

## University-Community Health Advancement Partnerships That Work

*Linda Houtkooper, Linda Larkey, Robin Harris  
Sharon Hoelscher Day, Vickie Steinfeld  
Joel Meister, Ralph Renger, Linda Block  
Marilynn Johnson and Stuart J. Cohen*

### Abstract

The Community Health Advancement Partnerships (CHAPS) initiative demonstrates how universities can work with communities to advance health promotion programs. The CHAPS initiative was developed based on shared visions, goals, and funding from both the university and community partners. CHAPS links university health-related education and research efforts to community organizations through partnerships with county Cooperative Extension offices throughout the state. CHAPS projects include four components: co-direction by faculty from the College of Agriculture and Life Sciences and the College of Public Health; partnerships with community task forces; utilization of research-based health promotion models for project development; and provision of service-learning opportunities for students. This CHAPS initiative model advances the scholarship of engagement by demonstrating how connecting the resources of university and community organizations can address pressing health problems.

**T**he Community Health Advancement Partnerships (CHAPS) initiative is a demonstration of how universities can work with communities to advance health promotion programs. This initiative, developed out of the University of Arizona, creates and fosters formal connections within the university and with communities throughout the state. Within the university, partnerships are developed between education and research efforts and between campus-based and community-based faculty. Partnerships are then extended from the university to communities. This report describes the context for development of the CHAPS initiative and the various specific health advancement projects fostered by the partnerships.

CHAPS is based on community engagement—the need for partnerships among health-related community stakeholders in order to effect change and improve health (*CDC 1997*). Furthermore, CHAPS defines health as a state of well-being with the capability to function in the face of changing circumstances. This definition emphasizes social and personal resources as well as physical capabilities (*Durch, Bailey, and Stoto 1997*).

The health advancement projects created through this initiative were developed using the logic model for program development and evaluation proposed by the University of Wisconsin (UWEX 2001). This report describes the CHAPS initiative using the four components of the model: situation, assumption and environment, inputs, and outputs–outcomes–impacts.

### CHAPS Initiative Process

**Situation:** Chronic diseases are responsible for 70 percent of the deaths in the United States and account for approximately \$400 billion annually in medical care costs (CDC 1999). Much of this chronic disease burden is preventable (Tuomilehto *et al.* 2001; HHS 2001). Effective prevention measures can substantially reduce the illnesses, disabilities, and unnecessary or early deaths caused by chronic diseases (CDC 1999). Leaders in health care and education consider one major health issue to be the need for more effective community-based education programs that provide a health care access targeted at the prevention of chronic diseases. (Stoto, Abel, and Dievler 1996; Couto 2000; Boyer 1996).

Arizona has a number of unique health-related issues because of its rapid growth in population, its large number of senior retirement communities, and its geographical location on the border with Mexico. Arizona's population increased by 40 percent between 1990 and 2000, making the current population slightly more than five million people and the population density around 45 persons per square mile. Thirteen percent of the population is 65 years of age or older, 27 percent is less than 18 years of age (U.S. Census Bureau 2000). The border region with Mexico has relatively high unemployment and poverty levels, which negatively affect individual and community health (GAO 1999).

**Assumptions and Environment:** Two colleges within the University of Arizona, The College of Agriculture and Life Sciences (CALS) and The College of Public Health (COPH), launched the CHAPS initiative in 1997. This initiative created a formal link between campus-based health-related education and research efforts and locally based community organizations through partnerships with the CALS Cooperative Extension faculty located in counties throughout the state. A specific aim of these partnerships was to investigate opportunities for increasing awareness of ways to develop and disseminate community health promotion programs.

The goal of the CHAPS initiative is to foster "Healthy People in Healthy Communities." It seeks to achieve this by promoting

the capacities of individuals, families, and communities to lead healthier lives; strengthening community leadership and involvement in developing health promotion program strategies; helping tailor local health infrastructures to meet community health promotion needs; and obtaining pilot data that could aid additional grant support and publications. All projects launched through the CHAPS initiative include four core components: (1) projects are co-directed by faculty from CALS and CPH; (2) project directors work in partnership with community task forces in the development, implementation, and evaluation of the community health advancement projects; (3) projects use research-based health promotion models and include evaluation components; and (4) projects provide “community health promotion laboratories” for students to participate in faculty directed service-learning.

