

STEPS TO A HEALTHIER ARIZONA INITIATIVE

September 22, 2003—September 21, 2008

FINAL EVALUATION REPORT



*Cochise, Santa Cruz, and Yuma Counties
and the Tohono O'odham Nation*

Submitted by:

**University of Arizona
Mel and Enid Zuckerman College Of Public Health**

Chris Davidson, BS
Rebecca Drummond, MA
Maia Ingram, MPH
Samantha Sabo, MPH
Lisa Staten, PhD

**Arizona Department of Health Services
Office of Epidemiology**

Kai-Ning Khor, MPH



Mel and Enid Zuckerman
College of Public Health

CANYON RANCH CENTER FOR
PREVENTION AND HEALTH PROMOTION



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Introduction

The national Steps to a Healthier U.S. Initiative, funded by the Centers for Disease Control and Prevention (CDC), sought to help Americans live longer, better, and healthier lives by reducing the burden of diabetes, overweight, obesity, and asthma by addressing three related risk factors: physical inactivity, poor nutrition, and tobacco use.

This report is a culmination of the efforts undertaken over the course of five years in four communities that border the state of Sonora, Mexico: Cochise, Santa Cruz and Yuma Counties and the Tohono O’odham Nation. The Tohono O’odham Nation expands across three counties. In collaboration with the Arizona Department of Health Services (ADHS) and the Arizona Department of Education (ADE) and with technical assistance from the University of Arizona Mel and Enid Zuckerman of Public Health (MEZCOPH), Steps partners relied upon evidence based strategies as well as community expertise to define and refine interventions that would be effective in their communities. The Steps interventions described in this report targeted individual behavior within the context of social interactions with family members and peers. Interventions also sought to improve the health of the environment in which people interact, such as work or school. Steps partners also sought to bring community stakeholders to focus on policy development that encourages healthy behavior, such as providing local infrastructure for physical activity, and increasing healthy choices for school lunch.

Map 1: Arizona



Map 2: U.S– Mexico Sister Cities



Introduction

Communities and Partnerships

The Arizona Steps communities, coordinating agencies, and local subcontractors consisted of:

Cochise County

Coordinating Agency: Cochise County Health Department

Subcontractors / Partners:

Bella Vista Elementary School
Catholic Community Services
Chiricahua Community Health Center
Cochise College
Colonel Smith Middle School
Cooperative Extension, University of Arizona

Douglas Unified School District
Northern Cochise Community Hospital
Sierra Vista Regional Health Center
Canyon Ranch Center for Prevention and Health Promotion, a CDC Prevention Research Center of the University of Arizona

Santa Cruz County

Coordinating Agency: Mariposa Community Health Center

Subcontractors / Partners:

Carondelet Health Network
Leopold Consulting Inc.
Movement with Meaning: Fifty +
Nogales Unified School District
Native Seeds Search

Santa Cruz Valley Unified School District
Sharon Scofield Training
South East Area Health Education Center (SEAHEC)
St. Elizabeth's of Hungary Clinic

Tohono O'odham Nation

Coordinating Agency: Tohono O'odham Department of Health and Human Services / Division of Health Promotion

Subcontractors / Partners: Future Boys and Girls Club of Sells
Tohono O'odham Community Action
Dr. Lubb Dubb Youth Running Program

Yuma County

Coordinating Agency: Yuma County Cooperative Extension

Subcontractors / Partners: Campesinos Sin Fronteras
Regional Center for Border Health, Inc.
Yuma County Public Health Services District



Introduction

Communities and Partnerships: Cochise County

Cochise County is large and diverse with 6,215 square miles of land, 126,160 people, and approximately 28 communities including Benson, Bisbee, Douglas, Sierra Vista, Tombstone and Willcox. Surrounding these communities is stunning and mountainous desert geography, a draw for outdoor lovers. The major industries in Cochise County include farming, ranching, tourism and the military.

The city of Douglas has the largest Border Patrol facility in the country. While manufacturing, wholesale, and retail trade are large employers in the county, agriculture and livestock are primary industries in the Cochise County economy. More recent diversification of agriculture



The city of Douglas has the largest Border Patrol facility in Arizona.

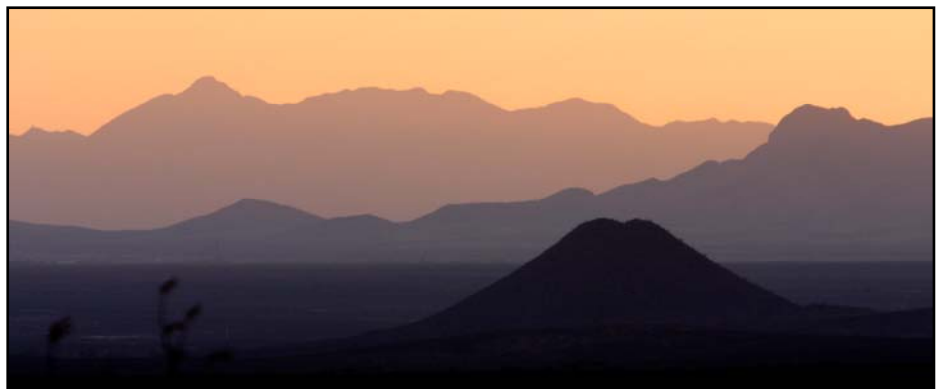
in Cochise County has resulted in the replacement of cotton, wheat, corn and other grains with apples, peaches, cherries, grapes, pistachios, pecans, lettuce, chili, and other vegetables. The area has a multitude of U-pick vegetable farms and orchards, including several organic farms. Greenhouse tomato and cucumber operations have also been initiated in recent years.



Stunning desert sunsets

Based on 2003 population estimates, 27.5% of residents are Hispanic. With an annual median income of \$34,200, 40.8% of residents live below the 200% federal poverty line. Almost one-fifth of residents (17.3%) do not have health insurance and 20.4% are on Arizona Health Care Cost Containment System. Many Cochise communities are Medically Underserved Areas.

In 1998, the University of Arizona and the Bi-national Technical Team Working Group estimated the prevalence rates of diabetes and abnormal blood glucose concentrations in the border community of Douglas, Arizona. Results from 901 adult subjects, of whom over 85% were Mexican Americans, indicated that 25% had random blood glucose concentrations greater than 126 mg/dl and 19% of fasting results were above normal. The diabetes prevalence rates were about 13% in those under 40 and over 22% in those 40 and older. The overall rate of 15% found in Douglas was 2.5 times that of the US and almost 4 times that of the rate in Arizona as determined by the Behavior Risk Factor Surveillance System (BRFSS). In Douglas, 74% of the study population was overweight, of which about half met the criteria for obesity; 67% were considered inactive.



Mountainous desert geography draws outdoor lovers

Introduction

Communities and Partnerships: Santa Cruz County

Santa Cruz is Arizona's smallest county, with seven distinct communities and 40,890 people. The topography is one of rolling grasslands to wooded hills and rugged mountains. The history of the region dates back to the cultures of the Apache, Yaqui and Hohokam peoples who built their communities along the Santa Cruz River, Sonoita Creek and Harshaw Creek, whose waters flowed year round and provided ideal sites for agriculture and ranching.

The city of Nogales is a major port of entry along the international border with Mexico where almost 50% of the nation's produce passes each year. Nogales, the Spanish word for "walnuts," is a crossroads for an ancient trade route that ran from Guaymas and Hermosillo, Mexico north into the interior of what is now the United States. Nogales, Arizona and Nogales, Sonora are really one city separated by a fence—the International Border—first erected by Nogales, Sonora to keep out the rowdy Americans. In contrast to this bustling center of commerce, the town of Patagonia is a renowned bird watching destination and Tubac is a haven for painters, potters, sculptors and other artisans. The ranching communities of Sonoita and Elgin are also home to local wineries.



Crosses mounted at the Nogales port of entry mourn 206 migrants who died this year crossing the Arizona-Sonora Border

The majority of Santa Cruz residents (84.5%) are Hispanic. With an annual median income of \$31,100, 54.3% of residents live below the 200% federal poverty line and 30.4% are on the Arizona Health Care Cost Containment System. Unemployment is an issue, with 15.3% of Santa Cruz residents being unemployed. Among those over 25 years of age, 39.3% have graduated high school. Nogales and Patagonia are both designated as a Medically Underserved Areas and Primary Care Provider Shortage Areas.

Diabetes has been documented as a major concern for Santa Cruz County. In 2001, *Proyecto VER* (Vision Evaluation and Research) reported the results of a population-based study of 4,774 residents of the Hispanic communities of

Nogales and Tucson, Arizona, designed in part to determine the prevalence rate of diabetic retinopathy in the population with diabetes. The prevalence rate of diabetes in the Hispanic community (individuals 40 years of age) was 22%. The prevalence rate of diabetic retinopathy (DR) was 48%. Asthma is also a major concern due to environmental factors such as the level of traffic from the U.S.-Mexico Border crossing, unpaved roads, and erosion from development.

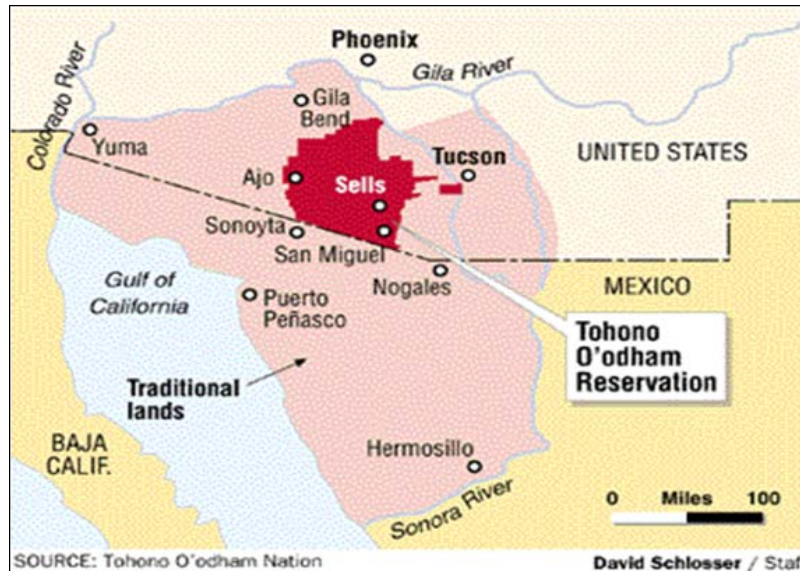


Santa Cruz County is characterized by rolling grasslands, wooded hills and rugged mountains

Introduction

Communities and Partnerships: Tohono O'odham Nation

Historically, traditional O'odham lands extended both north and south of today's U.S.-Mexico border. Today, A sovereign nation, the Tohono O'odham Nation is organized into 11 districts, covering 4,453 square miles. It is the third-largest Indian reservation in area in the United States. Its administrative center is the town of Sells. There are approximately 24,000 tribal members, and over 18,000 live on the Nation.



For the last 10 years, the Tohono O'odham Nation has gained most of its income from its three Desert Diamond casinos. Revenue from the casinos has provided important developments, such as the Tribe's first fire department; but the casinos cannot cover tribal members' numerous basic needs. Housing, emergency services, medical, and educational needs require expensive infrastructure, including transportation, personnel, education, and technology. The geographical isolation of the Nation has always been a challenge to its economic development. The Nation is governed by a Council and Chairperson, who are elected by eligible adult members of the Nation, under a complex formula intended to insure that the rights of small O'odham communities are protected, as well as the interests of the larger communities and families.

The proximity of the U.S.-Mexico border incurs further costs to the tribal government. Many of the thousands of people crossing the Sonoran desert to work in U.S. agriculture or to smuggle controlled substances seek emergency assistance from the Tohono O'odham police when they become dehydrated or get stranded. On the ground, Border Patrol emergency rescue and tribal EMT coordinate and communicate. The tribe and the State of Arizona pay a large proportion of the bills for border-related law enforcement and emergency services. The governor of Arizona, and Tohono O'odham government leaders have repeatedly requested that the Federal government repay the state and the tribe for the costs of border-related emergencies. It is said that reimbursement could significantly help tribal members.*

(*Summary derived from www.wikipedia.com)

Introduction

Communities and Partnerships: Yuma County

Yuma County is large with 5,522 square miles and 175,045 residents in 14 distinct communities. However, the size of the population fluctuates with the season. Agriculture is a major industry. There is a large influx of migrant farm workers during the winter growing season beginning in October. At the same time, the temperate winter climate also marks the arrival of retirees during this season. There are two military bases in this community, the US Marine Corp Air Station and US Army Yuma Proving Ground.

Agriculture is a major industry in Yuma which tops Arizona counties in agricultural sales. Lettuce is a leading Yuma crop, as well as broccoli and cantaloupe. Agriculture accounts for almost half the employment in Yuma County, particularly during harvest season. The areas south of the city of Yuma to the border are particularly dependent on agriculture. The highway from Yuma to the border slices through agricultural fields; passing by the communities of Somerton, Gadsden and San Luis. A growing number of farm workers are choosing to stay in Arizona when the growing season is over contributing to a high level of unemployment during the off-season.



Much of Yuma's landscape is dry and dusty



The population almost doubles during harvest season, which also is a time when many out of state visitors "winter" in Yuma.

More than half of Yuma residents are of Hispanic origin (56.1%) who live mostly in the Southern region of the county. Yuma is also home to the Cocopah and Quechan Tribes. With an annual median income of \$34,300, 46.3% of residents live below the 200% poverty line. Many of the county's census tracts are designated as Medically Underserved Areas (MUAs). Of those people over 25 years of age, 34.2% have graduated high school. According to 2000 U.S. Census figures, 45% of the total population self-identified specifically as Mexican, 76% were native to the United States, and 24% were foreign born. Seventeen percent were non-citizens, and 8% entered the U.S. between 1990 and 2000.

A community-academic partnership, the Yuma County Community Health Data System (YCHDS) reports that approximately 7% of children in the county suffer from asthma and that asthma is most prevalent among children 5 to 9 years of age. African American children experience the highest rate of asthma among ethnic groups. The YCHDS also reports that in any given year, 2,800 (or 6.5%) of Yuma children are treated for asthma. Children with asthma are more likely to access the emergency department than children without asthma. Approximately 45% of children with chronic asthma receive emergency care and 13-19% are hospitalized annually.

A Review of the Literature and Evidence Based Strategies: Asthma

Asthma

Asthma is the most prevalent chronic disease affecting U.S. children (ALA, 2002) and is on the rise (MMWR, 2000), especially among minority populations. Approximately 12% of children under age 18 have been diagnosed with asthma (NCHS, 2004), and hospitalization for asthma accounted for 7.4% of all admissions among this age group (Owens, et al., 2003). Asthma symptoms vary from very mild, occurring only during vigorous exercise, to very severe in which some lifestyle restriction occurs. Symptoms can include shortness of breath, cough, wheezing, and chest pain or tightness. There are a variety of triggers such as allergens (e.g., pollen, dust mites, animal dander, etc.), infections, exercise, changes in the weather, and exposure to airway irritants (e.g., tobacco smoke). Some people have mild asthma, while others have severe and life-threatening attacks (Cairns, 2006). Asthma is a major cause of school absenteeism (CDC, 2005) and academic performance is also affected by lost school time due to doctors' visits, lack of sleep due to night time symptoms, and side effects of some medications (NEAHIN, 2005).

Although asthma is a manageable disease, children with asthma are not receiving the help they need. Data show that among children and adults with persistent asthma, approximately 29% do not receive appropriate medications (NCQA, 2005), and those with medication often use the medication incorrectly (Finkelstein, 2002). Asthma is also affected by racial and ethnic disparities. Hispanic children with similar demographics have more severe asthma and are less likely to use controller medications (Lieu et al., 2002).

The Arizona Asthma Coalition monitors asthma related indicators for strategic planning. In 2004, approximately 611,461 people had asthma. On average, 80 individuals die each year due to asthma. There are over 20,000 hospitalizations due to asthma each year, which affects quality of life and incurs costs of over \$45 million.

Border communities are at risk for the environmental triggers related to asthma due to rapid industrialization, prevalence of unpaved roads, commercial traffic at border crossings, and exposure to pesticides. Burning landfills have also been problematic across the sister communities along the border. Children and those with weak respiratory systems are particularly at risk for experiencing asthma symptoms due to these environmental concerns. An ongoing study of asthma in Yuma County revealed that children with asthma are more likely to be hospitalized or visit the emergency room than children without asthma in any given year. In Yuma, approximately 40-45% of children with chronic asthma receive emergency care and 13-19% are hospitalized (Rimsza, et al., 2005).

Asthma goals for Healthy People 2010 aim to reduce the number of deaths, hospitalizations and emergency room visits due to asthma (CDC, 2005). Successful asthma management includes the following components:

1. Reducing or controlling exposure to environmental triggers.
2. Objective monitoring of the condition by patient and provider.
3. Taking appropriate medications as indicated.
4. Active involvement of the patient (and patient family) in managing the disease.

Introduction

A Review of the Literature and Evidence Based Strategies: Asthma

Asthma continued...

A review of the literature conducted by Allies Against Asthma revealed several aspects of asthma program strategies that contribute to positive results, including:

1. Work with healthcare providers.
2. Have close ties with the target community.
3. Collaborate with other agencies or institutions.
4. Follow established steps of program development in order to meet the needs of the community.
5. Tailor services to meet the needs of individual participants, particularly with sensitivity to environmental triggers (Asthma Health Outcomes Project, 2006).

Asthma Camp is one strategy currently being implemented by Steps partners in Yuma County, Santa Cruz County, and the Tohono O'Odham Nation. Local asthma camps were identified as a means to ease the fears of parents who were hesitant to send their child to the only camp in the state which is five hours away. Studies on asthma camp show a moderate to high level of increased parent and child asthma knowledge, self efficacy in asthma management, and improved pulmonary function. Asthma camps have been shown to decrease child anxiety, school absence, emergency room visits, and hospitalizations. A recent qualitative study conducted by the Consortium for Asthma Camps found benefits for children with asthma to include:

- Feeling of normalcy among campers.
- Opportunity for intensive asthma education.
- Opportunity for a total camp experience.
- Independence from their parents/primary care giver.
- Opportunity for kids to be kids.
- Opportunity to build the child's socialization skills, self-confidence, and self-esteem.

For more information about asthma camps see the Consortium for Children's Asthma camps at: www.asthmacamps.org.

A Review of the Literature and Evidence Based Strategies: Diabetes

Diabetes

Diabetes is a serious chronic illness that affects a growing number of people in the United States every year. As the 5th deadliest disease in the nation, diabetes can lead to serious complications such as heart disease, stroke, blindness, lower-limb amputation, kidney failure, disability, and premature death.

