkability audit involved walking selected routes to record more detailed data pertaining to several factors including the type and quality of sidewalk; speed and volume of traffic; design, presence, and quality of crosswalks; timing of crossing lights; presence of benches, trees, and rest areas; and potential hazards (see Appendix B). WN4S task force members also provided data from other existing resources (e.g., Oakland Pedestrian Master Plan and Statewide Integrated Traffic Records System) that were incorporated into the audit to provide a more complete understanding of the walking routes’ suitability for older adults. For example, the traffic records system identifies where motor vehicle–pedestrian accidents occur and if they involved older adults. Intersections and other areas with high rates of these incidents warranted consideration for environmental and/or policy intervention.

In late 2003, the USOAC-WN4S task force hosted two WCWs facilitated by a nationally renowned walkability expert (i.e., someone with experience and/or expertise in transportation planning, local government operations, city planning, and constructing pedestrian and bicycle facilities) (Walkable Communities, 2006). These 4-hr workshops were conducted to further facilitate the mobilization of resources necessary to bring about the environmental and policy change recommendations identified from the earlier walkability audit processes. Persons responding to direct mail invitations to participate in
the WCWs included elected officials, city planners, transportation planners, public works engineers, law enforcement officials, public health professionals, pedestrian and other citizen advocates, local business owners, nonprofit organization leaders, and older adult residents from the targeted neighborhoods. The Ashland workshop involved 35 persons, and 50 persons attended the Cherryland workshop. Following a brief orientation, participants completed a 1-hr guided walking tour of the selected neighborhood to identify and record barriers and facilitators to walking and then convened to develop an action plan to improve the walkability of six proposed routes for older adults. Following this procedure, workshop participants divided into small groups with maps of the walking routes and information pertaining to barriers and facilitators to develop recommended strategies to enhance walkability. The entire group then reviewed and prioritized the strategies and identified resources and specific action steps required for implementation (California Center for Physical Activity, 2006).

**Promoting Behavior Change**

*Walking groups.* Six walking groups were formed to promote walking behavior among older adults. The groups provided a safe, fun, and reliable social setting for walking. These groups also helped to foster interest and confidence among the older adults to participate in many USOAC-WN4S task force–sponsored events (e.g., the WCW). Participants were primarily recruited from the six kickoff events and other ongoing outreach and public awareness activities targeting seniors (e.g., presentations at senior centers and housing facilities), as well as through word of mouth. Each group had a designated meeting place, walking route, group leader, and brightly colored t-shirts. The groups typically met 1 to 2 times each week and walked for 1 hr per session.

*Public awareness.* One of the USOAC-WN4S task force’s objectives was to conduct a major public awareness event. This event was designed to increase awareness of the benefits of regular physical activity for older adults, encourage them to become and remain active, and refer them to community physical activity programs including the task force–sponsored walking groups. To garner required resources and support, the event was broadened to feature many aspects of healthy and active living for seniors. The result was the formation of the Healthy Living Festival with aforementioned partners joined by Alameda County Meals on Wheels, Lifelong Medical Care, UC Berkeley Traffic Safety Center, Alameda County Nutrition Services, Hill and Company Communications, and
other physical activity, health, and older adult-oriented businesses and agencies as cosponsors.

**Project Evaluation**

The evaluation methods established by central program staff and jointly implemented with local lead agency staff (described below) enabled the collection of information about project activities, characteristics, and outcomes allowing for central and local program staff to make judgments about the project, improvements in project effectiveness, and informed decisions about future project activities (USDHHS, 2005). In addition, the evaluation focused on producing accurate findings to provide evidence about the success of the project, identify key factors that influenced success, and convey lessons learned to enhance potential similar interventions by others (Bryant, Altpeter, & Whitelaw, 2006).