**Inputs:** Three factors made development of the CHAPS initiative possible. First was the willingness of selected faculty from the CALS and CPH to take leadership in creating health-related out-

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reach programs and in mentoring graduate students. In addition, seed money from CALS and CPH provided resources for an initiative facilitator and travel and operations expenses to support planning and communication among initiative partners. Finally, central administration provided support, and a faculty facilitator fostered the partnerships within the colleges and between the projects.

A team of CALS and CPH faculty and administrators has guided CHAPS development. These team members met semi-annually to share project ideas. In addition, the project directors met monthly with community partners to plan the local design, implementation, and evaluation of projects. The CHAPS facilitator and project directors also held bimonthly conference calls to discuss current activities and plan future project actions. A Visioning Task Force provided guiding principles and set overarching goals for the partnerships. A Web site (<http://ag.arizona.edu/NSC/new/chaps.htm>) facilitated communication among team members, provided accessible information about the projects, and provided connections to

other resources. The Web site provided the history, specific aims, goals, and names of the leadership team of the CHAPS initiative, access to the annual progress reports for each community-based project, and information on how to contact the project directors and facilitator.

**Outputs–Outcomes–Impacts:** Under the CHAPS initiative, University-community partnerships were formed in four Arizona counties. These partnerships developed projects to address community-identified priorities and provide service-learning opportunities for students (*Connors et al. 1996*). Graduate and undergraduate students became actively engaged in community health promotion programs by conducting literature searches, collecting and analyzing data, developing screening programs, and teaching community education. As a result of this initiative, multidisciplinary statewide partnerships were developed through efforts of CHAPS project directors. Furthermore, the initial projects led to additional funding to support faculty involvement and career development.

CHAPS projects were launched in 1997 in three counties: Yuma (along the Mexico-Arizona border) and the two counties with major population centers, Maricopa and Pima. In 1999 a fourth project began in the border county of Santa Cruz. All projects included early and consistent involvement of local community members and organizations. Community task forces, led by CHAPS

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project directors, were formed to play key roles in project selection, development, implementation, and evaluation. A brief description of each community-based project follows.

### **Yuma County—“Yuma on the Move”: Promoting Physical Activity**

According to the results of the Behavioral Risk Factor Surveillance Survey conducted by the Centers for Disease Control and Prevention, Arizona adults are ranked as the fourth least physically active adults in the country. Within Arizona, Yuma County had the highest frequency of adults with low levels of physical activity (*PRC 1999; Flood 2000*). In 1996, the Yuma Regional Medical Center commissioned a community health assessment based on a random-digit

telephone survey that also identified high levels of inadequate physical activity among adults in Yuma County. In response to these findings, a local Alliance for Healthy Communities task force was convened to promote community physical activity programming efforts and resources. This task force was spearheaded by CHAPS project directors and included representatives from the regional medical center, private businesses, schools, the local media, the county health department and other city

and county government agencies, and private citizens. This task force developed a media-based social marketing project, “Yuma on the Move,” that targeted helping inactive people become aware of the health benefits of physical activity. This

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project later expanded to include community education programs focused on the prevention of osteoporosis and diabetes. Partnerships were formed with the statewide Arizona Osteoporosis Coalition, which was funded by the Arizona State Legislature, and the Border Health Strategic Initiative, which targeted diabetes prevention and was funded by federal appropriations.

### Maricopa County—“Bone Builders”: Osteoporosis Prevention

Bone Builders is the CHAPS project developed in Maricopa County and then expanded into a statewide initiative. A task force of community members was convened to develop an osteoporosis prevention project. Funding for the curriculum development and evaluation was obtained from a local foundation. The project targeted women 25 to 55 years of age and was designed to provide education for the prevention of osteoporosis. It was implemented through intensive training of community volunteers who distributed educational materials, taught workshops, provided osteoporosis screening, and staffed health fairs. In December 1999, with funding from the state legislature and in partnership with the Arizona Osteoporosis Coalition and state and county health departments,

an osteoporosis prevention education program was launched in seven other counties within the state. This revised program includes adult education, a media campaign, osteoporosis screening, and health care provider education. CHAPS team members serve as coordinators and evaluators of the statewide education, marketing, and outreach activities targeted at preventing osteoporosis.