- **Type 1 diabetes** usually begins in childhood and occurs when the cells that produce insulin are destroyed; this type of diabetes accounts for 5% to 10% of all diagnosed cases.
- **Type 2 diabetes** occurs as the body develops insulin resistance or the pancreas loses the ability to produce insulin. Type 2 diabetes is associated with both genetic and behavioral factors including age, obesity, physical inactivity, family history of diabetes, among other factors. Certain racial and ethnic groups are particularly at risk for diabetes, including African American, Latino, American Indian, and Native Hawaiian populations. As childhood obesity has increased, the incidence of type 2 diabetes in children and young people has increased as well. A CDC study estimates that as many as one in every three children born in 2000 will develop diabetes, if serious changes do not occur in diet, weight and exercise in the American population (Narayan, Boyle, Thompson, et al., 2003).
- **Gestational diabetes** is caused by glucose intolerance that develops in some women during pregnancy. Women with gestational diabetes are at increased risk of developing type 2 diabetes after pregnancy.
- **Prediabetes** is a condition that places people at increased risk of developing diabetes. Those with prediabetes have impaired fasting glucose and/or impaired glucose tolerance. People with prediabetes can prevent or delay the onset of type 2 diabetes with weight loss and increased physical activity (Coffey, Mathews, & McDermott, 2004).

In the border region, diabetes is a serious threat, due to individual risk factors, an aging population, and the disproportionately high rate of diabetes among Mexican American and Native American populations. The U.S.-Mexico Diabetes Prevention and Control Project prevalence survey found that nearly one-third of border residents had or were at risk for diabetes (diabetes 16.1%; prediabetes 13.6%). The study also documented a high prevalence of obesity, a major risk factor for diabetes. Among residents, 37.4% were overweight and 34.7% were obese. Other studies have shown that Hispanics also suffer from greater morbidity and mortality related to diabetes and are more likely to suffer from eye, kidney and nerve disease (West, et al., 2001). Recent reports indicate that prevalence of type 2 diabetes is growing among Mexican American youth, particularly those that are overweight (Neufel, et al., 1998). Native American communities are also at great risk for diabetes, with a prevalence rate 2.2 times higher than among non-Hispanic whites. Complications from diabetes are a major cause of death among Native Americans.

Although diabetes is an incurable disease, it is both preventable and, once diagnosed, controllable. Studies have shown that diet and physical activity can decrease the prevalence of diabetes by 58% over 3 years (Diabetes Prevention Program Group, 2003). Science based interventions on prevention of diabetes are discussed in the literature review for obesity and overweight in this report. Intensive glycemic control for those with diabetes has been shown to reduce complications to the eye, kidney and nerves, as well as to reduce the risk of premature death (Coffey, Mathews, & McDermott, 2004).

A Review of the Literature and Evidence Based Strategies: Diabetes

Diabetes continued....

Issues related to diabetes quality of care include:

- Overwhelming racial disparities occur in both quality of care and prescription patterns.
- Nearly half of all people with diabetes do not receive a vaccination for influenza annually as recommended by diabetes care guidelines.
- Nearly one-third of diabetes patients do not have a retinal or foot exam annually.
- Only 37% of adults with Type 2 diabetes have HbA1C levels in the optimal range (Coffey, Mathews, & McDermott, 2004).

Santa Cruz County Steps community partner, Mariposa Community Health Center, is a member of the Diabetes Collaborative, a program from the HRSA Bureau of Primary Health Care to assist community health centers enhance their information management systems and improve the quality of care to diabetes patients. In Yuma, a community partner is instituting an internal quality of care system to enhance diabetes care.

Systematic review of effective interventions to increase glycemic (blood sugar) control conducted by the Task Force on Community Preventive Services found that Diabetes Self Management Education (DSME) is a crucial component of diabetes care and can also improve quality of life and depressive symptoms associated with diabetes. Published studies have found that DSME in community gathering places are effective in lowering glycolic hemoglobin levels by 1.9%, a change sufficient to decrease diabetes-related complications and morbidity (Norris, et al., 2002). In the Arizona Steps communities, DSME is difficult to access due to a high uninsurance rate, a dearth of certified diabetes educators, and lack of culturally competent programs. To overcome these barriers, Steps partners in Cochise and Santa Cruz Counties are implementing culturally competent DSME at community gathering places. Santa Cruz County utilizes the community health worker, or *promotora* model, to provide follow up and support, which has been shown to increase outreach and graduation rates (Corkery, et al., 1997), as well as increasing glycemic control (Ingram, Gallegos & Elenes, 2002).

A Review of the Literature and Evidence Based Strategies: Obesity

Overweight / Obesity

There is national recognition that the U.S. is facing a growing obesity epidemic, including children and adolescents. Individuals who are overweight or obese are at increased risk of diabetes, high blood pressure, high cholesterol, asthma, arthritis, heart failure, stroke, and some types of cancer. Overweight and obesity result from an energy imbalance from people consuming more calories than they expend through physical activity. Changes in physical and built environments, social and cultural environments, and commercial and media environments have all contributed to the energy imbalance and rising prevalence of obesity in the nation. Recent research has identified many factors contributing to obesity that can be considered in the development of public health interventions.

Individual behaviors

- A significant number of children under 6 years of age have grown increasingly overweight or at-risk for overweight over the past two decades (Kim, et al., 2006).
- Children who are overweight or obese during their preschool or elementary school years face an increased risk of being overweight or obese at age 12 (Nader, et al, 2006).
- Portion sizes have increased significantly over the past 20 years (Schwartz & Byrd-Bredbenner, 2006).
- Fewer than 40% of Americans currently meet federal guidelines for vegetable and fruit consumption (BRFSS, 2004).
- Consumption of sugar-sweetened beverages has been linked to weight gain among children and adults (Malik, et al 2006).
- Breast-fed children are 20-45% less likely to grow up obese than formula fed children.
- Children who are exposed to three or more hours of television a day are three times more likely to be obese than children who watch less than two hours of television a day (Lumeng, et al, 2006).

Environment

- Built environments discourage physical activity by not facilitating walking and biking.
- Most television ads aired during programming for young children promote foods high in fat, sugar and sodium (Connor, 2006).
- Many schools have reduced recess and physical education during the school day.
- Many disadvantaged communities do not have access to affordable, fresh fruits and vegetables.

Overweight/obesity and sedentary behavior is 5-10 times higher among Mexican Americans living at the border compared to the U.S. as a whole (DHHS, 1999). The border communities, and specifically rural ones, have poor infrastructure for recreational areas and parks, and even sidewalks to facilitate walking are scarce. Issues such as uneven pavement, lighting, and wild dogs challenge even the more motivated individuals. Despite being home to agricultural industry, it is difficult to access healthy foods such as fresh fruits and vegetables, which are high-priced and often unavailable. Many of the positive health messages, ubiquitous in mainstream urban areas, do not reach marginalized border populations such as farm workers.

A Review of the Literature and Evidence Based Strategies: Obesity

Overweight / Obesity continued....

Numerous studies and literature reviews are being launched in order to determine the most effective strategies for addressing obesity. It is generally agreed that public health interventions should be based upon an ecological model that address multiple levels of influence including: interpersonal factors such as knowledge and skills; intrapersonal factors such as family and peers; organizational factors such as workplace environments; community factors such as the availability of walking areas; and public policy.

The Guide to Community Prevention Services and other sources have identified evidence-based or promising strategies that address both the interpersonal and intrapersonal domains:

- Providing individually adapted health behavior change programs to help individuals incorporate physical activity and nutrition into their daily lifestyles.
- Providing worksite programs that combine nutrition and physical activity and that include various activities to promote weight loss and weight control.
- Promoting limits on the consumption of sugared beverages.
- Promoting reduction of fast food intake.
- Promoting limited television viewing time.
- Reducing exposure to advertising promoting unhealthy foods.
- Increasing non-family support for physical activity such as walking clubs and buddy systems.
- Parent training to increase nutrition and physical activity promotion in the home environment.

In the area of organizational and community infrastructure and public policy, several other areas are recommended:

- Creation and/or enhanced access to places for physical activity combined with increased informational activities.
- Regulation of advertising and promotion of foods to children.
- Improvement of walkability of neighborhoods with increased proximity to parks and stores.
- Implementation of whole school interventions to facilitate health, including:
 - ⇒ Institute recess before lunch.
 - ⇒ Provide longer and more frequent P.E. classes.
 - ⇒ Pair daily activity with healthy lifestyles instruction.
 - ⇒ Improve pedestrian safety and increasing the number of children who walk or bike to school.
 - ⇒ Increase the availability of healthy food options in the schools.
 - ⇒ Limit availability of high sugar drinks.

Arizona Steps partners are implementing science based interventions across the spectrum from individual to environment change. In Santa Cruz County, examples of their efforts include a family-based approach to weight reduction among obese youth, involvement of the community in a walkable community campaign to facilitate physical activity, and engagement of community members in the process of developing and implementing community advocacy projects.

Evaluation Methodology

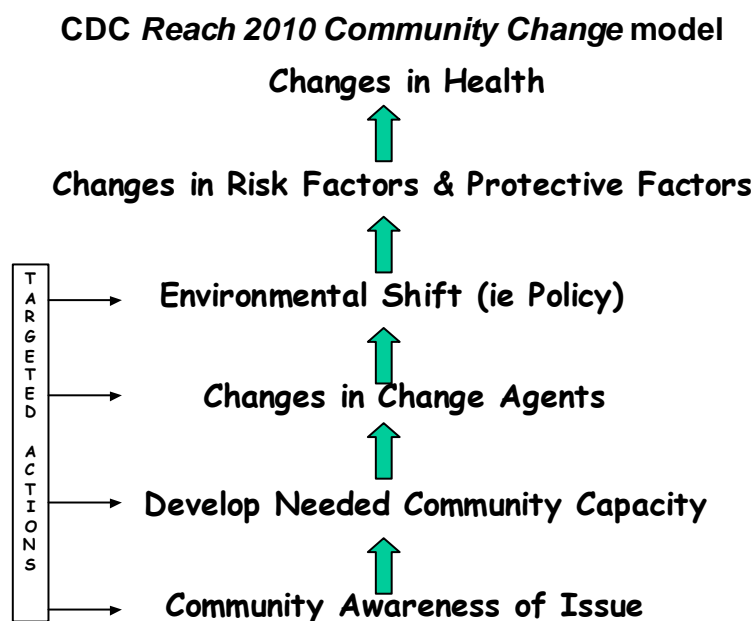
Theoretical Framework and Cross Community Objectives

Conducting meaningful program evaluation of the numerous Arizona Steps interventions across the four communities is a challenging but essential element of this project. Arizona Steps is using the participatory model of evaluation, in which stakeholders are involved in each phase of process, ensuring a continuous exchange of knowledge, skills, and resources. Evaluation becomes a tool of program development, encouraging partners to concretely define desired outcomes of the program, design strategies to meet these outcomes, collect the necessary information, and integrate feedback into program strategies.

Arizona Steps evaluation is further enhanced by the collaboration between the Arizona Department of Health Services Epidemiology Department, the Arizona Department of Education, and the University of Arizona Zuckerman College of Public Health, which enables the Arizona Steps team to integrate specific Steps program evaluation activities with population-based surveillance. By couching the successes of Steps interventions within the broader status of the community, Steps partners will be encouraged to focus on strategies that will progress toward long-term outcomes.

Theoretical Framework

The evaluation of Arizona Steps programs is influenced by three conceptual models: 1) the CDC REACH 2010 Community Change Model (Gerberding, 2004); 2) the Border Health Strategic Initiative Conceptual Framework (Cohen & Ingram, 2005); and 3) the Social Ecological Model (McLeroy, et al, 1988), as set forth by the National Steps evaluation.



Evaluation Methodology

Theoretical Framework and Cross Community Objectives

The CDC Reach 2010 Community Change model (Gerberding, 2004) is shown on the previous page. The process of producing change in the community is incremental and gradual. Arizona Steps Community Action Plans outline the various actions that will simultaneously target community awareness, community capacity, change agents and policy development.

The Border Health Strategic Initiative Conceptual Framework is a comprehensive model for diabetes prevention and control that laid the groundwork for Arizona Steps. This model is useful in providing a structure for evaluation in which the individual exists within and interacts with multiple domains including patient, provider, community, school, and environment/policy. Correspondingly, the Ecological Model recognizes the reciprocal influence of interpersonal, intrapersonal, organization, community/media, and environment/public policy domains on healthy behavior and thus emphasizes interventions that address each domain.

To create a comprehensive approach to support behavior change across these domains, Arizona Steps partners worked collaboratively to create cross community objectives for each disease area, by domain. Strategies and the evaluation of these strategies are targeted within each domain.

Asthma

CROSS-COMMUNITY OBJECTIVE: To decrease the number of acute episodes and emergency room visits due to asthma.	
Patient/Family (intra, inter-personal)	Reduce frequency and severity of asthmatic episodes through increased decision-making skills, self-management practices and appropriate use of asthma medication.
Providers (Organization)	Increase capacity of providers to screen, diagnose, treat, and refer patients with asthma according to NIH Asthma Guidelines.
Schools (Organization)	Decrease the incidence of asthmatic episodes of students by increasing capacity of school personnel to respond appropriately, and developing school policies and programs that reduce asthma triggers and support self care.
Workplace (Organization)	Increase worksite knowledge about asthma, and develop and implement worksite policy that supports a healthy environment for asthmatics.
Community	Increase knowledge and behaviors related to asthma triggers in the home and community (second-hand smoke, pesticides, allergens) and increase awareness of asthma in the community.
Policy/Environment	Develop and implement policies that will help reduce environmental asthma triggers (pesticides, smoke, allergens) and improve air quality.

Evaluation Methodology

Theoretical Framework and Cross Community Objectives

Diabetes

CROSS-COMMUNITY OBJECTIVE: Increase self-management practices and glycemic control among persons diagnosed with diabetes, and develop policies that support nutrition and physical activity across multiple domains.	
Patient/Family (intra, inter-personal)	Improve glycemic control through improved self-management practices and family support.
Providers (organization)	Increase capacity of providers to screen, diagnose, treat and refer patients with diabetes.
Schools (organization)	Improve school nutrition, physical activity and diabetes awareness through increased capacity of school personnel, student programs, and development of related policies.
Workplace (organization)	Increase opportunity for employees with DM to follow self-management practices at work through increased availability of healthy foods and opportunities to engage in physical activity.
Community (organization)	Increase identification of diabetes and support self-management behaviors by conducting community-based DM screening and increasing community awareness of diabetes self-care.
Policy/Environment	Develop and implement policies that support self-management behaviors across multiple domains.

Obesity

CROSS-COMMUNITY OBJECTIVE: Decrease obesity through increased community awareness, increased nutrition and physical activity opportunities and the development of policies that support nutrition and physical activity across multiple domains.	
Patient/ Family (intra, inter-personal)	Decrease the risk factors for obesity through clinical care, family interventions, nutrition education, and physical activity opportunities.
Providers (organization)	Build capacity of providers to screen, diagnose, treat and refer overweight/obese patients.
Schools (organization)	Improve school nutrition and physical activity through increased capacity of school personnel, student programs, and the development of related policies.
Workplace (organization)	Increase worksite awareness of the benefits of nutrition and physical activity, and availability of healthy foods and physical activity opportunities in the workplace.
Community (organization)	Reduce sedentary behaviors and improve nutritional intake through increased community awareness, nutrition education, and physical activity opportunities.
Policy/Environment	Develop and implement policies that will increase opportunities for improved nutrition and physical activity.

Evaluation Methodology

Program Outcomes and Data Sources

The responsibility of program evaluation is to measure progress towards project objectives within each domain and to document short-term and intermediate outcomes.

Short-term outcomes

Short-term outcomes include the extent to which Steps partners are able to reach the intended audience, changes in knowledge and attitudes and short-term system changes, such as referral patterns, that are intended to impact intermediate and long-term health outcomes. Process outcomes which include participation or exposure to Steps programs and outputs such as the development of new materials are also included under short-term outcomes

Intermediate Outcomes

Intermediate outcomes document further progress toward Arizona Steps goals and objectives such as behavior change, changes in health status, and policy or environmental changes. These are measured through pre/post questionnaires, qualitative data gathering, program documentation, and changes in health status among participants.

Long-term outcomes

Arizona Steps hopes to see progress toward long-term outcomes during the course of the 5-year project. Long-term outcomes are being documented through Arizona surveillance activity, including the Behavioral Risk Factor Surveillance System (BRFSS) and the Youth Risk Behavior Survey (YRBS).

The BRFSS is a random digit dial telephone survey conducted by the Arizona Department of Health Services with the assistance of the Centers for Disease Control and Prevention designed to measure risk behaviors on a state level. The primary focus of the survey is on behaviors that are linked with leading causes of death, including physical activity, nutrition, and smoking. Additional BRFSS modules related to asthma, diabetes and obesity behaviors were incorporated into these surveys. For the purposes of Steps evaluation, approximately 500 additional surveys were collected. Weighted BRFSS data were collected in all three border counties in years 2004, 2005, 2006, and 2007.

The YRBS monitors priority health-risk behaviors related to Steps goals among youth and young adults, including general health status, unhealthy dietary behaviors, physical inactivity, the prevalence of overweight, and asthma. The survey is implemented by the Arizona Department of Education, and each school in the four Arizona Steps communities was offered assistance with conducting the survey. The YRBS was conducted and analyzed for the Steps communities in 2005 and 2007. Cochise County did not have weighted data in 2007, and the Tohono O'odham Nation did not have weighted data in 2005. Both Santa Cruz and Yuma Counties both have weighted data for both years.