At 6-month intervals, local lead agency staff submitted written progress reports to central program staff in response to a standardized form with a list of topics to address and several open-ended questions. Information was requested on the composition of the WN4S task force (e.g., number of members local agency or organization that members represented), number and description of formal WN4S awareness activities and meetings, the number of walkability audits and workshops conducted, and a full description of any walking groups created. Open-ended queries pertained to project challenges, accomplishments, lessons learned, products developed, changes in physical environment or policies, and future plans. Personal conversations between central program staff and the local project coordinator and direct observations by central program staff during periodic site visits also assisted with gathering information that served to help evaluate each WN4S local lead agency’s progress. A final written progress report combined with a personal interview with the local project coordinator was conducted to verify and add to any of the information that had been provided during the course of the project. Topics of interest and the open-ended questions used to generate information for the progress and final reports, informal conversations, and final interview are listed in Table 1.

**Results**

A complete listing of challenges, accomplishments, and lessons learned is provided in Table 2. The Results section contains a summary of selected outcomes related to environmental, policy, and behavior change.
Table 1. Information Requested and Open-Ended Questions Used to Elicit Information From Local Project Coordinators for Progress and Final Reports to Evaluate the Success of the Project

1. What individuals (and their affiliations), organizations, and agencies are involved with the project? How have they been involved and what have they contributed?
2. Which persons or agencies and/or organizations really stepped up to make a difference in helping you to achieve your goals and objectives? Why and how did they help?
3. Please present the findings of your project in terms of
   a. lessons learned, specific accomplishments
   b. challenges and/or barriers
   c. behavioral outcomes
   d. attitude changes
   e. policy changes
   f. changes in the built and/or physical environment
   g. creation of a product and/or tool
   h. development of a strategic plan or
   i. leveraging of funds to garner additional resources (e.g., person, time, space, service, supplies, or money)
4. List the various ways that the efforts of the WN4S project resulted in collateral efforts undertaken by others. Did the project facilitate others to take action? What type of action? Who took the action? Why did they take action? What were the results of this action?
5. Based on your experience, what do others need to know if they are to undertake a similar effort? What might be essential ingredients for success? Are there any words of caution you would give them? What resources should they have to achieve success? What kind of successes should they expect?
6. What are your plans for the future? What are the next steps? What will it take to achieve those steps? What elements of the WN4S project will be sustained, dropped, postponed, etc.?
7. If this type of training were expanded to other communities, what should be included in training and orientation sessions to best prepare the communities for such an endeavor?

a. Local project coordinators were allowed to self-interpret the meaning of each statement and specific words in each statement (e.g., collateral efforts, success, or resources)—definitions were not provided although some examples were provided if requested.

Promoting Environmental and Policy Change

The kickoff events involving more than 240 older adults attracted major newspaper, network television, and local radio coverage that assisted in providing awareness and credibility for the task force and the project. In addition, the walkability survey completed by these older adults and audit data subsequently gathered by task force members were organized into a document that was distributed to appropriate state and local agencies (e.g.,
Table 2. Accomplishments, Lessons Learned, and Challenges Experienced During the Implementation of Walkable Neighborhood for Seniors (WN4S) Project by United Seniors of Oakland and Alameda County (USOAC)*

Challenges
1. establishing meetings and activities to accommodate task force members’ schedules
2. overcoming a history of lack of communication among local agency staff
3. developing credibility among older adults living in targeted neighborhoods
4. creating an individual and collective identity for walking groups
5. managing several walking groups with few local project staff
6. arranging transportation for older adults to special events
7. accommodating a much larger-than-anticipated attendance at the initial Healthy Living Festival

WN4S Accomplishments
1. newly formed partnerships among local government agencies, community-based organizations, public health professionals, and pedestrian and citizen advocates
2. development of walkability audit procedures and assessment tools that can be used by older adults and professionals
3. conduct of walkable community workshop with national walkability expert
4. training of project coordinator as a walkable community expert and consultant
5. invitation of project coordinator to consult on major city and county transportation and livability planning initiatives
6. selection of several sidewalks on assessed older adult walking routes for sidewalk improvement project
7. agreement by local government departments to adopt Ahwahnee Principles when reviewing county development projects
8. development of 10 older adult walking groups in previously underserved areas
9. developing a cadre of trained and committed walking-group peer leaders to reduce burden of program staff
10. communication with thousands of older adults and their caregivers via community outreach and educational activities including the annual Healthy Living Festival
11. leveraging of program funds and local efforts to obtain small grants from local foundations and agencies to support and expand task force activities
12. invited by Alameda County Area Agency on Aging to be a key partner on the Eat Better and Move More grant administered by the U.S. Administration on Aging
13. significant media coverage of several task force–sponsored activities
14. establishment of a project Web site (www.ebdir.net/wn4s)