### **Pima County—“Building Partnerships for Successful Aging”**

Initial CHAPS efforts in Pima County focused on development of health promotion programs to enhance the quality of life in the aging population using a planned retirement community as the resource community. This partnership worked in collaboration with a task force of community and university agencies to conduct a health needs assessment and to identify visions for the community to address these needs. The CHAPS team has become a part of the task force to promote healthy lifestyles. The task force is charged

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with developing and implementing a community program to increase physical activity and raise the level of connectedness and satisfaction within the community. This program is still under development and will build on materials from an integrated health promotion

program for seniors, the Living Well Program, that was developed and tested by the CHAPS team. The Bone Builder’s osteoporosis prevention project was also initiated in 1999 under the CHAPS umbrella in Pima County.

### **Santa Cruz County—Border Community Diabetes Prevention**

The CHAPS project in this United States–Mexico border region community focuses on developing local leadership for the health promotion program targeting chronic disease prevention and health promotion efforts. The Arizona Cooperative Extension leadership training program is being implemented to help local professionals in health-related fields develop their leadership skills. The osteoporosis prevention program based on the Bone Builder’s model was also launched in 1999; the Border Health Strategic Initiative, focusing on the prevention of diabetes, was initiated in the fall of 2000 and has become the major CHAPS project in this community.

## Evaluation

Each community project incorporated evaluation components that were summarized in the annual progress report for each county partnership (<http://ag.arizona.edu/NSC/new/chaps.htm>). Since change often occurs slowly with interactions of policy, environmental factors, and community awareness (Kreuter, Lexin, and Young 2000), evaluation guidelines typically focused on assessments of short-term outcomes, such as implementation of common principles to promote quality, effectiveness, and potential for growth. Achievements that satisfied these guidelines in a variety of creative ways for each of the community projects included:

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- Use of community data to document community needs and change. Archival, epidemiological data and community health surveys were used by county CHAPS teams to build projects that assessed and met community needs.
- Implementation of standards for academic evaluation of community-based field projects. For example, the Yuma County project grew from needs identified by the local community health survey with intervention developed based on advice of CHAPS project directors using the health behavior stages of the change model (Prochaska, Redding, and Evers 1997).
- Development of a broader base of support for expansion and sustainability. All projects built a support system with seed funding and resources from CALS and COPH, community resources and in-kind contributions, and grants from foundations and organizations. For example, the Maricopa County Bone Builder’s project initially developed using CALS and COPH seed resources to obtain a grant from a local foundation. These funds and materials were then leveraged, with the help of a statewide osteoporosis coalition and state legislative funding, for expansion to seven additional urban and rural counties throughout the state. The CHAPS infrastructure also played an important role in the acquisition of federal funding to initiate diabetes prevention and control programs in Yuma and Santa Cruz counties through the Border Health Strategic Initiative.

## Key Findings

The primary goal of this CHAPS initiative is that the facilitated partnerships which include community task forces and organizations, University faculty, staff and students remain ongoing. Many of the research and community projects are midstream. Some of the outcomes include:

- CHAPS partnerships have remained active in all three initial counties and expanded into a fourth county;
- Faculty from the two colleges at the University of Arizona have remained with the initiative and collected pilot data to develop funding opportunities and faculty development;
- Programs developed in one county used the CHAPS network to expand into other counties;
- CHAPS team members have been asked by community partners to serve on other community-identified health programs;
- Graduate and undergraduate students have participated in either research or service learning opportunities.

## Barriers to Initiative Success

Major barriers to the success of this initiative are related, in part, to the different cultures within each college that is involved in the partnership. CALS is an established college with sustainable state, federal, and county funding for faculty. In contrast, CPH is a new college that funds faculty salaries primarily through extramural grants and contracts. Therefore, obtaining extramural funding for faculty salaries is of paramount importance to enable the CPH faculty to participate. Matching community health promotion needs with available funding from grants and contracts in order to obtain sustainable funding for the initiative projects sometimes presents a challenge.

Considerably greater investment of time, staff, and energy were required to become an accepted collaborator and partner when at least one of the university project directors was not a permanent resident in the retirement community involved in the partnership. Also, an additional barrier was working with regular changes in leadership in the informal unincorporated community government structure.

Publishing scholarly work is a high priority within academic environments. However, obtaining valid data for project outcomes and impacts often takes a long time when working with community health promotion projects. In addition, the research designs used



in the field settings are often non-experimental, or quasi-experimental and have small sample sizes, making publication difficult. The net effect is a limited ability to publish outcomes of the community health projects and a decrease in publication records for the faculty participating in the partnerships.