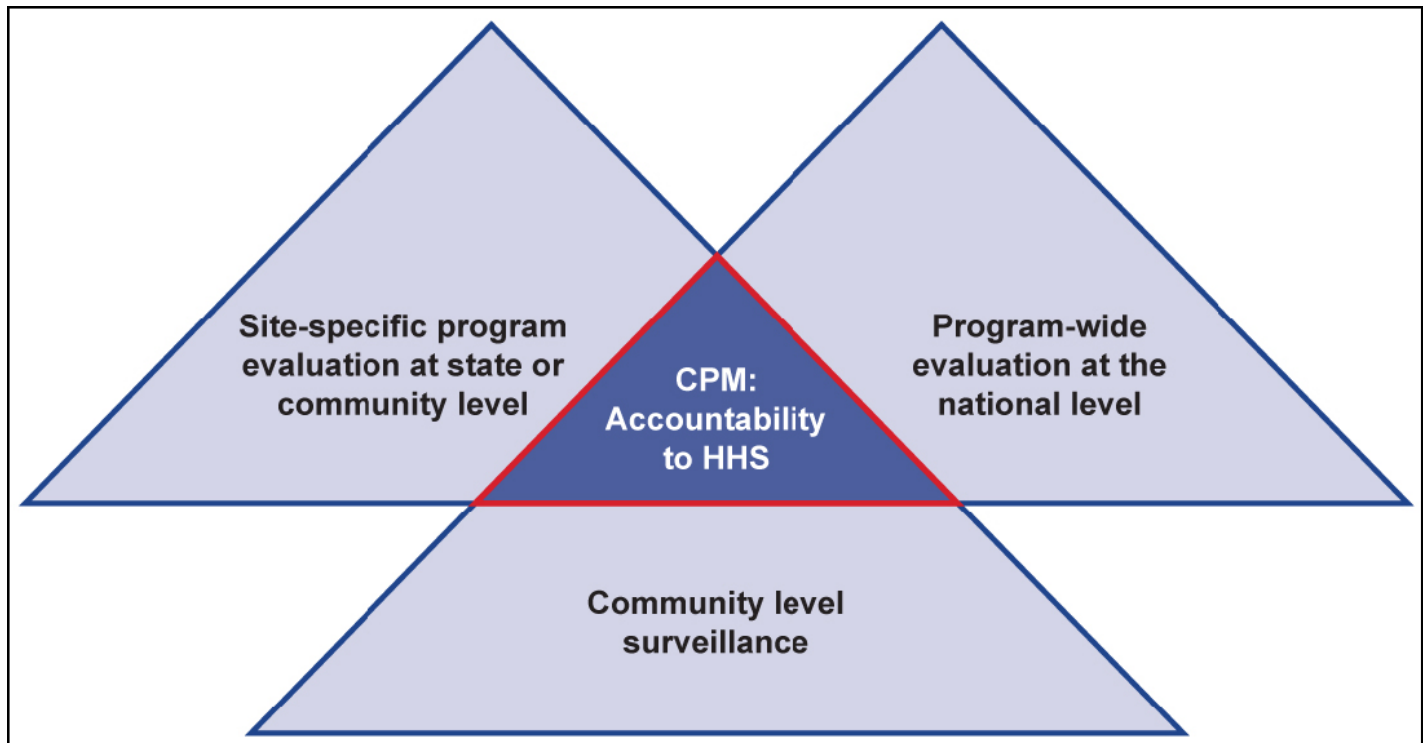
Evaluation Methodology

Steps National Core Performance Measures

The BRFSS and YRBS are also the major data sources for the National Steps to a Healthier US Core Performance Measures described below.

Just as the Arizona Steps partners are interested in documenting short and intermediate outcomes in order to continuously assess and improve our programs, we are also involved in National Steps Evaluation efforts to demonstrate to Health and Human Services that Steps to a Healthier U.S. is making progress towards the program's intended outcomes. For this purpose, the Steps Program Office and community grantees developed Core Performance Measures (CPMs), which include both implementation measures, to ensure the process through with programs are being designed and implemented, and outcome measures, focused on achieving the overall Steps Program goal of helping Americans live longer, healthier lives. The figure below illustrates the integration of Arizona Steps Program Evaluation, community-level surveillance including the BRFSS and the YRBS, and National Evaluation with ultimate accountability to Health and Human Services.

The Intersection of National CPM, Steps to a Healthier Arizona program evaluation, and Community Level Surveillance (CDC National Steps Initiative, 2006)



Evaluation Methodology

Steps National Core Performance Measures

Program Implementation Measures (IM)

Below is a list of the six Core Performance Implementation Measures. The only implementation measure identified in this report is I-6, through documentation of program participation, which is indicated on the heading of each program. Measures I-4 and I-5 are implicit in the program descriptions, but are not highlighted throughout the report.

I-1 Ensure that community objectives and activities are consistent with and supportive of state plans for the prevention and control of asthma, diabetes, obesity, and associated risk factors, but do not duplicate interventions or activities.

I-2 Expand the resources available to Steps community programs by engaging in public - private ventures and securing foundation grants, other public funding, and in-kind contributions.

I-3 Expand existing surveillance mechanisms to collect representative Behavioral Risk Factor Surveillance System (BRFSS) data for adults annually and representative data from the Youth Risk Behavior Surveillance System (YRBSS) for high school students every 2 years.

I-4 Use multiple, evidence-based public health strategies.

I-5 Improve integration of program components.

I-6 Document that intended populations participate in Steps communities' activities and interventions.

Evaluation Methodology

Steps National Core Performance Measures

Program Outcome Measures (OM)

Below is a list of the ten Steps Core Performance Outcome measures. Progress toward outcome measures is assessed on the basis of data collected on specific, observable indicators collected over the course of the 5-year project. With the exception of Supplemental O-1 and Supplemental O-2, which are being documented through community-specific indicators, all outcome measures are being monitored through BRFSS and/or YRBS data, which is collected across 44 Steps communities.

The Arizona Steps Program Outcomes for years 2004-2007 can be found in the in the State and Local Core Performance Outcomes section of this report. In addition, this report highlights local program evaluation data that demonstrates progress toward national CPMs within our *target population*, or those being directly served by Arizona Steps interventions.

Suppl. O-1 Increased knowledge and awareness about healthy behaviors such as physical activity, healthful eating, and avoiding tobacco use

Suppl. O-2 Increased knowledge about getting appropriate preventive screenings

O-1 Increased physical activity and healthful eating for children and adults

O-2 Improved access to and quality of clinical services for asthma, diabetes, and tobacco cessation

O-3 Increased identification of persons with pre-diabetes and diabetes

O-4 Improved self-management of asthma and diabetes

O-5 Measurable improvements in physical activity, healthful eating, and tobacco use

O-6 Slowed upward trend of overweight and obesity in Steps communities

O-7 Reduced hospitalizations due to asthma exacerbations and diabetes complications

O-8 Improved health-related quality of life

Steps to a Healthier Cochise County

The Steps to a Healthier Cochise County Initiative was lead by the Cochise County Health Department (CCHD)-Division of Prevention Services. Initially, the CCHD developed three health educator positions to expand Steps-related state and federal programs. During year two (2004-2005) mini-grants and a request for proposal (RFP) were established on a bi-annual basis as mechanisms to create partnerships with various health, social and educational agencies. By year three (2005-2006), seven new partners were included in the Cochise County Steps Initiative. Quarterly partners meetings focused beyond networking and program updates, to include data-driven program planning, grant writing and program evaluation workshops. In year four (2006-2007) CCHD implemented a series of evidenced –based trainings and in-service opportunities to health agencies, clinics, senior centers and school districts. By year five (2007-2008) over 25 different Cochise County health, education and social service agencies benefited from the Steps Initiative. Below are the evaluation highlights for Cochise County.

Major Highlight

Systems-Approach to Asthma Management in Cochise County

As part of the Steps Initiative, county-level data was collected for the first time through the Behavioral Risk Factor Survey and the Youth Risk Behavior Survey. Asthma prevalence among children and adults was identified as a major contributor to the burden of disease among Cochise County residents. As a result, the Cochise County Asthma Special Action Group (SAG) in coordination with the an asthma consultant indentified providers in three communities and developed and piloted the **Breathe Right Patient-Provider Asthma Management Program**.

Breathe Right targeted rural general medical providers to increase the number of non-respiratory specialists who use the National Institutes of Health (NIH) Asthma Guidelines to diagnose and manage asthma. The interactive educational Kit was piloted by medical assistants with 116 children and their caregivers. During non-emergency asthma visits with providers, Medical Assistants explained the contents of the Kit to families to demonstrate appropriate medication usage and how to determine a personal best number with a peak flow meter.

In order to identify providers with high-risk asthma patients and establish a baseline for ongoing monitoring of asthma related events and costs in the county, CCHD worked with a U of A Zuckerman College of Public Health master's student in epidemiology and the Arizona Health Care Cost Containment System (AHCCCS) to analyze ADHS hospital discharge data and AHCCCS hospital encounter data.

The CCHD developed a strategic reimbursement plan for individual and group asthma education and self management. The plan identified the Current Procedural Terminology (CPT) and Healthcare Common Procedure Coding (HCPC) as well as International Classification of Diseases (ICD-9) codes acceptable to the State Medicaid (AHCCCS) /Medicare system and private insurance companies operating in the state. This plan was presented to the Arizona Asthma Coalition and was considered an important contribution to state led asthma efforts.

Cochise County

Executive Summary

The Steps Final Evaluation report covers the process and outcomes of 15 programs and efforts of Cochise County partners. Three of these programs were evaluated using pre/post questionnaires, all of which showing some statistically significant improvements. Programs were also evaluated through program documentation, participation, and testimonials from personnel and participants. Below is a summary of evaluation highlights in Santa Cruz County, by domain or intervention level:

Patient /Family

Patient-centered interventions were targeted by two major medical centers and the Cochise County Health Department-Division of Prevention Services. The **Sierra Vista Regional Medical Center (SVRMC) – Diabetes Education Outreach Center** offered an evidence-based, 5-week Diabetes Self Management Training program to over 163 diabetics and caregivers. Classes and individual counseling were offered by a team of two certified diabetes educators and one registered dietician. This program conducted on-going behavioral and clinical evaluation. Program graduates significantly increased their ability to follow a diabetic diet and check their feet regularly for diabetes complications. Graduates also significantly increased their knowledge about what an hemoglobin A1c (HbA1c) test is. Average HbA1c levels among all graduates decreased by 6% at 3 month post graduation and HbA1c levels among high risk diabetics with a HbA1c greater than 8 also decreased. SVRMC also received a mini-grant to target nutrition education and physical activity among adolescents at risk for overweight. The **Smart Teen Eating Program (Steps)** provided bi-monthly group education to an average of 15 area teens.

Cochise County Health Department diabetes health educator implemented 9-rounds of 6-week diabetes self management classes in five major Cochise County communities. The Understanding Diabetes program engaged a total of 60 diabetics and their caregivers, 60% of whom were diagnosed with diabetes, half of whom were newly diagnosed.

The **Northern Cochise Community Hospital (NCCH)** offered ongoing nutrition counseling and diabetic support groups to an average of 40 diabetic patients. Individualized nutritional counseling increased support for weekly support group participation, and improved participant's ability to manage their diet during, physical activity, changes in medications and in times of illness and stress. The overwhelming response to nutritional counseling for diabetics demonstrated to hospital administrators a need to create a part time registered dietitian position for clients. Currently, there no registered dietitians in the community and the identification of a registered dietitian with experience with diabetes willing to travel to work in a rural area has been a major challenge.

Community

Cochise County Steps partners collaborated and organized a variety of health-related events which served a population with little or no access to health care and services. Throughout the Steps Initiative, Steps partners attended 137 community outreach and health fair events and documented the participation of 9,259 adults. An estimated 20% received a paper-based or clinical screening to determine body mass index and or diabetes risk. An estimated 21% of participants were referred by health educators to their healthcare provider, 73% were referred to an existing Steps nutrition or diabetes education program and 4% of health fair participants were referred county health department health and social service programs.

Cochise County

Executive Summary

CCHD health educators incorporated evidenced-based strategies for maintained weight loss into the **Washington Dairy Council's Healthy Habits for Life** program. Calorie counting, meal and physical activity planning, shopping literacy and dietary journaling were all made part of this 6-week series. During program years 2005-2007, 172 participants from 5 cities entered the program, with 72% completing the program by attending 4 or more classes. Significant outcomes among program graduates included; decreased weekly soda consumption, increased weekly salad, fruit and vegetable intake a reduction in whole milk consumption. In one rural community, the health educator collaborated with a local women's fitness club to offer discounts in monthly membership to those women attending Healthy Habits classes. Healthy Habits was so popular among community members that CCHD optioned to disseminate the program to community and senior centers. CCHD offered 2 regional trainings with 13 area agencies from 5 communities, two agencies implemented a full round classes to 30 community residents.

In the southern border community of Douglas, the Steps Initiative enabled the part time hire of a community health worker or Promotora to coordinate walking group activities for the **University of Arizona Canyon Ranch Health Promotion and Disease Prevention Research Center Pasos Adelante** program. Pasos is a 12 week weekly program with 32 available walking opportunities. Since the hir of a part time Promotora participant attendance in these walking opportunities has increased by 600% ! Program graduates significantly improved thier mental health and although not statistically significant, participants decreased their poor physical health by one less day a month. In this same community, the **Douglas Area Food Bank** offered, 2-hour nutrition education and cooking classes at the food bank kitchen. Classes were offered to over 159 adults, many of whom depend on food bank resources.

Schools and Child Care

Three school nurses from various school districts received Steps mini-grant funding to champion health and fitness initiatives for school staff and students. Mini-grants supported school nurses to organize school health councils to conduct the School Health Index (SHI) and incorporate findings into school wellness policies. CCHD health educators worked with the Arizona Department of Education to provide regional SHI trainings and provided technical assistance to schools interested in using the SHI to develop school wellness policies. Health educators organized a county-wide **Nutrition and Physical Activity Self-Assessment for Child Care (NAP-SACC)** program training for 30 private and public childcare providers and offered technical assistance to three day care centers ready to implement nutrition and physical activity policies.

Ten schools from 6 distinct communities participated in the **Environmental Protection Agency's (EPA) Indoor Air Quality Tools for Schools** program (IAQtS), constituting one-third of Cochise County school districts! School districts developed interdisciplinary teams to address indoor air quality in schools. IAQtS identified and implemented at least two new indoor air quality policies some of which targeted bus idling, the standardization of cleaning supplies, and the relocation of parental drop-off zones to decrease car fumes.

Cochise County

Executive Summary

Provider

In addition to achievements seen in patient-provider asthma management efforts, Steps to a Healthier Cochise County recognized Community Health Workers (CHWs) as integral links to the provision of health services. To that extent, Steps partners focused on the **Community Health Worker Certificate** program offered at Cochise College. From 2004-2008, 50 community members entered the certificate program; 30% completed a 320-hour practicum experience in a community-based setting and 18% graduated as certified CHWs. To increase awareness of the CHW Model throughout the county, Cochise College formed a county-wide Social Services Advisory Board to assist the College in accurately assessing community needs, identifying essential skills needed by county agencies and provide practicum experience for CHW students. Through these efforts and collaborations with the Arizona state university system, the certificate program has transitioned to a transferable degree-seeking program in Health Services and Social Work.

Policy

Cochise County focused on policy development through the Cochise County Asthma Special Action Group (SAG) and the Willcox Special Action Group (SAG). The Asthma SAG was initiated by pulling together asthma, environmental health and tobacco programs at the CCHD. It later evolved to include a respiratory therapist, a local pediatrician, a public health graduate student and a school nurse. In addition to serving the CCHD as an advisory council for asthma programming, Asthma SAG members also represented the county at the state level by attending Arizona State Asthma Coalition.

In Willcox, the University of Arizona Cooperative Extension initiated a coalition in a rural agricultural community that worked to raise awareness about physical activity and walkability through interactive community events like the viewing and critical reflection of the movie Super Size Me.

Diabetes Self Management Program

Core Performance Measure: I-6.1, Suppl. 0-1 and 0-2, O-1.1, O-2.1, 0-4.1, 0-4.2, 0-4.3, 0-4.4, 0-5.1, 0-6.1, 0-6.2, 0-7.3

DOMAIN

Patient / Family

HEALTH FOCUS

Diabetes

OBJECTIVE

Improve glycemic control through improved self-management practices and family support.

METHODOLOGY

Diabetes knowledge and self management indicators are measured at baseline, program completion, with the exception of hemoglobin A1C which is measured at baseline and at 90-days post program follow-up. Hypothesis testing on categorical responses was conducted using the Exact McNemar's test for proportions or the Wilcoxon sign-rank test as appropriate. Variables that were not normally distributed were treated as categorical. Continuous responses were tested with paired t-tests. The overall level of statistical significance was adjusted (Sidak corrected alpha = 0.002) to account for multiple comparisons.

MEASURES/DATA SOURCES

1. Participation
2. Pre/post questionnaire
3. Pre/post Hemoglobin A1c

PARTNER

Sierra Vista Regional Health Center (SVRHC)

Since 2004, the Sierra Vista Regional Health Center (SVRHC) has offered a Diabetes Self Management Program. The diabetes program is a five week series of 2 hour group classes targeting community members diagnosed with pre-diabetes, diabetes, gestational and type 2 diabetes and members of their support systems. The Program utilizes evidenced-based curricula, primarily from the Michigan Diabetes Research and Training Center, the American Diabetes Association, the Center for Disease Control and the National Diabetes International Clearing house. Classes and individual counseling are offered by a team of two certified diabetes educators and one registered dietician. Morning and evening diabetes self management education sessions cover the following areas:

- Nutrition, Exercise and Medications
- Monitoring blood sugar, feet, skin and dental care
- Prevention, detections and treatment of complications
- Coping with diabetes and goal setting
- Health care systems and community resource utilization

The program offers several opportunities for participants to work one-on-one with program staff to learn individual glucose monitoring, meal planning and medication management. Individualized education and support is extremely beneficial in trouble shooting diabetes management difficulties, especially with newly diagnosed participants and patients that have other co-morbidities besides diabetes. Participants are also encouraged to talk with their medical provider about concepts they learn in the class. Empowered participants know what questions to ask their provider to increase the likelihood of quality care for diabetes. Participants gain knowledge about appropriate timing of preventative annual screenings, medication changes and other secondary diabetes prevention strategies. Participants are encouraged to attend all five sessions to make up missed sessions at later dates.

The diabetes program is currently investigating mechanisms for sustainability. In 2005, the program received the American Diabetes Association (ADA) Recognition for meeting the national standards for excellence in diabetes education but had to forgo the certification due to intensive reporting procedures. The program is reconsidering certification which enables the program to bill public and private insurance for diabetes classes. Currently the program is running on a half time basis and uses a sliding scale fee for interested participants. Program staff have submitted at least one grant to the Arizona Department of Health Services Diabetes program and continues to look for funds. The program continues to conduct program evaluation and maintains a database on-site.

Diabetes Patient Self Management Program

Sierra Vista Regional Medical Center

Participation

- Two-hour classes were held in the morning and during the evening every 6 weeks.
- During Steps year 2005-2007, the program reached a total of 163 participants, including diabetic and care giver participants.
- 67% of diabetic patient participants completed at least 4 of the 5 classes and are considered graduates of the program.