Lessons Learned
1. USOAC effectively served as the local lead agency for a task force focused on facilitating environmental and policy changes to promote walking by older adults
2. having previous experience in spearheading older adult injury prevention initiatives created an advanced stage of readiness within USOAC for the WN4S project

(continued)
Departments of Transportation and Public Works) and elected officials (e.g., mayors, county supervisors, and city council members). The document encouraged action in establishing walkable neighborhoods and to focus the efforts in areas with the most need. Recommendations for environmental and/or policy changes required to improve the conditions for walking were also included in the report.

The two WCWs involving 85 representatives from key local agencies, organizations, and citizen groups also attracted significant media coverage. The action plan developed during the workshop identified traffic-calming measures, sidewalk improvements, and strategies to reduce crime as high priority. This action plan, which also entailed possible resources and partners to implement various strategies, served as a guide for future WN4S task force and local agency efforts.

The above-mentioned activities and outcomes helped influence the Cherryland Redevelopment Sidewalk Project overseen by the County Public Works and Redevelopment departments. Six streets in Cherryland were selected for the installation of sidewalks, curbs, gutters, and traffic-calming measures. These streets were assessed during the WN4S audit and WCW processes, and four were designated as walking routes for older adults.
Although there were many steps involved with the project’s selection process, it was recognized that the USOAC-WN4S task force efforts had generated awareness and provided assessment data that helped prioritize the streets in need of sidewalk improvements.

A major outgrowth from the USOAC-WN4S task force–sponsored WCW was the Eden Area Livability Initiative. The WCW expert facilitator was invited to return to conduct three livable community seminars as part of a strategic visioning process to improve coordination among county agencies focusing on livable community projects. The seminars involved previously mentioned county agencies and the Redevelopment Citizens Advisory Commissions, Board of Zoning Adjustments, and Alameda County Planning Commission. Each of these entities is critical to approving and applying the policies that dictate land use and community development. The USOAC-WN4S task force coordinator was selected as a consultant to help coordinate the full strategic visioning process to create the Eden Area Integrated Strategic Vision. This vision will entail many recommendations for environmental and policy changes to improve walkability that was acknowledged as a key element of livability by leaders overseeing the initiative.

Another important outcome was several requests for USOAC-WN4S task force coordinator to represent older adult pedestrian concerns and needs for a variety of regional and local efforts including the Unincorporated Alameda County Pedestrian Master Plan, Ashland/Cherryland Community Based Transportation Plan, and Alameda County Pedestrian Master Plan organized by Alameda County Transportation Improvement Authority.

Promoting Behavior Change

Walking groups. A total of nearly 250 older adult walkers met weekly at one of six sites (four senior centers, one community center, and one older adult housing facility) with leadership and supervision initially provided by USOAC staff. As additional resources became available through external grants, 23 older adult volunteers were trained to lead the walking groups. Of these 23 volunteers, 8 emerged as volunteers committed to being a walking-group leader on a continual basis. As a result, six additional walking groups were organized in other county locations. When many of the walking groups matured, they added other weekly days to meet for walking and organized social events to strengthen group cohesion.

Public awareness. Held in summer 2004, the Healthy Living Festival attracted 50 exhibitors, 80 volunteers, and more than 700 older adults, family members, and friends. Nearly 450 of these persons participated in a 3-mile walk-a-thon to raise funds for future WN4S activities. This event
was deemed so successful that the USOAC-WN4S task force and several key partners agreed to devote resources to make the festival an annual event. A second festival was held in summer 2005 with 73 exhibitors, 60 volunteers, more than 1,200 older adult and other attendees, and 550 persons involved with the 3-mile walk. These two events raised more than US$6,000 for the USOAC-WN4S task force and partners’ efforts. These funds were used primarily to support expenses related to operating the walking groups (e.g., stipends for peer group leaders and incentives for participants).