### **Factors Contributing to Initiative Success**

The successes of the initiative have been supported by several factors:

- Dedicated faculty accepted the challenge to work collaboratively to forge the infrastructure and relationships for improving community-university partnerships.
- Seed money was provided to launch pilot projects that became the basis for obtaining additional resources for fostering project growth and sustainability.
- Significant in-kind contributions were contributed by the communities in the form of volunteer service time, donated goods and services, and use of facilities.
- The four core components for CHAPS projects (co-directors, partnership with communities, research-based models, and student interactions) facilitated consistent yet unique approaches for the community-based health promotion projects.
- Co-directors for each project enhanced the university partnerships and contributions by creating closer links between the colleges. Typically the CALS team member led the community-based advisory groups and implementation of community activities. The CPH faculty led the evaluation components of the programs. Both directors helped with the development of implementation strategies and the search for funding and resources.
- A central university CHAPS facilitator provided the necessary opportunities for the CHAPS team members to communicate as a group, to share project activities, resources, and successes, to seek solutions for problems, and to provide public relations for disseminating accomplishments of the partnerships.
- Periodic group retreats and bimonthly conference phone calls ensured sufficient communication among the faculty, staff, and students who lived in diverse geographical locations throughout the state.
- Marketing brochures and a Web site were developed to promote education and public relations regarding the goals, objectives, collaborators, activities, outcomes, and impacts for CHAPS.

## Summary

The Arizona CHAPS initiative demonstrates the validity of the scholarship of community engagement by successfully connecting the resources of the university with community organizations to address pressing health problems. A key lesson learned from this CHAPS initiative model is that engaging communities and universities in symbiotic partnerships provides unique opportunities for advancing community health. Further, these partnerships work effectively when they are developed based on shared visions, goals, and funding from both the community and university partners. Success of the partnerships requires sustained administrative support and facilitation.

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Still to be addressed is the long-term sustainability of these types of partnerships and their comprehensive impact on social, economic, civic, or environmental aspects of community health promotion programs. Future objectives of this initiative include strengthening current partnerships and projects, developing new partnerships within the university and communities throughout the state, developing sustainable funding support, and evaluating long-term impacts of this type of community health advancement partnerships.

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## About the Authors

- Linda B. Houtkooper is a professor in the Department of Nutritional Science and is a special assistant to the director of Cooperative Extension in the College of Agriculture and Life Sciences at the University of Arizona. For the past 16 years she has conducted nutrition-related health promotion programs with adults and clinical research studies related to the interaction of nutrition and physical activity on bone health in women. Through the Cooperative Extension outreach education system she has developed, implemented, and evaluated nutrition and physical activity educational materials and programs that foster health promotion and disease prevention. Dr. Houtkooper has also developed and currently directs the Nutrition, Exercise, and Wellness Cooperative Extension outreach education Web site for the Department of Nutritional Sciences. Dr. Houtkooper is the facilitator

for the Community Health Advancement Partnerships (CHAPS) initiative for the University of Arizona. Dr. Houtkooper has presented lectures, workshops, and seminars at international, national, and state conferences and for University courses.

- Linda Kathryn Larkey is a research faculty member of the Arizona Cancer Center and research assistant professor at the College of Public Health, University of Arizona. Dr. Larkey is also director of the Women's Cancer Prevention Office (WCP). The WCP serves as a focal point in the Phoenix metropolitan area for research on cancer prevention, smoking cessation, and clinical trials for women. Publications primarily concern minority recruitment to clinical trials, cultural adaptations of cancer prevention methods and messages for minority women (particularly Latinas), and age and ethnic effects on osteoporosis prevention.

- Robin Harris is an assistant professor of public health in the College of Public Health at the University of Arizona. She is the director of the Masters in Public Health (M.P.H.) concentration program in epidemiology and co-director for the Pima County CHAPS program. Dr. Harris has worked in a variety of collaborative studies, focusing primarily in cancer epidemiology and development of tools for assessing health promotion and disease prevention activities.