Participant Demographics

- Graduates average age was 64 years and ranged from 36 to 87 years.
- Graduates are predominately married (63%), white (80%) women (66%) with a high level of education.
- Hispanic participants are 14% of the total participant population of which 10% graduated.

Diabetes Patient Self Management Program Participant Demographics and Health Status

	Graduates N=106	Total N=161
Age		
Average Age in Years (SD)	64 (11.0)	63 (11.1)
Min Age - Max Age	36-87	25-87
Gender		
Male	36 (34%)	50 (31%)
Female	70 (66%)	113 (69%)
Marital Status		
Single	6 (6%)	12(8%)
Married	67 (63%)	95(60%)
Divorced	22 (21%)	37(23%)
Widowed	11(10%)	14(9%)
Ethnicity		
Anglo	80 (80%)	107 (71%)
Hispanic	10 (10%)	21 (14%)
African American	2 (2%)	5 (3%)
Asian	1 (1%)	3 (2%)
Native American	1(1%)	3 (2%)
Other	6 (6%)	0
Education		
Less than High school	3 (3%)	7 (4%)
Completed High School	24 (23%)	37 (24%)
Some College	45 (42%)	62 (39%)
Graduated from College	34 (32%)	51 (32%)

(SD) Standard Deviation



Sierra Vista Regional Medical Center Outreach Education Center is located in a community setting close to public transportation services.

Diabetes Patient Self Management Program

Sierra Vista Regional Medical Center

Health Status and Access to Health

Access to Health Care

- Program graduates utilize both public (38%) and private health insurance (50%) with a slightly higher percentage of individuals having access to private insurance.

Diabetes and Co-morbidities

- Most graduates have co-morbidities, predominately high cholesterol, high blood pressure and obesity which can complicate diabetes
- One quarter of graduates have been told by a medical provider that they have asthma
- Fewer graduates are smokers which is a major risk factor for all chronic disease, especially diabetes.

Diabetes History

- Half of all graduates have been living with diabetes for less than five years, while one third are newly diagnosed with diabetes.
- Fewer graduates are pre-diabetics

Prevention Education

- More than one-third of all participants have had some type of diabetes education.
- Graduates have received diabetes specific education from a dietician, literature or brochures and medical providers 20%, 15% and 14% respectively.
- Fewer participants get their diabetes education from the internet.

Diabetes Patient Self Management Program Health Status and Access to Care		
	Graduates	Total Participants
Health Insurance Type	N= 97	N=147
AHCCCS/Medicare	37 (38%)	55 (37%)
Private	49 (50%)	71 (48%)
Other	11 (11%)	21 (14%)
Health Status		
Asthma	22 (27%)	29 (25%)
High cholesterol	70 (74%)	104 (73%)
High blood pressure	80 (81%)	108 (74%)
Obesity	48 (70%)	63 (69%)
Current Smoker	11 (10%)	----
Years with Diabetes	N=103	N=152
Less than 1 year	33(32%)	47 (31%)
1-5 Years	21 (20%)	32 (21%)
6-10 Years	9 (9%)	13 (9%)
More than 10 Years	19 (18%)	23 (15%)
Pre- Diabetes	5 (5%)	6 (4%)
Does not have Diabetes	12 (12%)	20(13%)
Does not know	4 (4%)	11 (7%)
Prevention Education	N=106	N=158
Previous Diabetes Education	37 (35%)	54 (34%)
Doctor/Medical Provider	15 (14%)	21 (13%)
Nutrition/Dietician	21 (20%)	33 (21%)
Literature Only	16 (15%)	19 (12%)
Diabetes Classes	14 (13%)	19 (12%)
Hospital Educator	6 (6%)	14 (9%)
Internet Only	4 (4%)	4 (3%)

Information is Power for Diabetic Patients

"This class is the most informative class I've taken."

"This class has helped me understand better what I need to do to keep my blood sugar level down."

" This was a very comprehensive and easy to understand course of instruction. I've learned a lot and have adapted what I've learned."

"Great class! All doctors should prescribe this class as soon as diagnosis."

Diabetes Patient Self Management Program

Sierra Vista Regional Medical Center

Diabetes Self Management

- Graduates **significantly increased** their ability to follow a diabetic diet and check their feet regularly for diabetes complications.
- Graduates also **significantly increased** their knowledge about what an HbA1c test is.
- Although not significant, graduates increase their knowledge of what their own personal HbA1c.

Diabetes Clinical Measures

- Average HbA1c levels among all graduates decreased by 6% at post class.
- HbA1c levels decreased among all high risk diabetics with HbA1c greater than 8.
- HbA1c decreased among those high risk graduates with HbA1c greater than 10 at pre class.

Monitoring Blood Sugar and Feet

Graduates increased confidence in their ability to:

- Check their blood sugars with good technique (39%)*.
- Examine their feet for problems and take care of their feet properly (33%).

Diabetes and Physical Activity

- 22% (18) of graduates are more confident in doing aerobic exercises such as walking, swimming or bicycling three to four times per week and 43% (34) are more confident in taking action to prevent blood sugars from dropping when doing exercise.

Graduates also increased confidence in their ability to:

- Do gentle exercises for muscle strength and flexibility three to four times per week (9%).
- Do aerobic exercises such as walking swimming or bicycling three to four times per week (22%).
- Move their body and be active for 15 to 30 minutes, 4 to 5 times a week (15%).

* Wilcoxon Rank Test for statistical significance $P < .001$.

Diabetes Patient Self Management Program Changes in Self Management Practice Program Graduates

	Pre N=103	Post N=101
Currently Smoking	10%	10%
Monitors blood sugar at home	71%	76%
*Follow diabetes diet	41%	60%
*Check feet	60%	88%
*Know what an HbA1c is	62%	88%
Knows personal HbA1c level	57%	73%

Post test conducted on last day of class series, approximately 5-weeks from Pre Test.
* McNemar $P < .002$.

Diabetes Patient Self Management Program Changes in Hemoglobin A1c Program Graduates

	Total	Mean HbA1c Pre	Mean HbA1c Post
All Graduates	47	7.34	6.9
Hemoglobin A1c less than 8	35	6.51	6.63
Hemoglobin A1c of 8.1-9.9	7	8.68	7.58
Hemoglobin A1c ≥ 10	5	11.32	7.8

A1c test are collected at baseline and approximately 90 days post graduation.

Diabetes Patient Self Management Program

Sierra Vista Regional Medical Center

Diabetes and Nutrition

- 62% of graduates increased confidence in their ability to identify foods with carbohydrates. Only 26% (21) were highly confident at pre compared to 63% (50) at post class.*
- 39% of graduates increased confidence to eat meals every 4 to 5 hours, including breakfast everyday. Only 35% (28) were highly confident at doing these activities at pre compared to 55% (44) at post class.*
- 57% of graduates increased their level of confidence to choose appropriate foods when they have to prepare or share food with other people who do not have diabetes. Only 28% (23) were highly confident at pre compared to 57% (45) at post class.*
- 49% of graduates increased confidence in their ability to read a food label and understand the amount of carbohydrates the food has. Less than half (42%) of participants were highly confident at pre compared to 78% (60) at post class.*

Diabetes Patient Empowerment

- 33% of graduates increased their level of confidence in their ability to ask their doctor to explain medical test to them (cholesterol, blood pressure, blood glucose, A1C).
- 51% of graduates their level of confidence in their knowledge about how their diabetes medicine works and possible side effects. One quarter were highly confident compared to more than half (52%) at post class*.

* Wilcoxon Rank Test for statistical significance $P < .002$.

Diabetic Participants Talk to Their Providers about Annual Diabetes Preventative Screenings

“Excellent mechanism for increasing the how/what/why about diabetes and what you can do or try. Handout materials very informative and useful. Initial manual represents an excellent reference resource. Instructors are very helpful. Program needs to continue; should have participants come back for refresher every (couple) of years.”

“All doctors should prescribe this class as soon as diagnosis.”

“It helped me in educating myself on diabetes, I have learned to control it without medication. Well worth my time and traveling 100 miles to attend.”

“The class gave [me] enough information to talk intelligently to medical doctor about sugar/glucose. As a result I requested an A1C test and found out my husband is now officially diabetic and not pre-diabetic.”

Understanding Diabetes

National Core Performance Measure: I.6.1

DOMAIN

Community

HEALTH FOCUS

Diabetes, Obesity

OBJECTIVES

Diabetes: Increase identification of diabetes and support self-management behaviors by conducting community-based diabetes screening and increasing community awareness of diabetes self-care

Obesity: Reduce sedentary behaviors and improve nutritional intake through increased community awareness, nutrition education, and physical activity opportunities.

METHODOLOGY

Evaluation is descriptive and documents participation and completion of diabetes program. Due to inconsistent attendance and low program completion among participants pre/post outcomes evaluation was not conducted and only demographics and health status are reported.

MEASURES/DATA SOURCES

1. Participation
2. Demographics

PARTNER

Cochise County Health Department

In 2004, Steps lead agency offered diabetes awareness presentations to community members. In 2005, these diabetes presentations were modified into a 6-week series of 2-hour sessions for diabetics, people at risk for diabetes and family members interested in learning more about diabetes. The American Diabetes Association, "Life With Diabetes, 3rd Edition" curriculum was implemented to assist participants in gaining knowledge about diabetes and its risk factors, complications associated with diabetes, nutrition and physical activity and foot care. Diabetes health educator worked with the county health registered public health nurse to provide clinical information on the first and fifth class and to provide information specific to foot care.

In 2006, the diabetes program was adapted to target emergency and fire professionals who often encounter diabetic patients in emergency situations. Due to the low attendance and graduation rates diabetes classes were further modified to be used with general community members who may or may not have diabetes and less with diabetic patients.

In 2007, CCHD gained new leadership and the Steps program was evaluated and transformed. The County transitioned itself from delivering one-on-one and group education in community settings and health fairs to a systematic approach toward county level wellness. CCHD downsized its internal staff and re-distributed Steps diabetes resources to established diabetes programs connected to a clinical component.

During the Steps initiative, Understanding Diabetes implemented 9-rounds of 6-week classes in the five major Cochise County communities. A total of 60 participants initiated the diabetes education classes and 32 (53%) graduated by completing 4 of the 6 classes.



Graduation Day !

Understanding Diabetes

Cochise County Health Department

Participant Demographics: 2005-2006

- Participants in this program are primarily Anglo females with a high level of education and an average of 64 years of age.
- 50% of participants have publicly funded health care, while 12% have no health insurance.
- 45% of participants reported to have been diagnosed with high cholesterol and 70% with high blood pressure, while 21% reported having asthma.

Understanding Diabetes Insurance and Health Status	
Insurance (N=50)	
None	6 (12%)
Public	25 (50%)
Private	12 (24%)
Missing	7 (14%)
Health Status (N=33)	
Asthma	7 (21%)
High cholesterol	15 (45%)
High blood pressure	23 (70%)

Diabetes Related Characteristics

- 60% of participants are diagnosed with diabetes.
- 46% of participants with diabetes have had diabetes less than 5 years.
- 12% of mothers reported a diabetes diagnosis with a past pregnancy. This diagnosis does not discriminate between diabetes mellitus or gestational diabetes.
- 18% of mothers reported having a child over 9 pounds.

Understanding Diabetes Demographics	
Age (N=52)	
Average Age in Years (SD)	64 (11.1)
Min Max	33-88
Gender	
Male	17 (32%)
Female	36 (68%)
Marital Status (N=41)	
Married	14 (34%)
Widowed	8 (19%)
Single/Divorced/Separated	19 (46%)
Ethnicity (N=52)	
Anglo	30 (57%)
Hispanic	13 (25%)
Native American	4 (7%)
African American	4 (7%)
Education (N=46)	
Less than High school	4 (8%)
Completed High School	11 (23%)
Some College	16 (34%)
Graduated from College	15 (32%)
<i>(SD) Standard deviation</i>	

Understanding Diabetes Diabetes Related Characteristics	
Years with Diabetes (N=51)	
Do not have diabetes	21 (40%)
Less than 1 year	10 (20%)
1-5 years	13 (26%)
6-10 years	4 (8%)
More than 10 years	3 (6%)
Diabetes-related health problems	
Diabetes w/pregnancy (women w/children N=26)	3 (12%)
Unsure	10 (25%)
Babies over 9 lbs. (women w/children)	5 (18%)
Had prior diabetes education (N=33)	20 (60%)

Diabetes Support and Nutrition Counseling

Core Performance Measure: I-6.1

DOMAIN

Patient

HEALTH FOCUS

Diabetes

OBJECTIVES

Improve glycemic control through improved self-management practices and family support.

METHODOLOGY

Mini-grants are evaluated through a self administered questionnaire.

Mini grant recipients are contacted one year after receipt of mini grant funds and asked to provide information about the following aspects of their program: Participation and reach, major success, organizational change, challenges and sustainability –next steps.

MEASURES/DATA SOURCES

1. Participation
2. One year follow-up questionnaire

MINI GRANT RECIPIENT

Northern Cochise Community Hospital

In 2006, a registered dietitian specializing in diabetes offered one-on-one nutritional counseling with diabetic patients from the community of Willcox and surrounding areas. Patients from the Northern Cochise Community Hospital (NCCH) Diabetes Support Group were able to meet with a dietitian over a period of time to establish a basic understanding of how their body reacts to specific foods, medications and exercise. Many participants reported changes in food choices as well as timing of food intake and physical activity.

Participation

- 43 diabetic patients received individualized nutritional counseling.
- Age Range
 - 30-35 years: 4 (9%)
 - 60-75 years: 23 (53%)
 - 75 + years: 16 (37%)

Organizational Change

NCCH scheduled individual nutritional counseling sessions on the same day as bi-monthly Diabetes Support Group meetings. This arrangement increased consistent attendance by Support Groups members. The consistent attendance to support group meetings and overwhelming receptivity to nutritional counseling by diabetic patients has demonstrated to NCCH the need to create a part time staff position for a registered dietitian or consultant to provide one on one counseling to NCCH diabetes patients.

Challenges

There are no registered dietitians in the community and it is has proven difficult to identify a registered dietitian with the required experience with diabetes willing to drive to a rural area.

Sustainability –Next Steps

NCCH plans to sustain the initiative through researching reimbursement mechanisms for nutritional counseling for diabetics through private and public insurance.

Healthy Habits for Life

DOMAIN

Community

HEALTH FOCUS

Diabetes, Obesity

OBJECTIVES

Diabetes: Increase identification of diabetes and support self-management behaviors by conducting community-based diabetes screening and increasing community awareness of diabetes self-care.

Obesity: Reduce sedentary behaviors and improve nutritional intake through increased community awareness, nutrition education, and physical activity opportunities.

METHODOLOGY

The initial phase of this intervention was targeted education, skill building of healthy eating and regular physical activity among community members. The health educator documents participation and assists participants to complete knowledge and behavioral pre-post questionnaires. In order to disseminate the program and build public health capacity among agencies to offer ongoing classes, the health educator shifted educational classes to train-the-trainer workshops in various related curricula.

MEASURES/DATA SOURCES

Phase I: Healthy Habits

1. Participation
2. Demographics
3. Pre/post questionnaire

Phase II: Community Capacity Building

1. Participation
2. Program implementation
3. Testimonials

Core Performance Measures:

I-6.1, Suppl. O-1 and O-2, O-1.1, O-2.1, O-3.1, O-5.1, O-6.1

PARTNER

Cochise County Health Department

In Steps 2004, Cochise County health educator developed a 12 week series of nutrition classes to be piloted in a variety of community settings. Health educator offered these presentation at faith-based venues, military bases, parent and teacher meetings and local fitness clubs. Topics included:

- Why Fruits and Vegetables
- Low Fat versus Low Carbohydrates
- Shopping Healthy
- Physical Activity-How and Why
- Fitting Fitness In
- Helping my Family Eat Better

In that same year, Women's Walking Clubs were organized and piloted. Approximately, 5 group leaders were trained in leading walking groups and guiding health discussions. Over 30 women walked weekly and learned about different health issues together.

In 2005, the Washington Dairy Council's Healthy Habits for Life nutrition education curriculum was adopted due to its similarity to the topics developed in the previous year by the health educator. Healthy Habits for Life is a 6-week, 2-hour program targeted to high literacy women over 40 years in age. Interactive power-point presentations are coupled with evidenced-based strategies for maintained weight loss. Strategies include calorie counting, meal and physical activity planning, shopping literacy and dietary journaling. Information and activities are presented through a variety of group and individual activities. Take home activities encourage attendance and are followed-up in each class.

In 2007, the County Health Department shifted the program to build agency- level capacity in health promotion program delivery. The scope of the Healthy Habits group classes was transitioned to a series of regional train the trainer events targeted to health and social service agencies. Community and senior center volunteers and staff were trained in two nutrition and physical activity related curricula such as Healthy Habits and You Can Eat Better and Move More from the Steps to a Healthier Aging Initiative.

CCHD offered small stipends and technical assistance for agencies and volunteers to implement the curricula in their respective agency or senior center. CCHD is interested in providing on-going technical assistance to area agencies in health promotion and disease prevention and continues to seek public and private partnerships and funding to do so.

Healthy Habits for Life

Cochise County Health Department

Phase I: Healthy Habits Program Participation

- During Phase I (2004-2006), 152 community residents from 7 different communities attended Healthy Habits for Life classes.
- 47% of these participants graduated from Healthy Habits for Life by attending 4 of the 6 classes.

Healthy Habits for Life Phase I 2004-2006 Participation				
	2004	2005	2006	Total
Communities	NA	6	1	7
6 week rounds	Pilot	13	2	15
Participants	16	107	29	152
Graduates	NA	59 (55%)	13 (44%)	72 (47%)

Participant Demographics

- Participants in this program are primarily Anglo men and women with a high level of education and an average age of 53 years.
- 96% of participants have some sort of public or private health insurance.
- Half of all participants reported having been diagnosed with high cholesterol, 41% high blood pressure, 14% diabetes and 13% with asthma.