**Obtaining additional resources.** The USOAC-WN4S task force garnered an additional $72,400 in funds from five other agencies including the East Bay Community Foundation, Oakland Pedestrian Safety Project, City of Oakland, Administration on Aging, and California Health Care Foundation. These funds, which were procured via the submission of grant proposals written by the WN4S task force coordinator, helped financially support the walking-group peer leaders, Healthy Living Festival, and other older adult health promotion activities. Funds were also used to provide incentives (e.g., t-shirts, pedometers, and walking maps) for participants in the walking groups.

As a result of its WN4S efforts, USOAC was invited to be a partner organization with the Alameda County Area Agency on Aging who was awarded 1 of 10 You Can! Steps to Healthier Aging grant from the U.S. Administration on Aging to implement the Eat Better and Move More program. USOAC’s experience in promoting walking for older adults via the WN4S program was cited as the motivation to form the partnership to help deliver this healthy lifestyle program.

**Discussion**

USOAC was able to effectively organize and manage a task force with diverse representation whose charge was to identify and develop safe walking routes for older adults. Although several challenges arose during the process of implementing task force activities, solutions were derived through several mechanisms (see Table 1). The capacity to utilize many local resources (including people, places, and funding) enabled the task force to achieve several significant accomplishments in a relatively short amount of time (see Table 1). The establishment of built environments, policies, and programs supportive of walking by older adults should result in increased physical activity, reduced risk and better management of chronic conditions, and fewer activity limitations in this growing segment of the population (Doyle et al., 2006; see Figure 1). It is also assumed that improving the walkability of neighborhoods
for older adults will translate to improved walking conditions for persons of all ages and functional capacities, thereby potentially enhancing the health and function of the entire community.

**Promoting Environmental and Policy Change**

Prior to the WN4S project, USOAC had previously spearheaded the Oakland Pedestrian Safety Project and the Senior Injury Prevention Project in partnership with various city and county agencies, local businesses, and community-based organizations. These programs executed multidimensional methods aimed at reducing injuries in the older adult population. These experiences provided a firm foundation for USOAC’s extended efforts with the WN4S project and its focus on promoting physical activity via a multilevel approach including environmental and policy strategies. Established relationships between various community entities involved with these older adult injury prevention initiatives created a stage of readiness that enabled the WN4S project to be organized in a timely manner in Alameda County.

Clearly, gaining access to and favor from key agencies was critical to the overall success achieved by the USOAC-WN4S task force. This was partially accomplished through the efforts of USOAC’s executive director, who was also an Alameda County supervisor and past member of the Oakland City Council. This person’s reputation among elected officials, local government agencies, businesses, and older adult citizens helped the WN4S project immediately gain some credibility. This person also facilitated access for USOAC-WN4S task force members to meet with local elected officials, government staff, and other community stakeholders, thereby promoting efficient and effective use of time and resources. The walkability audits and workshops were cosponsored by the office of this county supervisor that encouraged attendance by representatives from key partners (e.g., law enforcement, transportation, public works, and community development). It has been demonstrated in similar community endeavors that WCWs and their outcomes are greatly enhanced with participation from local government officials and staff in combination with citizens from the potentially impacted neighborhoods (Walkable Communities, 2006). Informal discussions with task force members and others indicated that the conversations between local agency personnel stimulated by the WCWs had not occurred in several years. Overcoming lack of communication among local agency staff can be challenging. However, as observed with the USOAC-WN4S project, WCWs can provide an effective forum to address this issue.

Because of the county supervisor’s role in the project, and the fact that other key entities became engaged, the media became highly interested and provided excellent coverage of the kickoff events, WCWs, and the Healthy
Living Festival. The media coverage created visibility and credibility for the task force and its collaborators. As with other community prevention initiatives, having a local champion affiliated with the project that could mobilize the right people, foster strong working relationships, and establish credibility was certainly a major factor in helping the task force attain community trust and, ultimately, its objectives (Butterfoss, Goodman, & Wandersman, 1996).

It was also apparent that having a person with extensive knowledge about environmental and policy issues that could affect older adults’ walking behavior and the ability to effectively interact with persons from diverse disciplines proved essential to the project’s overall success.