- Sharon Hoelscher Day is on the University of Arizona Cooperative Extension faculty in Maricopa County. She has developed and implemented a variety of adult and community education programs in nutrition, health, resource management, and food safety with low-income families, volunteers, and professionals. In 1997, Ms. Day collaborated with faculty from the College of Public Health and community organizations to develop Bone Builders, an osteoporosis prevention program that trains lay peer educators to perform outreach education. Since 1998, more than 180 volunteers and staff have been trained as Bone Builders and have reached more than 40,000 people. Sharon is also a founding member of the Arizona Osteoporosis Coalition (AZOC), member of the Board of Directors, and chair of the AZOC education committee.

- Victoria Steinfeld is the Extension agent for family and consumer sciences and coordinator for community health programs for the University of Arizona Cooperative Extension in Yuma County. She has 27 years of experience in planning, implementing, and evaluating educational programs based in communities. She has extensive experience coordinating volunteers to expand program efforts and obtained Volunteer Management Certification from University of Colorado, Boulder in 1993. Most recently, she has served as the co-project director for the "Yuma on the Move" program. She also writes newspaper articles, appears on

TV news broadcasts and answers consumer phone questions about family and consumer sciences topics.

- Joel Meister is co-director of the Southwest Center for Community Health Promotion, one of the Centers for Disease Control's (CDC) prevention research centers. The Southwest Center's focus is on chronic disease prevention and community capacity-building along the U.S.-Mexico border. Dr. Meister pioneered the use of promotoras de salud, or community health workers, in Arizona and throughout the border region. As an assistant director of the Arizona Department of Health Services in the mid-1990s, he established the state's Border Health Office and initiated Arizona's first Tobacco Education and Prevention Program. Dr. Meister is currently an associate professor of health promotion sciences in the Arizona College of Public Health.

- Ralph Renger is an assistant professor in the College of Public Health at the University of Arizona. His area of specialization is program planning, implementation, and evaluation. In addition to teaching in the graduate program, he is currently responsible for the evaluation of several federal, state, local, and international initiatives. Dr. Renger worked closely with the "Yuma on the Move" task force to develop an evaluation strategy to assess the effectiveness of the media campaign for the CHAPS initiative.

- Linda Block is an assistant agent in Family and Consumer Sciences/Community Health Promotion Programs with the University of Arizona, Pima County Cooperative Extension. Her primary area of expertise is in providing educational assistance aimed at increasing the effectiveness of adults and families in solving their own problems and improving the quality of their lives. She has the responsibility for developing and conducting programs that address priority needs and help to promote, organize, and educate Extension-sponsored organizations and build coalitions with community groups. As co-director for the Pima County Community Health Advancement Partnership, she serves as a liaison between Cooperative Extension and the College of Public Health; in cooperation with local public and private organizations and groups, she works to plan and implement collaborative Community Health Programs. Prior to joining the faculty at the University of Arizona in 1997, she was personal financial manager at Davis-Monthan Air Force Base in Tucson, Arizona.

- Marilyn Johnson is the University of Arizona Cooperative Extension agent in Santa Cruz County in Health, Family and Youth Development. She is responsible for providing research-based educational assistance focusing on the strengthening of families, health education and the personal growth and development of youth. With 23 years experience in the public school system, she has developed and implemented educational programs

that address priority needs in her community. She has also facilitated training opportunities and leadership development experiences for volunteers through 4-H Youth Development programs, as well as with health, family, and other youth development programs. As the facilitator of the Border Health ¡SI! Special Action Group, she has cultivated and focused this group to address policy change to create a healthier Nogales community along the Arizona/Mexico border.

- Stuart Cohen is an educational psychologist by training. He holds the Canyon Ranch Endowed Chair and is a professor in the College of Public Health at the University of Arizona. For the past 23 years, Dr. Cohen has worked with a wide variety of community-based organizations on ways to improve health promotion and disease prevention. These projects have involved such issues as: increasing physical activity by sedentary adults; improving the quality of diabetes care and self-management for minority populations; increasing the percentage of age-eligible adults who receive recommended cancer screening; fostering adherence to guidelines for well-child visits and services that primary care clinicians provide to young children from indigent families; and identifying effective and practical methods that physicians and dentists can use in helping their patients quit smoking. He is currently the principal investigator of the Border Health Strategic Initiative. Border Health ¡SI! is a community-based, comprehensive approach to diabetes prevention and control targeting a high-risk, predominantly Hispanic population on the Arizona/Mexico border.