Healthy Habits for Life Phase I 2004-2006 Access to Health and Health Status	
Insurance	(N=70)
No	3 (4%)
Yes	67 (96%)
Health Status	(N=71)
Asthma	9 (13%)
Diabetes	10 (14%)
High cholesterol	34 (49%)
High blood pressure	29 (41%)
Smoker	2 (3%)

Healthy Habits for Life Phase I 2004-2006 Demographics N=73	
Age	
Average Age in Years (SD)	53 (13.8)
Min Max	22-88
Gender	
Male	30 (41%)
Female	40 (55%)
Ethnicity	
Anglo	43 (60%)
Hispanic	16 (22%)
Native American	2 (3%)
African American	1 (1.4%)
Education	
Less than High school	4 (6%)
Completed High School	6 (8%)
Some College	29 (40%)
Graduated from College	32 (44%)

(SD) Standard Deviation

Healthy Habits for Life

Cochise County Health Department

Changes in Knowledge about Nutrition and Physical Activity

- Program graduates increased their knowledge of:
 - the recommended daily amount of 5 fruits and vegetables for health benefit by 17%.
 - the current recommended 30 minutes a day 5 or more times a week by 4%.
- Overall, participants were very knowledgeable about the relationship between physical activity and chronic disease. There was a significant improvement in knowledge about diabetes and physical activity.

Healthy Habits for Life Phase I Knowledge and Awareness Related to Overweight		
	Pre Class Mean (SD)	Post Class Mean (SD)
Weight is considered healthy for height (N=50)	26%	38%
Recommended intake of 5 fruits and vegetables a day (<i>number indicates average weekly servings consumed</i>)	28 (40%) 4.13 (1.9)	40 (57%)* 4.73(1.6)***
Recommended physical activity (30 minutes 5 or more days / week)	48%	50%

Paired T Test P = *.05; **<.01; ***<.001

Changes in Nutrition

- Weekly soda consumption reduced by 1 can of soda per week.
- Weekly salad intake **significantly increased** by 1.5 serving per week.
- Weekly water consumption also increase by 2.5 more cups (20 ounces) per week.
- Fruit consumption **significantly increased** by 2 servings of fruit a week.
- Participants **significant increased** weekly vegetable intake.

Healthy Habits for Life Phase I Changes in Weekly Nutritional Consumption N=70		
	Pre Class Mean (SD)	Post Class Mean (SD)
Sodas (not diet)	5 (8.0)	4 (7)
Sweet drinks	1.2 (2.3)	1.5(3.6)
Natural juices	2.8 (3.3)	3.27 (3.7)
Fruit	8.5 (7.8)	10.6 (8.1)*
Salads	4.4 (3.6)	5.9 (5.4)*
Vegetables	7.8 (7)	11.2 (7.8)***

Water (8oz=1cup) 51.8 (49.5) 54.2(34.6)

Paired T Test p = *.05; **<.01; ***<.001

Milk and Oil

- Whole/2% milk consumers reduced by 8%.
- 1% and skim milk consumers increase by 9%.
- Most participants already cooked with healthier oils at intake and the use of canola oil , which is considered to be a healthier oil increased by 22% and Crisco and butter use, considered less healthy decreased by 10% and 5% respectively.

Healthy Habits for Life

Cochise County Health Department

Phase II: Community Capacity Building

Train the Trainer Participation

- 2 regional trainings were offered
- 13 area agencies from 5 communities completed the training
- Agencies included:
 - American Walking Association
 - Southeastern Arizona Health and Behavioral Services
 - Arizona Electric Power Company
 - Tombstone Senior Centers
 - Bisbee Senior Centers
 - Sierra Vista Parks and Leisure
 - Lighthouse Ministries
 - Elfrida Elementary School
 - Willcox Parks and Recreation
 - Sierra Vista Public School

Health Curricula Program Implementation and Participation

- 2 area agencies implemented a full round of classes
 - 1 Healthy Habits (9 week class)
 - 1 You Can Eat Healthy and Move More (12 week class)
- A total of 31 participants attended classes.
- 90% (25) attended at least half of all weekly classes.
- 61% (19) of participants are considered graduates by attending the majority of classes offered.

Agencies Describe Intended Target Populations

Employees
Seniors
Teachers
Stay-at-home Moms
Retirees
Parents
Students
Middle Age Adults
Youth Mentors
Senior Women

Participants Eat Better and Move More!

"I'm more active and feel better, it helps so much with my job!"

"My walking is improved"

"I make more careful decisions, choose a greater variety (of foods) and became more active with a more directed attitude.. Thank you!"

"I was made much more aware of reading labels (ugh!)"

-You Can ! Participants Testimonials

Bisbee Senior Center Experience with the You Can Program

"The overall program was successful. Some participants joined after the program began but were faithful with subsequent attendance. One couple, married for 69 years attended every class. Some of the exercises were too strenuous but they persevered as much as they could. Another lady who was using a walker attended faithfully until her doctor told her not to continue with the exercises. All participants were of course senior citizens so the "Eat Better" portion was a refresher rather than new information. Several of the participants did learn how important reading the nutrition information of the labels was. On the whole, I've heard positive feedback on the whole experience"

-You Can , Bisbee Senior Center Testimonial

Pasos Adelante Walking Program

Core Performance Measure: I-6.1,
Suppl. O-1 and O-2, O-1.3, O-2.1, O-8.1

DOMAIN

Community

HEALTH FOCUS

Diabetes & Obesity

OBJECTIVES

Diabetes: Increase identification of diabetes and support self-management behaviors by conducting community-based diabetes screening and increasing community awareness of diabetes self-care.

Obesity: Reduce sedentary behaviors and improve nutritional intake through increased community awareness, nutrition education, and physical activity opportunities.

METHODOLOGY

The objective of this intervention is education, skill building and role modeling of healthy eating and regular physical activity. *Promotoras* document participation. Pre-post questionnaires are administered by University researchers. The questionnaire consists of basic demographics, knowledge and behavior questions related to nutrition and physical activity. Demographics and participation in walking opportunities via walking group attendance are reported pre and post Steps funding .

MEASURES/DATA SOURCES

1. Participation
2. Demographics
3. Pre/post questionnaire

PARTNER

Canyon Ranch Center for Prevention and Health Promotion,
University of Arizona

Pasos Adelante is 12-week nutrition and walking club program for the prevention of chronic disease. *Pasos Adelante* is the community component of a multi-level five year Centers for Disease Control (CDC) Prevention Research Center (PRC) research project addressing chronic disease prevention at the patient, family, community and policy level. The curriculum *Pasos Adelante*, was adapted from *Your Heart, Your Life* by the National Heart Blood and Lung Institute for the *Border Health ¡SI!* project in 2001. To meet the needs of Arizona border communities, *Promotoras* or Community Health Workers from border communities were involved in the adaptation of the curriculum and piloting of the program. The curriculum is delivered in weekly, 2-hour sessions by a team of *Promotoras* in a familiar community setting.

Sessions build off each other and include :

1. Are you at risk for heart disease?
2. Be more physically active
3. Are you at risk for diabetes?
4. What you need to know about high blood pressure, salt and sodium
5. Eat less fat, saturated fat, and cholesterol
6. Maintain a healthy weight
7. Is your community healthy?
8. Glucose and sugar
9. Making eating healthy a family affair
10. Eat healthy even when time and money is tight
11. Enjoy living smoke free
12. Graduation

The Steps grant provided the Canyon Ranch Center the opportunity to hire a part-time *Promotora*, who worked primarily with the walking group component of the *Pasos Adelante* program. The *Promotora* contacted participants to remind them about the walking group schedule each week, took attendance, walked with the participants, and lead short exercise activities during each class session. The *Promotora* attended every *Pasos Adelante* class session and assisted in recruitment efforts for future rounds of *Pasos Adelante*. She also assisted in teaching and providing education information, in preparing teaching materials within the prescribed *Pasos Adelante* curriculum, in performing reminder calls for class sessions and measurement appointments, as needed. In a recent CDC Prevention Research Center Directors meeting, preliminary results were presented. Significant decreases from baseline to 12-month follow-up were observed in weight and body mass index, waist and hip circumference, total cholesterol and blood pressure. The Canyon Ranch PRC is currently in communication with the Southern Arizona Medical Center regarding sustaining the project and its impact on primary and secondary prevention of chronic disease in the Douglas community.

Pasos Adelante Walking Program

Canyon Ranch Center for Prevention and Health Promotion , University of Arizona

Participant Demographics

- Participants in this program are primarily Hispanic, Spanish speaking women with an average age of 50 years.
- Most participants have completed elementary school and have some junior or high school. Fewer participants have completed high school and beyond.
- The majority of participants are not employed (65%) and about 17% are employed full time or part time.

Chronic Illness and Risk Factors

- More than half of all participants have some sort of public or private health insurance, while 46% have no health insurance.
- Participants are at high risk for chronic illness.
- One quarter of participants have been diagnosed with diabetes and 38% of participants have a family member who has been diagnosed with diabetes.
- Almost half of all participants have been diagnosed with high cholesterol and/or high blood pressure.
- Asthma was reported among 7% of participants.
- 21% of participants are current smokers.

Pasos Adelante Walking Program Participant Demographics 2004-2008

N=298

Age	
Average Age in Years (SD)	50 (13.6)
Min Age - Max Age	18-85

Gender	
Male	25 (8.4%)
Female	273 (92%)

Marital Status	
Single	35 (12%)
Married	199 (67%)
Divorced	26 (3%)
Widowed	28 (9%)

Ethnicity	
Hispanic	298 (100%)

Preferred Language	
English	8 (3%)
Spanish	268 (90%)
No Preference	22 (7%)

Education	
No school	3 (1%)
Completed Elementary	95 (32%)
Completed High school	146 (49%)
College (13+ Years)	54 (18%)

(SD) Standard Deviation

Pasos Adelante Walking Program Access to Health and Health Status 2004-2008

	Participants N=298
Access to Health Insurance	
Yes	161 (54%)
No	137 (46%)
Current Health Status	
Asthma	20 (7%)
High cholesterol	123 (42%)
High blood pressure	113 (38%)
Diabetes	72 (24%)
Current Smoker	64 (22%)

Pasos Adelante Walking Program

Canyon Ranch Center for Prevention and Health Promotion , University of Arizona

Changes in Mental and Physical Health

Research has shown that increased physical activity can alleviate symptoms of depression

- Pasos Adelante graduates **significantly decreased the number poor mental days in the last month by 2 fewer days a week**. Prior to participating in Pasos Adelante , the average number of days of poor mental health was 6.9 days compared to 4.9 at post program.
- Although not statistically significant, **participants also decreased poor physical health by one less day**. Before the program participants were unable to function normally because of poor physical health an average of 6.5 days compared to 5.2 days post program.

Pasos Adelante Walking Program Mental and Physical Health Status at Baseline Among All Participants 2004-2008 N=247

Number of days in the last month unable to function because of poor:	None	1-5 days	6-9 Days	10-14 Days	15+ Days
Physical Health	125 (42%)	71(24%)	23 (8%)	18 (6%)	59 (20%)
Mental Health	97 (33%)	89 (30%)	29 (10%)	17 (6%)	60 (21%)



Power of Walking with a Promotora

“ As a Promtoras, I think I have helped increase the number of walking group participants through motivating them that exercise helps them to control their stress, diabetes, cholesterol and high blood pressure and makes them more flexible. By participating in the walking groups with a Promotora it helps them share with others, socialize and it helps them a lot with depression and at the same time it improves their quality of life.

-Marta Barrera, Promotora de Salud

Pasos Adelante Walking Program

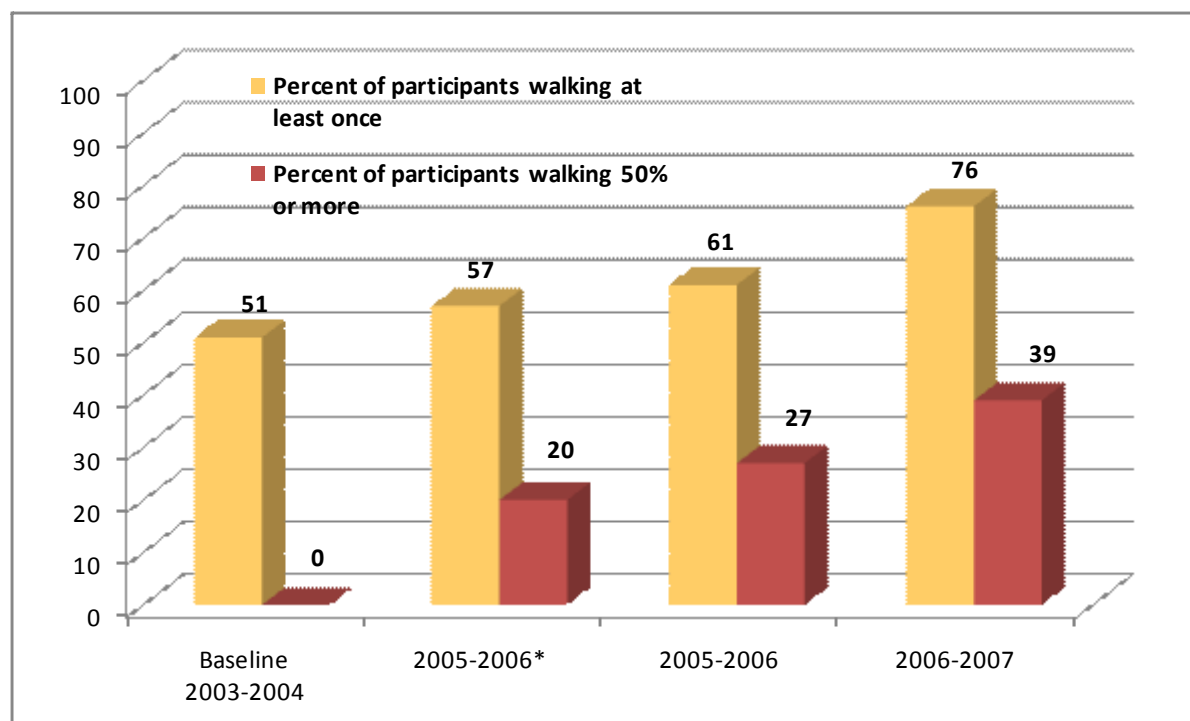
Canyon Ranch Center for Prevention and Health Promotion , University of Arizona

Changes in Participant Participation in Promotora-Led Walking Groups

Apart from the 12 interactive sessions on nutrition and physical activity, participants have 32 opportunities to walk with others in walking groups. Walking in groups is an evidenced based strategy used to increase physical activity and sustain it over time. Walking groups are integrated into the curriculum in the following way: Week 1: participants walk once a week; Week 2-3: participants walk twice per week; Week 4-12: participants walk three times per week.

- The **percentage of participants walking at least once has more than doubled** since Steps enabled the part time employment of a *Promotora* to coordinate walking groups and activities.
- The same incredible trend was also observed in a **600% increase in participants walking in at least half of all walking opportunities**.
- After Steps funding and the part time hire of the *Promotora*, **at least 20% of the participants attended more than half of the total walking opportunities** available during the 12-week program compared with 0% prior to Steps funding.
- Currently, **one-third of participants attend more than half of all walking opportunities** during the course

Participation in Walking Opportunities Among *Pasos Adelante* Participants 2003-2007



* Baseline: October 2003-October 2004, Rounds 1-2: January 2005-August 2005, Rounds 3-5: September 2005-August 2006, Rounds 6-9: September 2006-December 2007

Nutrition and Cooking Classes

Core Performance Measurement: I-6.1

DOMAIN

Community

HEALTH FOCUS

Diabetes & Obesity

OBJECTIVES

Diabetes: Increase identification of diabetes and support self-management behaviors by conducting community-based diabetes screening and increasing community awareness of diabetes self-care.

Obesity : Reduce sedentary behaviors and improve nutritional intake through increased community awareness, nutrition education, and physical activity opportunities.

METHODOLOGY

The objective of this program is to provide nutrition awareness education and hands on cooking classes to community members and their families who may be at risk for diabetes. Evaluation includes program documentation including number of classes and participation over time.

MEASURES/DATA SOURCES

1. Participation
2. Testimonials

PARTNER

Douglas Area Food Bank

The local area food bank offered, 2-hour nutrition education and cooking classes at the food bank kitchen. Classes are offered to adults who depend on food bank resources and community members at large. Group centered classes are targeted to:

- Overweight/obese men and women
- Adults diagnosed with diabetes
- Adults with family history of diabetes or a family member diagnosed with diabetes

A team-teaching approach provides nutritional education and hands on healthy cooking experience for group members. The Food Bank Nutrition Educator incorporates a Community Health Worker Model to deliver nutrition, physical activity and chronic disease health information in the context of a cooking class. The Nutrition Educator and Community Health Worker introduce healthy recipes and cooking techniques which incorporate new local vegetables and spices. Participants cook together, sample meals and reflect on related health topics which promote chronic disease management and prevention. Bilingual informational materials are provided to participants along with healthy recipes adapted to local culture and locally available food items. Some of the health educational topics include:



Learning Together About Health

- Body Mass Index
- Carbohydrates, Protein, Fats and Fiber
- Salt, sugars
- Dehydration and Diarrhea
- Heart Health
- Fiber
- Nutritional Labels
- Fad Diets

The program continues to operate as a modified monthly nutrition and cooking support group.

Nutrition and Cooking Classes

Douglas Area Food Bank

Participation

- Since the initiation of this program in 2005, a total of 159 nutrition classes have been offered to approximately 221 community members.
- In 2006, participation increased by 35 people and maintained at an average of 64 non-duplicate participants per year.

**Douglas Food Bank Nutrition Class Participation
2005-2008**

	2005	2006	2007	2008	Total
Events	~ 43	~ 100	16	—	~159
Number Participants	~ 27	~ 62	72	60	~221

Participant Testimonials

- Most program participants self describe as suffering from multiple chronic diseases including: diabetes, high blood pressure, high cholesterol and general cardiovascular health issues.
- Participants describe attending class with a family member or a friend at risk for or suffering from a chronic illness.
- Anecdotal behavior changes made due to the class attendance were reported to include: healthier cooking in the home and incorporating new vegetables and cooking styles.



Making Healthy Changes Generation by Generation

I have diabetes, high blood pressure, high cholesterol, and heart trouble. The nutrition class does me a great deal of good. It teaches us about portion size, various fruits and vegetables, meats, and fish. I take advantage of these nutrition classes for myself and for my family. I try to attend every Tuesday always. I wish that more people would attend the classes. They are really very important.

I became pregnant and began going to the local clinic for care. There I was diagnosed with gestational diabetes. For this reason my provider referred me to the Food Bank to take a nutrition course for persons with diabetes. I was very afraid, since two years previously I had had a difficult pregnancy and my baby was stillborn. For this reason I felt very insecure with this pregnancy and worried a lot about how it would turn out.

I began attending the nutrition classes with my mother, I learned many important things about nutrients, food preparation, shopping, and making good choices at the market. I began to feel more confident and secure in my pregnancy. My baby was born a normal weight. He is a very healthy baby, delivered normally and without complications.