Although the executive director/county supervisor played a vital role initially, the USOAC-WN4S project coordinator fulfilled crucial day-to-day duties that provided cohesion to the entire project. Over time, this person emerged as a well-respected task force leader and a walkable community expert with particular expertise in the needs and preferences of older adults. The project coordinator participated in a WCW train-the-trainer seminar (California Center for Physical Activity, 2006) and became a trainer of local experts who could lead these workshops in their communities. Having received this and other training, the project coordinator was able to effectively communicate with representatives from local government agencies, pedestrian advocate organizations, and older adult citizen groups. This translated into sustaining effective working relationships with persons from diverse disciplines and backgrounds and being invited to provide technical assistance and consultation to critical activities (e.g., the Eden Livability Initiative, Ashland/Cherryland Community Based Transportation Plan, Alameda County Pedestrian Master Plan) that will influence the walkability of many neighborhoods in Alameda County for years to come. Transportation master plans are the foundation by which project and funding decisions are determined over a 15- to 25-year period. Thus, the integration of older adult pedestrian concerns in these plans will be vital to meeting the future transportation needs of this segment of the population.

Despite all of the momentum and progress achieved during the course of the project, patience and diligence were abundantly required. Changing polices and/or physical environments takes time and, often, significant resources. There are many complex procedures and regulations pertaining to land use, road and sidewalk construction, striping of crosswalks, timing of crossing signals, and community design in general (Frank et al., 2003). Most often, approval and input from more than one agency is required for changes or improvements to be implemented. Persistent attendance at private and public meetings was required and shared among task force members and citizen advocates. Having a constant presence at these forums kept the task force’s issues and concerns in the minds of decision makers that resulted in
significant achievements. One such achievement was the Cherryland Redevelopment Sidewalk Project. Because the USOAC-WN4S task force was in place and made its presence known, several of the sidewalks selected for improvement were those audited and prioritized as potential safe and attractive walking routes for older adults.

Another collateral achievement was an agreement by several local government departments to refer to the Ahwahnee Principles when reviewing all county development projects. Such an achievement was not attributed to specific USOAC-WN4S task force activities but rather due to representatives from the local government departments entering into the agreement being on the WN4S task force or at the WCWs. As a result of being involved, these persons were exposed to many issues related to walkability and the built environment. The Ahwahnee Principles, when adopted, promote the development of walkable neighborhoods and communities (Corbett & Velasquez, 1994). These principles state that communities should have streets, pedestrian paths, and bike paths that contribute to a system of fully connected and interesting routes to all destinations. Furthermore, their design should encourage pedestrian and bicycle use by being small and spatially defined by buildings, trees, and lighting, and by discouraging high-speed traffic. Thus, the agreement to apply the Ahwahnee Principles to development projects could have far-reaching implications on community design and transportation options in Alameda County for years to come.

*Promoting Behavior Change*

The formation of walking groups served two primary purposes. One was to provide older adults with a safe and fun opportunity to walk in a supportive social setting. Organizing the groups within senior and community centers proved wise as persons attending these facilities have an established rapport with center staff, possess common social and cultural values, typically live in nearby neighborhoods, and have transportation options to visit the site. Centering the start of the walking groups within WN4S kickoff events helped create excitement and encouragement to participate. The goal was to utilize this traditional health education approach to behavior change and then compliment it with environments and policies that would support the desire to walk. Another purpose that was served by these walking groups was the development of older adult walking advocates. Participating in walkability surveys, audits, and workshops helped create confidence in several of the older adults, and they provided a face and voice for older adults to be seen and heard by elected officials and local agency staff.

Over time, it was apparent that the walking groups had become too dependent on USOAC staff for leadership and motivation. Although this
was manageable in the early phases of the project, it became burdensome on USOAC staff as more walking groups were formed. In an effort to sustain the walking groups over time, it was deemed essential to gradually relinquish responsibility for ongoing supervision of the groups to the older adults themselves (Nguyen, Gauvin, Martineau, & Grignon, 2005). This was accomplished through an external grant that enabled the training, minor financial compensation, and social support of peer leaders. This effort also resulted in the formation of additional walking groups, more days for walking, and recruitment of new participants, not to mention the removal of significant time and resource burdens on the project coordinator and other staff who had previously supervised the groups.

**Strengths and Limitations of the Project Evaluation**

Community coalitions and task forces are now an accepted strategy for promoting health through community development (Butterfoss, Goodman, & Wandersman, 1993; Reinert, Carver, & Range, 2005). However, it was not known if a local nonprofit experienced in working with older adults could successfully organize and manage a task force focused on facilitating environmental and policy changes to promote walking. This role has most often been assumed by public health professionals, physical activity specialists, or pedestrian advocates. However, the information gained from the evaluation indicated that USOAC and the project coordinator were very effective in mobilizing local resources to build community capacity to accomplish many of the WN4S goals and objectives.

One strength of the evaluation system utilized in the WN4S project is that information was obtained from a variety of sources: in-person conversations with project coordinators and task force members in a variety of venues (i.e., teleconferences, site visits, and WN4S conference), several written reports, and direct observations by central program staff. These sources are similar to those used by others when evaluating the efforts of prevention coalitions and task forces (Florin, Mitchell, Stevenson, & Klein, 2000; Reinert et al., 2005). However, the definitive indicator of any community prevention task force’s effectiveness will be changes in behavior or health at the individual and/or population level (Butterfoss et al., 1993).

Because of the limited resources provided to USOAC, central program staff were hesitant to add any additional evaluation requirements. If resources had allowed, processes to measure changes in the physical activity behavior of several hundred older adults could have been applied. These processes may have included self-report physical activity questionnaires to estimate weekly energy expenditure or pedometers worn by the participants to measure accumulated steps (Welk, 2002). Future efforts to evaluate the impact of
environmental and policy interventions on population and/or individual physical activity behavior change will likely require substantial resources because it may take many years for the full influence of such measures to be realized (Frank et al., 2003; Sallis & Owen, 1999).

A standardized questionnaire could also have been administered to the task force members and others that were involved with task force–sponsored activities. Formal feedback from these persons would have assisted in quantifying the effectiveness and competency of USOAC and the project coordinator in managing the task force’s efforts (Hooker & Cirill, 2006). Questionnaires could also have been completed by walking-group peer leaders to assess their experiences with the project. Despite the absence of a formal evaluation system for these components, input was received through less formal processes of spontaneous in-person conversations with task force members, community partners, walking-group peer leaders, and walking-group participants during site visits. One should not underestimate the potential importance of information obtained through less formal methods. Indeed, in the context of evaluating community-based programs, it has been stated that multiple sources of information greatly reduce the chances that vital information will be overlooked (Bryant et al., 2006; Reinert et al., 2005).

Sustaining USOAC-WN4S Task Force Efforts

The USOAC Board has adopted the WN4S project as one of its leading priorities lending support to continue convening the task force, providing overall supervision to the walking groups, organizing the Healthy Living Festival, and advocating for walkable neighborhoods for older adults (and others). Additional environmental and policy changes that have been identified by the USOAC-WN4S task force include developing standard signs alerting motorists to the presence of older adult pedestrians, using a standard color of paint for crosswalks near older adult pedestrian zones, the doubling of the fines for motorists who violate traffic laws in designated older adult pedestrian zones, and the development and testing of alternative sidewalk surface materials to reduce the risk of injuries from falling in older adults. The task force will work with partners to bring about these proposed strategies. Another effort will be focused on advocating for a portion of funds raised from a voter-approved one-half cent county sales tax for health care be used to implement a sustainable older adult injury prevention program. This program will feature WN4S as a program priority. Last, ongoing participation with the Eden Livability Initiative and various transportation master plans will set the stage for change in the unincorporated areas of the county that will support walkable communities for persons of all ages well into the future.
Appendix A

United Seniors of Oakland and Alameda County
7200 Bancroft Ave., Suite 178
Oakland, California 94605
(510) 729-0852  Fax (510) 729-0796
Website: www.usoac.org
Email: USOAC@usoac.org
Empowering Seniors  ●  Enriching Youth  ●  Enhancing Community

Walkable Neighborhoods for Seniors
Walkability Survey

Walkable Neighborhoods for Seniors (WN4S) main goals are to increase public and policymakers’ awareness on the benefits of walking for older adults, increase older adult pedestrian safety and walking behavior, and develop a broad base coalition/taskforce to implement a workplan that promotes environmental and policy changes. Please visit our website, www.usoac.org, for more information on United Seniors of Oakland and Alameda County and the Walkable Neighborhoods for Seniors Project.