Class participant testimonials

Community Outreach, Health Fairs and Presentations

Core Performance Measure: I-6.1, Suppl. O-2

DOMAIN

Community

HEALTH FOCUS

Asthma, Diabetes, Obesity

OBJECTIVES

Asthma : Increase knowledge and behaviors related to asthma triggers in the home and community (second-hand smoke, pesticides, allergens) and increase awareness of asthma in the community.

Diabetes: Increase identification of diabetes and support self-management behaviors by conducting community-based diabetes screening and increasing community awareness of diabetes self-care.

Obesity : Reduce sedentary behaviors and improve nutritional intake through increased community awareness, nutrition education, and physical activity opportunities.

METHODOLOGY

Partners document events and approximate number of community members participating. They document the number of screenings and type, and referrals to providers if any. It is assumed that all participants receive health information and information about available programs and services.

MEASURES/DATA SOURCES

1. Participation
2. Referrals (programs/providers)

PARTNER

Cochise County Health Department

Steps partners collaborated, and organized a variety of health-related events. Activities include the promotion of the event, delivery of educational information, screenings and referrals. Health fairs in Cochise County served a population with little or no access to health care and services. For many participants these events are the only venue to receive screenings and become aware of community health issues. Events provided participants access to diabetes risk factor screenings (paper tests and random blood glucose testing), BMI calculations and blood pressure checks. Nutrition, diabetes and asthma health educators are available for on-site one-on-one brief education. The health educators provided assistance and referrals to Steps and Steps integrated programs and to health care providers.

Community and worksite sponsored events included health fairs and short prevention education and health promotion presentations. These events created opportunities for Steps partners to network with non-Steps health agencies and provided cross-referrals and resource sharing. Health and outreach venues include:

- Food Demonstrations at the Farmers Market
- Maternal and Children's Health Fairs
- Lunch and Learns with local businesses (Wal-Mart, Electric Company, Home Depot)
- Parent-Teacher Family Nights
- Walk a Hound Lose A Pound Community Walking Event
- Asthma 101 and Diabetes 101 with community groups and volunteer fire and emergency personnel

In 2007, CCHD gained new leadership and the Steps program was re-evaluated and transformed. The County transitioned itself from delivering one-on-one and group education in community settings and health fairs to a systematic approach toward county level wellness. CCHD staff continued to attend community health fairs as part of existing maternal and child health and nutrition and tobacco program. CCHD Steps staff focused more on disease prevention and health promotion efforts with established programs with a solid referral-base.

Community Outreach, Health Fairs and Presentations

Cochise County Health Department

Community Events and Participation

- In the first three years of the Steps initiative, health educators attended 137 community outreach and health fair events and documented the participation of 9,259 adults.

Community Outreach, Health Fairs and Presentations				
	2004	2005	2006	Total
Events	51	47	39	137
Approximate Event Participants	~ 4000	~ 2456	~ 2803	9259

Steps Community Outreach

- A paper-based or clinical screening to determine a body mass index and/or diabetes risk was administered by a health educator with 20% of all health fair participants.
- 7% of participants received a referral to a medical provider, a Steps affiliated program or another County Health Department program.

Steps Referrals

- In 2006, there was an 18% increase in referrals by health educators.
- 21% of referrals were made to a healthcare provider, 73% to a Steps Program for nutrition or diabetes education and 4% to other county health department health and social service programs.

Community Outreach, Health Fairs and Presentations Screenings and Referrals to Steps Sponsored Programs				
	2004	2005	2006	Total
Steps Screenings*	~ 1100	~ 361 (15%)	~ 426 (15%)	1887 (20%)
Total Steps Referrals	~ 60	~ 166 (7%)	~ 467 (16%)	693 (7%)
Health Provider**	NA	45 (27%)	89 (19%)	134 (21%)
Steps Health Program**	NA	86 (51%)	378 (80%)	464 (73%)
Cochise County Health** Department Program	NA	18 (11%)	10 (2%)	28 (4%)

(%) Indicates approximate health fair participants receiving service (N=9259) *Screenings are adults only **(%) Indicates approximate health fair participants receiving a referral (N=693)

Step Together for Life: Promoting Individual, Family and Community Activity

Twenty volunteers and 7 community sponsors supported a Fun Walk for 150 community members and students and staff from 2 schools. Participants chose between long and short walking courses, school children were given pedometers to track steps. Participants enjoyed this family-based event and would like to see it as an annual event. Schools were excited to engage more children in this event in the future and local grocers were happy to support it.

Indoor Air Quality Tools for School Program (IAQTfS)

Core Performance Measure: I-6.1

DOMAIN

School

HEALTH FOCUS

Asthma

OBJECTIVES

Asthma: Decrease the incidence of asthmatic episodes among students by increasing capacity of school personnel to respond to the needs of asthmatic patients and developing school policies that reduce asthma triggers and support self care.

METHODOLOGY

The Steps to a Healthier Cochise County IAQ Tools for Schools Program is evaluated through the collection of both process and outcome indicators. Process indicators include documentation of participation in the IAQ Team, completion of the IAQ assessment tool. Outcome measures include documentation of IAQ policy change and a management plan to sustain change.

MEASURES/DATA SOURCES

1. Participation
2. Action plan
3. Policy management plan

PARTNER

**Cochise County Health Department
Various Cochise County School Districts**

According to the EPA, poor indoor air quality (IAQ) can impact the comfort and health of students and staff, which, in turn, can affect concentration, attendance, and student performance. In addition, if schools fail to respond promptly to poor IAQ, students and staff are at an increased risk of short-term health problems, such as fatigue and nausea, as well as long-term problems like asthma.

In 2007, the Cochise County Health Department (CCHD), led the implementation of the *Indoor Air Quality (IAQ) Tools for Schools (TfS) Program* in ten Cochise County schools. CCHD recognized early on that in order to sustain the reduction of exposures to indoor environmental contaminants, schools and school districts would need to do so through the voluntary adoption of sound indoor air quality management practices. Developed in 1995 by the Environmental Protection Agency (EPA), the IAQ TfS is as a comprehensive resource to help schools maintain a healthy environment in school buildings by identifying, correcting, and preventing IAQ problems.

To help Cochise County schools recognize the County Health Department as an instrumental partner in disease prevention and health promotion, the IAQ effort was coupled with the Center's for Disease Control (CDC) School Health Index (SHI). Similar to the IAQ, the SHI is a school health assessment tool, which enables school to assess strengths and opportunities in eight strategic areas as to prioritize school health policy change and increase coordination of school health efforts. The IAQTfS was a mechanism to jump-start coordination of efforts and create space for the completion of the SHI as to affect broader school health policy. This process eventually led two Districts to complete the SHI and incorporate findings into their school wellness policy.

IAQ/SHI external coordinators from the CCHD identified schools through previous collaboration in school health activities and targeted smaller rural school districts where policy could be impacted district wide. The interested schools entered into a contract with the CCHD for a stipend to be used to implement at least two IAQ school policies or systems changes. IAQ/SHI coordinators worked with school leadership to develop an interdisciplinary IAQ team, complete the IAQ assessment tool, prioritize two IAQ policy improvements, and develop a management plan to sustain school and district-wide air quality improvements. Throughout the implementation of the IAQ, the IAQ/SHI external coordinator maintained contact with the IAQ Team. The external coordinator was instrumental in supporting school staff and school decision makers in developing IAQ policy. This project remains important to the CCHD and they continue to seek funding mechanisms to support schools in their efforts to maintain effective indoor air policies.

Indoor Air Quality Tools for School Program (IAQTfs)

Cochise County Health Department

IAQts Participation

Schools and School Districts

- 10 total schools from 6 distinct communities participated in the IAQ Tools for Schools program
 - 3 elementary schools (K-6)
 - 3 elementary/middle (K-8)
 - 1 middle school (6-8)
 - 3 high schools
- 29% of school districts completed the IAQ and developed indoor air quality policy at the district level.
- 10 schools, from 7 school districts, are in various stages of adopting at least two IAQ promoting policies.
- At least three schools are awaiting School Board approval to implement IAQTfs policy.

Trading Moldy Carpet for Disinfected Tile

“ The benefits from having tile in Kindergarten–First Grade Classroom are: when a child has an accident from urine, vomit, water or juice, the areas cleaned up immediately– it doesn’t remain wet and have time to become moldy. Since the floor is mopped and dusted each night it seems like the room is cleaner too! “

-Kindergarten Teacher

The IAQts Coordinator

- **10 IAQ Coordinators** were selected to :
 - Develop the IAQ team
 - Develop the management plan
 - Coordinate building evaluations
 - Modify management plan
- Each school gained commitment from school administration and in some Districts the school board, in providing the necessary institutional support to meet the school district’s IAQ management plan objectives.

The IAQts Team

- **10 IAQts Teams** were developed to represent staff, students, and parents and assist the school district administration by reviewing IAQ-related information and recommending IAQts policies.
- IAQts Team Coordinators included; Superintendent, Principal, Facilities Manager and Teachers.
- Teams averaged 5 people and included an interdisciplinary team of: Facilities Managers or School Maintenance Directors, Principals, and Teachers.
- For the participating 7 schools districts, Superintendents from 3 districts were part of the AQts Team.

IAQ Source Removal Strategy: Carpet for Tile

Naco Elementary Teacher Testimony

There have been several benefits in having tile in the classroom versus carpet. For one, my allergies feel more under control than ever! I don’t have chronic headaches like I used to. Also the classrooms don’t smell stale or musty. We don’t have to worry about stains, spills or accidents on the floor. We can also speak softer because our voices travel better to the back of the classrooms.

Indoor Air Quality Tools for School Program (IAQTfS)

Cochise County Health Department

IAQTfS Teacher Classroom Checklist

- The *IAQ Teacher Classroom Checklist* was implemented with approximately 205 teachers.
- Teachers were given the Checklist after hearing a presentation about the IAQ Program by the IAQ/SHI external coordinator at a staff meeting.
- The Checklist assesses the following areas of a particular classroom: general cleanliness, animals, drain traps, excess moisture, thermal comfort, ventilation, and teacher satisfaction with indoor air quality.
- Data were collected by the IAQ/SHI external coordinator then analyzed by the Steps evaluation team.
- Results from each school were presented back to the IAQTeam by the external coordinator to determine IAQ needs and develop policy strategies.

Indoor Air Quality Tools for Schools Participation 2007-2008		
School District	School Type	Total Classrooms Surveyed
Elfrida	Elementary	13 (6%)
	High school	10 (5%)
St. David	Elementary	15 (7%)
	High school	19 (9%)
Wilcox	Elementary	32 (16%)
	Middle School	32 (16%)
	High school	29 (14%)
Tombstone	K-8 th	23 (11%)
Naco	K-8 th	14 (7%)
Palominas	K-8 th	18 (9%)
Total Teachers Completing Survey		205
Total School Districts Surveyed		7 (29%)

IAQTfS Classroom Status

- Approximately, half of teachers completing the Teacher Classroom Checklist were satisfied with the indoor air quality of their classroom, compared to 17% who were unsatisfied and 33% who had no opinion or found the question not applicable to them.

Major classroom cleanliness issues identified by teachers and staff include:

- 73% of teachers reported the presence of pests and vermin.
- 64% of classrooms carpets are unclean and or had the presence of moisture.
- 59% of classrooms have the presence of up-holstered furnishing and stuffed animals, which can be an asthma trigger.
- Almost half of classrooms are vacuumed irregularly.

Indoor Air Quality Tools for Schools Teacher Classroom Checklist	
General Cleanliness Among All Schools	N=205
Food not kept overnight	186 (94%)
Animal food not properly stored	157 (79%)
Daily trash removal	154 (78%)
Regular dusting	139 (73%)
Classrooms free of clutter	143 (72%)
Healthy plants no standing water	144 (72%)
District approved cleaning supplies	153 (72%)
Presence of air freshener	120 (61%)
Properly stored art and cleaning supplies	113 (57%)
Spills are thoroughly cleaned	106 (54%)
Classrooms vacuumed regularly	102 (52%)
Free of upholstered furnishings/stuffed animals	81 (41%)
Carpet is kept clean and free of moisture	68 (34%)
Room is free of pests and vermin	54 (27%)

Indoor Air Quality Tools for School Program (IAQTfS)

Cochise County Health Department

Classroom Ventilation

- Most of Cochise County classrooms reported no obstructed air flow and were free of smell and mildew. Yet, more than one-third of classrooms reported an obstructed air supply or return vent. Approximately, 40% of classroom teachers reported the presence of fumes from cars, kitchen or chemicals.

Indoor Air Quality Tools for Schools Teacher Classroom Checklist	
Classroom Ventilation	N=205
Air is flowing unobstructed from supply vent	170 (85%)
Classroom is free of smells of mold or mildew	165 (82%)
Windows are operable (if designed to be)	157 (79%)
Air supply and return vents free from obstruction	135 (68%)
Classroom is free of vehicle exhaust, kitchen/food, and chemical odors in the classroom	124 (62%)

Classroom Excess Moisture

- No less than one quarter of Cochise County classrooms have some issue with excess moisture in the classroom.
- Areas of major concern for classroom teachers are:
 - Condensation on indoor wall surface and windows
 - Leaks in ceiling tiles and walls as well as in the lavatory
 - Visible mold growth

Indoor Air Quality Tools for Schools Teacher Classroom Checklist	
Excess Moisture in Classroom	N=205
Areas around and under classroom sinks are free of leaks	154 (77%)
Cold water pipes are free of moisture accumulation	147 (74%)
Room is free of visible mold growth	128 (65%)
Classroom lavatories are free of leaks	121 (60%)
Indoor surfaces of exterior walls are free of condensate or signs of moisture	115 (58%)
Windows, windowsills, and window frames are free of condensate or moisture	96 (48%)
Ceiling tiles and walls are free of leaks	71 (36%)

Indoor Air Quality Tools for School Program (IAQTfS)

Cochise County Health Department

IAQTfS Policy Priorities

- The major IAQ policy adopted required all cleaning supplies be approved by the district.
- Anti-Bus Idling policy was adopted in two Districts.
- Parents, in one district, are strongly encouraged to turn off their car when waiting for their child while in another district, the parental pick up/drop off zone was relocated away from the school so as to minimize exposure to car fumes.
- The frequent monitoring and replacement of filters was adopted as a mechanism to maintain adequate ventilation in two districts.
- Frequent cleaning of high use areas and restriction of pollutant releasing activities by time of day/week and time of year were adopted in one district.
- Environmental safety manuals and IAQ teacher in services are slated for implementation in two districts.

IAQTfS Action Kit Six Basic IAQ Control Strategies

1. **Source Management** : Managing the source of the pollutant through removal, substitution or encapsulation
2. **Local Exhaust**: removing the point sources for indoor pollutants
3. **Ventilation**: lowering pollutant concentration
4. **Exposure Control**: adjusting the time and location of pollutant exposure
5. **Air Cleaning**: filtering particles and gaseous contaminants
6. **Education**: teaching and training school occupants about indoor air quality

IAQTfS Action Kit : Six Basic IAQ Control Strategies Adopted by Participant Schools

Indoor Air Quality Tools for Schools					
Selected Policies Adopted by Participating School Districts					
Source Management	Local Exhaust	Ventilation	Exposure Control	Air Cleaning	Education
Anti-bus idling (2)	None	Replace filters for furnace (2)	Pollutant-releasing activities are restricted by time of day/week/year (1)	Maintenance checks on problem areas (1)	IAQ teacher in-service (2)
Bus zone relocation (1)		Replace filters for air conditioners (2)	Frequent cleaning of high-use areas (1)		Development of environmental and safety manuals (2)
Anti-car idling (1)		Replace filters for water coolers (2)			
Carpet replacement					
District approved cleaning supplies (4)					
Exterminate/ eliminate pests, vermin, rodents (2)					
Relocation of parent pick/drop off zone (1)					

*IAQ Tools for School Action Kit;
(#) number of school districts adopting IAQ policy or strategy.

School-based Outreach and Capacity Building

Core Performance Measure: I-6.1

DOMAIN

School

HEALTH FOCUS

Asthma, Diabetes & Obesity

OBJECTIVES

Asthma Decrease the incidence of asthmatic episodes of students by increasing capacity of school personnel to respond appropriately, and developing school policies that reduce asthma triggers and support self care.

Diabetes: Improve school nutrition, physical activity and diabetes awareness through increased capacity of school personnel, student programs, and development of related policies.

Obesity: Improve school nutrition and physical activity through increased capacity of school personnel, student programs, and the development of related policies.

METHODOLOGY

Partners document school-based outreach and health education events and approximate number of children, parent and school personnel participating. They document the number of preventative health screenings and referrals to area providers. It is assumed that all participants receive health information and information about available programs and services.

MEASURES/DATA SOURCES

1. Number of events
2. Community participation
3. Number of health screenings
4. Number of referrals
5. Number of trainings

PARTNERS

Cochise County Health Department (CCHD) Douglas Area Food Bank

Steps school-based health education efforts began in 2004 as to increase awareness and visibility about the Steps to a Healthier Cochise County Initiative in schools. Steps lead agency, and community partner, Douglas Food Bank, offered asthma, physical activity and nutrition awareness education to students, staff and parents in a variety of school-based settings. Steps partners worked with school administration and teaching staff to offer direct instruction in the classroom setting. Bi-monthly classroom visits were made to elementary, middle and high school health and wellness classes to reinforce and supplement existing curricula. In resource poor schools, one-time asthma management, nutrition, and physical activity presentations in classrooms and at after-school events are often the only health information provided to students and their parents. School-based activities enabled Steps partners to engage with local teachers to co-facilitate interactive discussions with students about ways to incorporate healthy eating, physical activity and asthma management into their lives and classrooms.

In 2005, CCHD provided direct training for teachers, nursing, cafeteria staff and parents to increase the nutritional value of school lunches, prevent and manage asthma and diabetes in youth. Some of the capacity building events include:

- Partnering with the American Lung Association to provide Open Airways Training for teachers, nurses and parents.
- Connecting culinary students to provide a "Spice up Your Menu" training for school district food service managers
- Collaborate with area Head Starts to teach clients and child care providers about the prevention of type two diabetes in children.

In 2007, CCHD gained new leadership and the Steps program was re-evaluated and transformed. The County transitioned from delivering one-on-one and group education in school settings and health fairs to a systematic approach toward school level wellness. CCHD downsized its internal staff and re-distributed Steps resources directly to schools through mini-grants and the provision of technical assistance to school which aided schools to jump start programs and policy aims locally.