• Using the Survey
  1. Take a walk around the designated neighborhood route
  2. Use this walkability survey to identify conditions that affect the walking route
  3. If there are problems that exist that are not listed on the survey please note them in the appropriate section
  4. If possible please note the location where the problem exist

We would like find out more information about how you perceive the walkability of the community. Please answer the following questions about the walking route and yourself. Answer as honestly and completely as possible and provide only one answer for each item, unless specified.

Thank you for your participation!

*In order to have a better understanding of what you’re looking for, please review the entire survey before you walk the route

(continued)
Appendix A (continued)

Walkable Neighborhoods for Seniors
Walkability Survey

Participant Information Form

Location/Walking Route:

Your name:

Your street address w/ zip code or general residential area:

Is your home within 2 blocks from this route?

Your age (this is for statistical purposes): ___________  •  Sex: Female  Male

Do you exercise?  Yes  No  •  Is walking part of your daily routine?  Yes  No

How did you get here today?  •  Do you find walking enjoyable?  Yes  No

Do you use any devices to aid in your mobility?  (e.g. walker, wheelchair, cane, etc.)

How many of your daily trips could be walking trips?

Rarely  Some  Nearly half  Over half  All

How many of your daily trips are walking trips?

Rarely  Some  Nearly half  Over half  All

Would you walk this route again?  Yes  No

Why or why not, please explain:

Out of the 5 sections, please rank them in order of importance to you.
(1 being most important and 5 being least important)

_____Sidewalks
_____Crossing Streets
_____Traffic & Driver
_____Visibility & Signage
_____Desirability or Appeal of the area

*All questions are optional and used only for statistical purposes

(continued)
### Appendix A (continued)

**Walkability Survey**

<table>
<thead>
<tr>
<th>Side Walks</th>
<th>Agree</th>
<th>Disagree</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>A)</td>
<td>Sidewalks are in place on both sides of the street</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>B)</td>
<td>Sidewalks are continuous (no missing segments)</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>C)</td>
<td>Sidewalks are smooth/flat/unbroken</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>D)</td>
<td>Sidewalks are free from obstructions (e.g. poles, signs, shrubs, tree roots, cars, etc.)</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>E)</td>
<td>Sidewalks are wide enough for two people to pass each other comfortably</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**Notes:**

<table>
<thead>
<tr>
<th>Crossing Streets</th>
<th>Agree</th>
<th>Disagree</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>A)</td>
<td>There are pedestrian crossing signals at intersections</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>B)</td>
<td>Crosswalks are marked/striped</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>C)</td>
<td>Crosswalks are visible</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>D)</td>
<td>There is enough time to cross the street</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>E)</td>
<td>There are curb cuts/ramps</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**Notes:**

<table>
<thead>
<tr>
<th>Traffic &amp; Driver</th>
<th>Agree</th>
<th>Disagree</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>A)</td>
<td>Motorists are driving at reasonable speeds</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>B)</td>
<td>Drivers often do not come to complete stops at stop signs</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>C)</td>
<td>Drivers often yield to pedestrians</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>D)</td>
<td>Pedestrians are sufficiently separated from moving traffic</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>E)</td>
<td>Along the route, drivers often back out of the driveway without looking</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**Notes:**

(continued)
Appendix A (continued)

<table>
<thead>
<tr>
<th>Visibility &amp; Signage</th>
<th>Agree</th>
<th>Disagree</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>A) There is adequate lighting to see where you are walking after dusk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B) There is adequate lighting at crossings and street corners</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C) In crossing areas, your view of traffic is free from obstructions (i.e. trees, poles, signs, parked cars)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D) Yield to pedestrian signs are present</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E) You can easily see the distinction between curb level and street level</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: __________________________________________________________________________

<table>
<thead>
<tr>
<th>Desirability or Appeal of the area</th>
<th>Agree</th>
<th>Disagree</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>A) There are other people out walking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B) The route is clear of litter and debris</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C) There are benches along the walking route</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D) There are shops and convenience stores on the route</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E) There are trees that provide shading along the route</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F) The sidewalk area has appealing views (i.e. landscaping, street art, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G) Bus stops are present on the route or are within walking distance from the route</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H) There is access to public telephones in the general vicinity</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: __________________________________________________________________________

Please rate the overall quality of the route?