School-based health remains a priority for CCHD and continues to seek funding collaborative grant opportunities to support schools in their efforts to maintain effective primary prevention of chronic disease programs.

School-based Outreach and Capacity Building

Cochise County Health Department and Douglas Area Food Bank

School-based Health Education Outreach

- Since 2004, CCHD diabetes and obesity health educators have conducted 40 school-based educational outreach events attended by approximately 2310 children and 3233 adults.
- In 2006, there was a 12-fold increase in referrals by health educators to healthcare providers, to Steps supported health programs, and/or other County Health Department programs and services.
- In that same year, 19 participants were screened for obesity/overweight, asthma and/or diabetes using evidenced based paper-based risk assessments.
- Douglas Area Food Bank, implemented 24 nutrition and diabetes presentations in the Douglas Unified School District with an estimated 875 students.

School-based Health Support

- In 2006-2007, 3 schools, one school district and an area 4-H program received Steps support to implement health education and physical activity opportunities including:
 - Nutrition classes
 - Student and staff wellness clubs
 - Physical education curriculum
 - School-community garden
 - Dance Dance Revolution (4-H Program)

School-based Health Education and Outreach 2004-2006				
	2004	2005	2006	Total
School-based education events	9	33	44	40
Participation				
Student	573	1137	1475	~2310
Parents/Teachers	ND	ND	3233	~3233
Schools Funded by Steps	1**	3	1**	4
Educational and Screening Contact with School-based Health Fair Participants				
Health screenings*	ND	ND	159	~159
Referrals (provider/program)	8	13	104	~125
School-based trainings	0	92	1	51

ND No data. *Health screenings are conducted with adults only ** One school district with a total of 5 schools.

“Step it Up” Student and Staff Wellness and Policy

Core Performance Measure: I-6.1

DOMAIN

School

HEALTH FOCUS

Diabetes & Obesity

OBJECTIVES

Diabetes: Improve school nutrition, physical activity and diabetes awareness through increased capacity of school personnel, student programs, and development of related policies.

Obesity: Improve school nutrition and physical activity through increased capacity of school personnel, student programs, and the development of related policies.

METHODOLOGY

Methods for the evaluation of mini-grants are descriptive and self-administered questionnaire. Grantees are emailed the questionnaire at one year and asked to describe the following aspects of their activities: participation and reach; major successes; any organizational change that occurred because of seed money; challenges to implementing and sustaining the program and plans for maintaining activities.

MEASURES/DATA SOURCES

1. Participation
2. Follow-up questionnaire

MINI GRANT RECIPIENT

Colonel Smith Elementary School

In 2006, a champion school nurse at Colonel Smith Elementary initiated a health and fitness initiative for elementary school staff and students. The program incorporated evidenced-based strategies to increase daily physical activity and promote individual nutrition education on multiple levels for students and staff. Staff formed a School Health Council to implement the School Health Index as to address school wellness policy. The following program and policy activities were achieved:

Health Awareness and Promotion

The school nurse established multi-media communication strategies to promote school wellness awareness and activities. Some of the strategies included:

- School health announcement bulletin board
- Health and fitness signage and flyers
- Health announcements and meeting times in school newsletter and local city paper
- PA system announcements of health activities

Student/Staff Health Database

The school nurse obtained a database program to collect health outcomes among students and staff. Weight, height, BMI and blood pressure are collected and evaluated by the school nurse.

“Step It Up Club” (Staff/Student Walking Program)

Students and staff formed a fitness club and meet daily at lunch time to walk. This walking time is considered a method for social support, especially for children who are without a consistent social group. Increased physical activity is associated with reduction of symptoms of depression in adults. The school nurse reports children’s emotional and social needs are supported with these groups. This club also meets weekly, after school to learn about physical activity and nutrition plan activities. The school nurse used several evidence-based strategies to increase physical activity and healthy nutrition with club members:

- Wellness goal setting and contract
- Activity logs and food intake journaling
- Social support through sustained weekly encounters

School Health Council

The school nurse assembled an integrated team of students, parents, teachers and administrative staff to develop a school wellness policy. The School Health Index was used to assess and develop an improvement plan.

“Step it Up”: Student and Staff Wellness and Policy

Colonel Smith Middle School

Participation

- 350 total participants
- Approximately 20-30 students met weekly

Organizational Change

The school nurse reported that the members of the Health Council have a better understanding of childhood obesity, asthma and school policies and has brought a working team together to address these issues in the school.

School Health Council members include:

- 6th, 7th and 8th grade teachers
- PE Teacher
- 2 Parents
- 1 Student
- 1 Step County Health Department Representative

Describe any changes your Steps mini grant had on your organization

“Steps mini grant allowed community, parent and staff relationships to be developed. Health promotion efforts enabled an overall awareness of the need to change health culture within the schools.”

School Nurse -Annual Evaluation Survey

A School Nutrition Policy was implemented:

- Arizona Department of Education Nutrition Guidelines are required for all campus fundraisers, after school and school day parties, school athletic events, school clubs and the breakfast program.

Challenges

- Time constraints for planning and personnel limitations to plan and recruit parents, staff and students were the two major challenges.

Sustainability & Next Steps

The school nurse intends to sustain all efforts and reports that the “Step It Up Club” continues to meet weekly and currently sponsors a daily breakfast snack program and a Diabetes Fundraiser initiative. The School Health Council also continues to meet monthly to address student wellness policy.

The school nurse plans to identify, purchase and implement an interdisciplinary health curricula and develop a better relationship with cafeteria staff and involve them in nutrition education.

What do you consider the most successful aspect of the project?

*“Health and Fitness Advisory committee is now known as “Smith’s Health Council”. [The council] has completed the School Health Index addressing most of the components of [this] project. **The Council was instrumental in school health policy**”*

School Nurse -Annual Evaluation Survey

Describe some of the challenges you encountered in making your project work?

*“Time constraints to get items purchased, meetings organized; plan and sponsor weekly student meetings and daily lunch walking programs. **To do a great job you need a full time [school health] coordinator in each school**”*

School Nurse -Annual Evaluation Survey

Student Nutrition Classes and Walking Club

Core Performance Measure: I-6.1

DOMAIN

School

HEALTH FOCUS

Diabetes & Obesity

OBJECTIVES

Diabetes: Improve school nutrition, physical activity and diabetes awareness through increased capacity of school personnel, student programs, and development of related policies.

Obesity: Improve school nutrition and physical activity through increased capacity of school personnel, student programs, and the development of related policies.

METHODOLOGY

Methods for the evaluation of mini-grants are descriptive and self-administered questionnaire. Grantees are emailed the questionnaire at one year and asked to describe the following aspects of their activities: participation and reach; major successes; any organizational change that occurred because of seed money; challenges to implementing and sustaining the program and plans for maintaining activities.

MEASURES/DATA SOURCES

1. Participation
2. Follow-up questionnaire

MINI GRANT RECIPIENT

Bella Vista Elementary School

In 2006, Steps mini grant funds enabled the school nurse to provide health education classes for elementary students in grades kindergarten through sixth grade. The school nurse purchased pedometers, heart rate monitors and a stationary bike to illustrate the benefits of physical activity and heart health. The school nurse engaged students and teachers in the following themes:

- Reading food labels for calories and fat content
- Food groups
- Meal planning

A student walking club was also started with children, parents and staff walking before and after school. The nurse also encouraged the use of the School Health Index to address school wellness policy.

Participation

- 450 elementary students
- Aged 5-10 years

Organizational Change

The School Health Index was completed. School nurse monitors children's BMI on a continual basis. This year she found that 27% of students were considered at risk for overweight or overweight.

Challenges

Due to scheduled testing and preparation for testing, school nurse had limited time with students for wellness education in the classroom.

Sustainability & Next Steps

Nurse is unsure if efforts will be sustained, but feels that continual education about nutrition and the benefits of physical activity is important for both students and parents.

Asthma 101 Training for School Personnel

Core Performance Measures: I-6.1

DOMAIN

Schools

HEALTH FOCUS

Asthma

OBJECTIVES

Decrease the incidence of asthmatic episodes in students by increasing capacity of school personnel to respond appropriately, and developing school policies and programs that reduce asthma triggers and support self care.

METHODOLOGY

Methods for the evaluation of mini-grants are descriptive and self-administered questionnaire. Grantees are emailed the questionnaire at one year and asked to describe the following aspects of their activities: participation and reach; major successes; any organizational change that occurred because of seed money; challenges to implementing and sustaining the program and plans for maintaining activities.

MEASURES/DATA SOURCES

1. Participation
2. Follow-up questionnaire

MINI GRANT RECIPIENT

American Lung Association

In 2006, the local area American Lung Association received a mini-grant to provide the Asthma 101 Program to classified and non-classified staff of the Douglas Unified District to support schools in the effective management of asthma at school and promote a supportive learning environment for children with asthma. Asthma management in school can decrease disruption in the classroom, reduce missed school days and encourage students to actively participate in all school activities. The Asthma 101 Program was designed to address these issues and is targeted to school personnel, day care providers, parents, care-givers, church groups and social service agencies.

This introductory lesson on asthma, its triggers and treatments provided Douglas school teachers and staff information to better care for the children in their district who have asthma. The Asthma 101 lesson covers the following:

- The prevalence of asthma
- Basic signs and symptoms of asthma
- Common triggers found in the school environment
- Basic management of an acute asthma episode
- Asthma medications and delivery devices
- Asthma management and monitoring tools

Participation

- 101 teachers and school staff
- 18-65 years

Organizational Change

Participants reported they feel better equipped to handle and care for students with asthma. The American Lung Association (ALA) reported they would not have been able to provide the Asthma 101 lesson to Douglas Unified School District staff without the aid of the mini grant program. At the school level, it was reported that the Superintendent of the Douglas school requested that the Asthma 101 program be offered to every employee of the Douglas Unified School District and classes were to be scheduled through the Human Resources Department.

Sustainability –Next Steps

ALA plans to continue to work with the Human Resource Department of Douglas Unified School District and offer the Asthma 101 training to middle and high school teachers.

Community Health Worker Certification Program

Core Performance Measure: I-6.1

DOMAIN

Provider

HEALTH FOCUS

Asthma, Diabetes, Obesity

OBJECTIVES

Asthma: Increase capacity of providers/community health worker to screen, diagnose, treat, and refer patients with asthma according to NIH Asthma Guidelines.

Diabetes : Increase capacity of providers/community health workers to screen, diagnose, treat and refer patients with diabetes.

Obesity : Build capacity of providers/community health workers to screen, diagnose, treat and refer overweight/obese patients.

METHODOLOGY

Methods for evaluation are descriptive and include documentation of academic participation among community members and agencies in the certificate program, workforce development opportunities through practicum placement and activities and in some cases job placement after graduation. Organizational change is documented through monthly reports , key informant interviews and meeting minutes at the local community college level as well affiliated higher education programs.

MEASURES/DATA SOURCES

1. Monthly reports
2. Meeting minutes
3. Key informant interviews

PARTNER

**Cochise Community College
Cochise County Health Department**

Community health workers (CHWs), also known as promotoras de salud, community health advisors, lay health advisors, outreach workers, and community health advocates, have been working with marginalized populations in the U.S. since the 1960s. CHWs are characterized as community leaders who share the language, socioeconomic status and life experiences of the community members they serve. The use of CHWs has become almost obligatory in programs that address health disparities in minority populations because of their proven effectiveness in increasing healthcare utilization, providing health education, and advocating for patient needs. Research shows that CHWs have successfully increased health knowledge and/or health service utilization in many areas including nutrition, diabetes, increased chronic disease and cancer screening. CHWS have also been attributed with individual changes in health status. Over the past decade the CHW model has been recognized as a vital approach to meeting the needs of the socioeconomic disadvantaged and minority rural residents in Arizona.

In 1998, a CHW certificate program was developed as part of a Fund for the Improvement of Post Secondary Education (FIPSE) grant awarded to the University of Arizona. The initiative became known as Project Jump Start and was led by the Arizona Area Health Education Center (AHEC) in collaboration with four rural community colleges. Cochise College was one of these instrumental Colleges. Cochise College in coordination with area health and social service agencies and CHWs developed, implemented and evaluated the competency-based, credit-bearing core curriculum for CHWs.

In 2004, Steps lead agency, partnered with Cochise College to provide educational stipends to community members interested in becoming a CHW. In 2006, partner institutions became concerned with the rate of attrition among the most vulnerable CHW students and it became clear that graduating students were not being hired in the community as CHWs due to a lack of awareness among agencies regarding the role of CHWs and how they could be matriculated into agency outreach and education activities

In 2007, CCHD and Cochise College collaborated to shift directions of the program to decrease attrition rates among vulnerable students, increase awareness among county agencies of the role of CHWs and the CHW model and ultimately take necessary steps to begin to institutionalize the CHW certificate program at Cochise College and other institutions of higher education.

Learn more:

Community Health Worker National Workforce Study
<http://bhpr.hrsa.gov/healthworkforce/chw/>

Community Health Worker Certification Program

Cochise Community College

Community Health Worker Basic Certificate Program Description

The CHW Certificate is comprised of six modules of instruction covering 29 core competency areas as identified by the National Community Health Workers Survey. The six modules constitute the core roles of CHWs and include ; Public Health and Primary Health Care, Communication, Community Health Education, Advocacy, Capacity-building, and Work skills. The required courses and field work can be completed in two semesters, and students may take three semesters if needed. The certificate is comprised of a total of 16 credits:

- Introduction to Community Health Advising (3 units)
- First Aid & CPR (1 unit)
- Introduction to Social Work (3 unit)
- A communications elective (3 unit)
- Practicum (320 hours of field work) (6 units)

CHW Certificate Participation

- Since 2004, 30% of students have completed a 320-hour practicum experience in a community-based setting.
- 18% of students graduated with the certificate by completing 16-coursework credits and the 320-hour internship.
- Working students with families were less likely to finish the practicum requirement, thus decreasing the likelihood of certificate completion.

Community Health Worker Certificate Program Participants 2004-2007

	2004	2005	2006	2007	Total
Enrolled Students	17	12	10	11	50
Practicum completion	NA	5	2	8	15 (30%)
Certifications	NA	1	5	3	9 (18%)

ND: No Data NA: Not Applicable due to academic program year

CHW Professional Development

CHW students increase personal and professional development through workshops, conferences, community coalitions and CHW professional organization activities, here are a sample of events:

- 10 participated in the Annual Binational Border Health Conference.
- 2 volunteered at a local Wellness Clinic.
- 1 organized a Hepatitis C and HIV training.
- 2 collaborated in writing a Steps mini-grant to sustain a support group.
- 6 became members of the Arizona Community Health Outreach Worker Network (AzCHOW)
- 2 attended a local policy coalition meeting.
- 1 became a member of a school health index wellness team.

Community Health Worker Certification Program

Cochise Community College

Workforce Development

The required practicum experience raised awareness among health and social service agencies about the role of a CHW and the potential for implementation of the CHW model. CHWs have completed practica in the following settings:

- Cochise County Children's Center
- Southeastern Area Behavioral Health Services
- Three Springs Residential Treatment Center
- Women's Transition Project
- Epilepsy Foundation
- Southeastern Arizona Medical Center
- Cochise County Health Department
- Army Community Nursing Clinic
- Family Literacy Program (Head Start Program)

Organizational Change

In 2007, to decrease attrition rates among working students, increase the likelihood of job placement among graduates and institutionalize the certificate program within both the Cochise College and other academic settings, Steps funding focused on program coordination and workforce development and less on stipends to individual students. A part time Community Health Program Coordinator position was developed and filled by a masters level social worker was to :

- Establish a county-wide Social Services Advisory Board which meets quarterly in various satellite college sites throughout the county.
- Developed an on-line core classes to provide flexibility to working students.

Policy Change

- Offer students additional certificate, degree, and transfer options by transferring the Certificate out of the School of Nursing and into the Department of Social Work to provide the option of a combination community health, social service, and social work tracts of study. Upon completion of the program, students can choose to return to the workforce with a CHW Certificate or continue on an academic path in social work.
- The Social and Health Services associates degrees was made transferrable to Arizona State University, Social Work Program.
- Reduced the number of field experience hours from 6 units of credit or 320 hours to 3 units of credit or 160 hours.

Social Services Advisory Board

Purpose

Assist Cochise College in accurately assessing community needs, identify essential skills of program students, and discuss practicum and job placements for students upon certificate and degree completion.

Participating Agencies

Cochise College
(Douglas Campus, Adult Education, Financial Aid Department)
Cochise County Health Department
University of Arizona South
Southeastern Arizona Behavioral Health Services Inc (SEAHBS)
Department of Economic Security (DES)
Southeastern Arizona Governments Organization
Area Association of Aging
Sierra Vista Regional Medical Center (SVRMC)
Arizona Community Health Outreach Worker Network (AzCHOW)

Supporting Agencies:

Mariposa Community Health Center
University of Arizona-College of Public Health

Breathe Right Patient-Provider Asthma Program

Core Performance Measure: I-6.1

DOMAIN

Patient, Provider & Policy

HEALTH FOCUS

Asthma

OBJECTIVE

Patient : Decrease the episodes of asthmatic events through increased self-management practices and decreased inappropriate use of asthma medication.

Provider : Increase knowledge and behaviors related to asthma triggers in the home and community (second-hand smoke, pesticides, allergens) and increase awareness of asthma in the community.

Policy: Develop and implement policies that will address the reduction of asthma triggers (pesticides, smoke, allergens, air quality) and increase air quality monitoring of these triggers in multiple environments.

METHODOLOGY

Evaluation will consist of a survey completed by the provider and the medical assistant upon completion of each asthma-related patient visit. Measures are based on the National Initiative for Children's Health Care Quality and document process outcomes for provider and health support team asthma diagnosis and monitoring decision making, asthma delivery system design and family management support. Patient demographics, including asthma severity and quality of life indicators were also collected. Due to the pilot-nature of this program, baseline measures are reported only.

MEASURES/DATA SOURCES

1. Provider Participation
2. Pilot Survey Results

PARTNERS

Cochise County Health Department Sutton and Associates LLC, Asthma Consulting

The Breathe Right Program is designed to help patients monitor and control their asthma. Each medical provider is given a set of Breathe Right kits for their patients. The medical provider also receives a "cheat sheet" of the latest national guidelines for asthma diagnosis and management for easy reference. This information is designed to help the medical provider deliver the highest quality of care possible. Patients are provided with a Breathe Right kit that consists of a number of items that include but are not limited to: a peak flow meter, a medication management system, and information about the asthma disease process and an example of an Asthma Action Plan. Nurses, Medical Assistants, or other staff charged with patient education discuss the contents of the kit with the patient and/or caregiver and explain how to use the items to better control asthma symptoms. As an example, patients are directed to use the peak flow meter daily to establish a baseline for their lung function. On a day when they test below baseline, they will contact their doctor for guidance or follow the asthma action plan that has been developed for them by their physician in order to avoid a admission to emergency room and missed school and work days due to asthma.