<table>
<thead>
<tr>
<th></th>
<th>1 Excellent</th>
<th>2 Above Average</th>
<th>3 Average</th>
<th>4 Below Average</th>
<th>5 Terrible</th>
</tr>
</thead>
</table>

Thank you for completing the WN4S survey!
# Appendix B

## Walkable Neighborhoods for Seniors

### Walkability Audit

<table>
<thead>
<tr>
<th>Date:</th>
<th>Time:</th>
<th>Day of week:</th>
<th>Weather conditions:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Distance/ Length of section:**

**Sidewalks & Crossings**

Surface conditions (Scale 1 being highest quality & 5 being lowest quality): 1 2 3 4 5

What kind of material is the sidewalk made of?
- [ ] Cement
- [ ] Asphalt
- [ ] Concrete
- [ ] Dirt
- [ ] Boards / wooden planks
- [ ] Woodchips
- [ ] Gravel
- [ ] Other

Is the surface:
- [ ] Smooth & continuous
- [ ] Cracked & continuous
- [ ] Smooth & fragmented
- [ ] Cracked & fragmented
- [ ] Other

Is there foliage obstructing the walking path? Yes No

Explain: House # or general area:

Are there curb ramps at intersections? Yes No

Are the curb ramps
- [ ] 2 cut curbs into intersection
- [ ] 1 cut curb into intersection
- [ ] Other

Are the curb ramps marked with paint? Yes No

Color ____________________

<table>
<thead>
<tr>
<th>Faded</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

At the crosswalks are there:
- [ ] Traffic lights
- [ ] Visual crossing signals
- [ ] Audio crossing signals
- [ ] Button
- [ ] Painted/marked
  - [ ] cross hatch marks with parallel stripes
  - [ ] parallel stripes
  - [ ] faded paint
  - [ ] Structurally sound
  - [ ] Other

How many marked crosswalks are there? ________

Is j-walking an issue in area? Yes No

(continued)
### Appendix B (continued)

<table>
<thead>
<tr>
<th>Traffic &amp; Street conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily traffic patterns:</td>
</tr>
</tbody>
</table>

- Are there posted speed limits? Yes No
- What is the speed limit: _______
- Number of traffic lanes: _______

<table>
<thead>
<tr>
<th>Is the street…</th>
</tr>
</thead>
<tbody>
<tr>
<td>flat</td>
</tr>
<tr>
<td>concave</td>
</tr>
<tr>
<td>convex</td>
</tr>
</tbody>
</table>

### Signage & Desirability

- Is there adequate lighting in area? Yes No
- Is there appropriate senior signage? Yes No
- Is there a convenience store near? Yes No
- Is there access to H2O? Yes No
- Is this section considered to be…
  - Residential
  - Industrial
  - Commercial
  - Mixed Use
  - Other

- Are vehicles obstructing the walking path / sidewalk? Yes No

<table>
<thead>
<tr>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do people on bicycles &amp; skateboards/roller-skates pose a threat to people? Yes No</td>
</tr>
</tbody>
</table>
References


*Article accepted January 10, 2007*

Steven P. Hooker’s research interests include physical activity and aging, environmental and policy approaches to promoting physical activity, community-based interventions to promote physical activity, and the impact of physical activity on the risk of chronic disease.

Lisa Cirill is interested in applied research on best practices for increasing opportunities for everyday physical activity through environmental and policy change. She is conducting research to establish recommendations on the design and placement of schools to increase the number of children and their families walking and bicycling to schools and other neighborhood destinations.

Lucy Wicks specializes in the interdisciplinary coordination of local government to create livable communities and walkable neighborhoods. She is currently researching and developing health promotion and land use policy at the local level in Alameda County, California, and supports the advancement of policy considerations that encourage healthy living by design.