The Kit is designed for general family physicians practicing in rural areas to increase the number of these non-specialists in the use of NIH Guidelines to diagnose and manage asthma. Members from the Cochise County Asthma Special Action Group (SAG) identified three general family practice clinics from distinct areas of the county to pilot the intervention. Clinic sites were located in Wilcox, Douglas and Sierra Vista. Representatives from CCHD and Asthma Consultant implemented at least 2 in-service trainings with each clinic staff and delivered several patient asthma Kits to the providers to be distributed to the asthma patient with the educational intervention.

Issues of time, staffing and a change in clinic management (in one clinic) limited the pilot tests sites from implementing the intervention on a continual basis. A pulmonologist serving Steps border communities was identified by a SAG member to pilot test and evaluate the intervention. To better target the intervention with rural general providers, CCHD worked with the University of Arizona, Zuckerman College of Public Health, master's level epidemiology student and the Arizona Health Care Cost Containment System (AHCCCS). The master's student used ADHS hospital discharge data and AHCCCS hospital encounter data to identify providers with high-risk asthma patients and establish a baseline for ongoing monitoring of asthma related events and related cost in the county. CCHD is committed to reducing the asthma related health burden in Cochise County and is actively pursuing reimbursement mechanisms for county health nurses to provide education and support to rural health providers.

Breathe Right Patient-Provider Asthma Program

Cochise County Health Department, Health Care Practice Partners, LLC,
Cochise County Asthma Special Action Group

Patient Demographics and Asthma Status

- Data from the Breathe Right Patient Provider program pilot is derived from one pulmonologist charged with serving three southern Arizona border counties.
- The intervention predominantly targeted existing asthma patients under the age of 15 with an asthma classification of moderate persistent (48%) or mild persistent (36%) asthma.
- Almost one-quarter of asthma patients or their caregivers reported having missed at least one day of work or school due to asthma in the last 2 weeks.
- The majority of patients/caregivers had a medium (33%) to medium high (56%) level of confidence in their ability to control their asthma (or their child's asthma).

Patient Satisfaction with Breathe Right Tool

- Although, patients/caregivers had never had the intervention or used the Kit prior to this visit, they reported that the kit was helpful in managing their asthma (94%) and easy to use (94%).
- Almost half of patients/caregivers reported daily use of the Kit to control their asthma, it could be assumed that patients/caregivers *planned* to use the tool daily to manage asthma, but this can not be certain.

Breathe Right Process Evaluation Patient Demographics N=64		
Gender	Male	Female
	40 (64%)	22 (35%)
Age	Mean (SD)	Range
Children (years) N=47	7 (4.1)	2-15
Babies N=14 (months)	13 (7.5)	2-23
Type of Asthma Related Visit		
	New Asthma Patient	17(27%)
	Existing Asthma Patient	45 (73%)
Asthma Severity Classification		
	Severe Persistent	4 (6.5%)
	Moderate Persistent	30 (48%)
	Mild Persistent	22 (36%)
	Mild Intermittent	4 (6.5%)
Confidence to Control Asthma and Days Missed		
Average number of days in last 2 weeks patient missed work or school because of their asthma.	.5 days	(1.0)
	Range	0-4 days
	0 days	39 (63%)
	1 days	5 (8%)
	2 days	4 (7%)
	3 days	3 (5%)
	4 days	1 (2%)
	Missing	10 (16%)
Patients confidence in ability to control asthma (scale 1-10)	7	(1.5)
	Range	4-10
	4	6 (10%)
	5	14 (23%)
	6	10 (16%)
	7	15 (24%)
	8	10 (16%)
	9	5 (8%)
	10	2 (3%)

Breathe Right Patient-Provider Asthma Program

Cochise County Health Department, Health Care Practice Partners, LLC,
Cochise County Asthma Special Action Group

Provider Use of the Breathe Right Tool Kit

- The pilot provider did not use the NIH Asthma Guidelines Cheat Sheet to guide in the classification or reclassification of patients asthma severity or to determine medication a plan.
- The pilot provider was more likely to use the Kit to demonstrate how to measure a personal best with a Peak Flow Meter and slightly more likely to use the tool to create or update an Asthma Action Plan.
- These results are somewhat expected due to the intervention being piloted by a pulmonologist who specializes in diseases of the lung. As originally intended, the intervention should be piloted with general family practitioners as to determine the frequency of use of the NIH Asthma Guidelines Cheat Sheet.
- It is promising that the Peak Flow meter included in the Kit is used to demonstrate how to determine a personal best. It would be beneficial to follow up with this pilot site to determine the reason why the Kit was not used to develop/update an Asthma Action Plan.

Medical Assistant and Nurse Use of the Breathe Right Tool Kit

- Medical Assistants (MA) and Nurses were more likely to use the Kit to provide health education with patients and their caregivers.
- MA/Nurses explained the contents of the Breathe Right Tool to the patient in 98% of asthma visits and reported a family member or a friend was present for the educational sessions 100% of the time.
- Medical Assistants used the tool kit to demonstrate which medications to take a time using the color-coded stickers included as an educational tool in the kit.
- MA/Nurses used the kit to determine a personal best using a peak flow meter with more than half of patients/ caregiver.
- MA/Nursing results are promising and demonstrate that this intervention is easy to use to provide hands on education to asthma patients.

Breathe Right Process Evaluation Survey Completed by Provider and Medical Assistant during each asthma related visit N=62

Provider used NIH Cheat Sheet and items from the Kit to :

Classify or reclassify current asthma severity	2 (3%)
Determine medication management plan	3 (5%)
Demonstrate how to measure personal best with a peak flow meter	11 (18%)
Create/update Asthma Action Plan	4 (7%)

Medical Assistant/Nurses :

Explained the contents of Breathe Right Tool	61 (98%)
Demonstrated which medication to take at what time using the color-coded stickers	51 (82%)
Demonstrated how to determine personal best using a Peak Flow Meter	36 (58%)
Taught patient about the Asthma Action Plan using the colored crayons	22 (36%)
A family member or a friend was present during education session	61 (98%)

Cochise County Asthma Special Action Group

DOMAIN

Policy

HEALTH FOCUS

Asthma

OBJECTIVE

Policy: Develop and implement policies that will address the reduction of asthma triggers (pesticides, smoke, allergens, air quality) and increase air quality monitoring of these triggers in multiple environments.

METHODOLOGY

Increased membership and collaboration are assessed using attendance lists. Programs and activities implemented through the SAG to achieve policy goals are documented in meeting minutes. Policy change is documented through meeting minutes and reports.

MEASURES/DATA SOURCES

1. Participation
2. Meeting minutes

PARTNERS

**Cochise County Health Department
Various SAG partners**

Recognition of the extent to which individual health-related behavior is shaped by social and cultural norms and by the physical environment of a community has brought increasing attention to systems and environmental factors that contribute to health-related behaviors. The Special Action Group (SAG) is a community-based coalition focused on creating policy change that directly impacts the prevention and control of diabetes, asthma and/or obesity. The SAG may include representatives from government, health and human services, schools, media, business, faith-based organizations, law enforcement, and concerned citizens. Core membership consists of local community members, however as the meetings are open forums, they are attended by guests throughout the region.

SAGs were first developed in 1998 in Cochise County and in 1999 in Santa Cruz and Yuma Counties to address diabetes prevention and control through the Border Health Strategic Initiative. SAGs move through several stages of development, beginning with basic education about the risk factors for the disease of interest. The second stage focused on the distinctions between programs and policies. For many SAG members, planning and implementing policy change is a new experience. The third stage involves an inventory and review of relevant conditions and policies that currently existed in the community. On the basis of the inventory, SAG membership identifies and prioritizes policies and action plans. Policy-related achievements of the SAGs to date include raising awareness about chronic disease and behavioral risk factors, involvement in city planning processes to increase open spaces, and increased resources to the communities to build infrastructure for recreational activities.

The Cochise County Asthma Special Action Group is intended to be a county wide SAG focused on asthma. The Asthma SAG was initiated by the Cochise County Health Department in 2006, by initiating meetings with internal county asthma, environmental health and tobacco programs. Starting small, the SAG evolved to include a respiratory therapist, a local pediatrician, public health graduate student and school nurses. The SAG served CCHD as an advisory committee regarding health department asthma programming. SAG members also represented Cochise county at the state level by attending Arizona State Asthma Coalition and advocating for asthma patient-provider interventions to increase the likelihood evidenced based medicine among rural health care providers. Individual members of the Asthma SAG continue to provide vital feedback to the State Coalition regarding Cochise County and state level asthma planning. It is unclear at this time how the efforts of the Asthma SAG will continue and who the lead agency will be in future efforts.

Asthma Special Action Group

Cochise County Health Department

Asthma SAG Mission

The purpose of the Asthma Special Action Group is to advocate for better services countywide and improved quality of life for individuals with asthma in Cochise County through partnership development and community building. The goals include improving clinical management and care through the use of data, education and outreach, to ultimately improve asthma prevention and care policy.

SAG Membership

The Asthma SAG met quarterly during 2006-2007 and included the following agency representations:

- Cochise County Health Department
 - Steps to a Healthy Cochise County Program
 - Tobacco Education Program
- Sutton and Associates LLC, Asthma Consulting
- Willcox Against Substance Abuse (WASA)
- School Nurses
- University of Arizona, Cochise County Cooperative Extension

Stages of Asthma SAG Development

The Asthma SAG was started in 2007 and managed to move through the three major stages identified as the SAG development process.

Stage 1: Raising Awareness About Risk Factors

- CCHD contracted Sutton and Associates LLC, Asthma Consulting to provide guidance to SAG membership in terms of raising awareness about trends in asthma incidence and prevalence among community residents as well as state and national trends.
- SAG members learned about current Arizona legislation around asthma medication in schools, evidenced-based tools for schools and patient education as well as National Institutes of Health (NIH) current guidelines.

Stage 2: Defining Asthma Related Programs and Policies

CCHD Steps program had several asthma program and community assessment activities planned for which the SAG served as an advisory board as well as provided local knowledge of possible partners to work with in the area. The program activities were guided by members of the Special Action Group:

- Implement the Environmental Protection Agency's (EPA), Indoor Air Quality Tools for Schools Program (IAQTfS) and develop at least 2 IAQ mitigation policies in 10 Cochise County school districts.
- Develop and pilot the Breathe Right Patient-Provider Asthma Program with county clinics to increase the number of health providers using NIH guidelines to diagnose and manage asthma and assist in education of asthmatics and caregivers.

Stage 3: Inventory of Asthma Related Conditions and Policies

CCHD worked with the University of Arizona, Zuckerman College of Public Health, Master of Epidemiology student and the Arizona Health Care Cost Containment System (AHCCCS) to establish a baseline for ongoing monitoring of asthma related hospital encounters in Cochise County using both county-level hospital discharge data and AHCCCS medical encounter data.

Steps to a Healthier Cochise County

Mini Grant Initiative

National Core Performance Measures: 1-6.1

Description and Participation

Mini-grants were intended as seed money to jump start area projects among community agencies interested in Steps disease areas of asthma, diabetes, nutrition and physical activity. The mini-grant opportunity was advertised in several community venues, including the newspaper, public newsletters and flyers. Steps lead agency also attended community coalition meetings, conducted school presentations as to encourage participation. Projects were evaluated through a self administered questionnaire at one year completion of activities. Recipients were asked to provide information about participation and reach; major success; organizational change; challenges as well as sustainability. The Steps evaluation team worked with the mini-grant recipients to organize evaluation results into a one-page program narrative report. To be used for disseminating program results with stakeholders and grant writing opportunities. The table below lists the

Domain	2005	2006	2007	2008	
School Domain	Bella Vista Elementary	Student Nutrition Classes and Walking Club			
	Colonel Smith Elementary	“Step it Up” Student and Staff Wellness			
	Douglas Unified School District	Pagrazi Physical Education Curriculum	Wellness Curriculum and Wellness Policy	School-Community Garden	
Health Care Domain	Northern Cochise Community Hospital	Diabetes Support Groups	Nutritional Counseling and Support Groups	Nutritional Counseling and Support Groups	
	Copper Queen Hospital		Nutrition Education	Nutrition and Diabetes Education	
	Sierra Vista Regional Health Center			Smart Teen Eating Program (STEPS Club)	Smart Teen Eating Program (STEPS Club)
Community Domain	American Lung Association			Asthma 101 for teachers and administrators	
	Baja Arizona Sustainable Agriculture			Nutrition Education Farmer’s Market	
	University of Arizona, Cochise County Cooperative Extension			Sierra Vista Special Action Group	Wilcox Special Action Group
	University of Arizona, Cochise County Cooperative Extension -4-H Program			Dance Dance Revolution	Dance Dance Revolution

The Steps to a Healthier Santa Cruz County Initiative was led by **Placticamos Salud, the Health Promotion Division of Mariposa Community Health Center (MCHC)**. *Placticamos Salud* took an ecological approach focusing on diabetes patient self-management, fitness for seniors, professional development for health professionals including CHWs, as well as school wellness and policy.

“Santa Cruz County Family Health Advocacy Forum”

Steps to a Healthier Santa Cruz County Initiative developed a collaborative of 11 local youth-focused health and social service agencies to plan and organize the first ever Family Health Advocacy Forum. The objective of the event was two-fold: (1) Develop a collaborative of Santa Cruz County health and social service agencies and University partners to increase leadership and advocacy skills among all agencies and the families they serve, and (2) Inform parents and teens of the health status of their community through the most recently available Youth Behavioral Risk Survey (YRBS) and the Behavioral Risk Factor Survey (BRFS) data.

Program organizers selected components of the University of Arizona, Cooperative Extension Arizona Community Training Curriculum (ACT) and developed a bilingual workshop for parents and teens. A parent-versus-teen Jeopardy game was developed to present the Santa Cruz County YRBS and BRFS data. This game engaged parents and teens in learning about the differences and similarities in youth and adult health behaviors, like tobacco use, physical activity and nutrition. Some families had reported prior experience in advocating for change with school boards and/or school administration. After the forum, parents and teens reported increased knowledge and confidence in their ability to advocate or make changes in their home and family (70%), school (73%), neighborhood (81%) and county or state (85%).

The collaborating partners of the forum continue to focus on advocacy issues including access to health coverage for children and families, and school-based health centers.

Santa Cruz County Health and Social Service Agencies Build Advocacy Skills

A diverse groups of partners collaborated to develop, implement and evaluate the Health Advocacy Forum:

Mariposa Community Health Center-*Placticamos Salud*
Nogales Unified School District
Santa Cruz County Unified School District
Santa Cruz County Office of the Superintendent
Salud Por Vida Program
Juvenile Detention Education Program
Gaining Early Awareness and Readiness for Undergraduate Program (GEAR UP)
Home Instruction for Parents of Preschool Youngster (Hippy Program)
Arizona Health Care Cost Containment System of Southern Arizona (AHCCCS)
Cochise College
University of Arizona, Cooperative Extension of Santa Cruz County
University of Arizona, Zuckerman College of Public Health

The Steps Final Evaluation report covers the process and outcomes of 12 programs and efforts of Santa Cruz County partners. Four of these programs were evaluated using pre/post questionnaires, all of which showing some statistically significant improvements. Programs were also evaluated through program documentation, participation, and testimonials from personnel and participants. Below is a summary of evaluation highlights in Santa Cruz County, by domain or intervention level:

Patient and Family

The **Annual Camp Kazoon Kite Asthma Camp** was successful in connecting several local health and social service agencies in the provision of a 3-day, day camp for local asthmatic children. Partners included Nursing and Pharmacy students from the University of Arizona and high school Health Career Club students supported by South Eastern Area Health Education Center (SEAHEC). The students were trained in the Open Airways for Schools program and were active in the planning and implementation of the Camp. Follow-up with parents indicated improvements in child's knowledge and asthma self-management skills. Most importantly, parents reported having developed asthma action plans with their medical provider which were used at home and at school.

Throughout Steps, several statistically significant outcomes have been demonstrated by the **Diabetes Patient Education Program** and *Platicamos Salud*. During Steps (2003-2008) 594 diabetic patients entered the program and over 50% completed the 6-week program. Patients reported a significant increase in self-management behaviors such as monitoring blood sugar at home, following a special diet for diabetes, and checking their feet regularly. From pre-program to 6-month follow-up, Hemoglobin A1c levels significantly decreased by 15% from an average of 8.2 to 7.0. Among high-risk graduates with HbA1c levels between 8.1-9.9 levels also significantly decreased by 12%, from 8.8 to 7.7. There was also a significant decrease in blood pressure and waist circumference.

A total of 107 pregnant women entered the **Gestational Diabetes Education and Counseling Program** at *Platicamos Salud*. Major goals of the program include healthy birth weight, non-surgical vaginal delivery. Eighty five percent of births among program participants were born in the expected healthy weight range and more than half of all participants maintained adequate glycemic control through dietary modification. Among participants planned to control their diabetes through diet alone, only 4% moved to insulin and/or oral medication. The program was recently funded by the ADHS Diabetes Prevention and Control Program to develop a gestational diabetes curricula for *promotoras*.

A total of 71 families participated in the **Steps to Healthy Family Program**, a program targeting primary and secondary prevention of childhood obesity. Children aged 9-11 years with body mass indices above the 95th percentile were identified and recruited by a school nurse. Outcomes included a decrease in weekly soda intake and television viewing among parents. Both parents and children increased their weekly vegetable intake and improved their knowledge about recommended fruits/vegetables intake. The average number of days per week a child eats breakfast at home increased and the average number of days the family dined out decreased. Children significantly increased the number of days they helped prepare the family dinner and increased the number of school days they chose salad bar and fresh fruit items.

Community

Throughout Steps, partners connected people to local health resources and served a population with little or no access to health care and services. A total of 17 **community health events** were organized and attended by 2108 adults and approximately 760 youth. Approximately 21% (419) of adult participants were screened for diabetes and heart disease.

More than 500 **physical activity and nutrition education opportunities for seniors** were offered annually reaching an average of 346 seniors from five Santa Cruz County communities. Seniors were offered full fitness experiences to improve strength, cardiovascular health, balance and function, while benefiting socially from exercising with people their own age.

Schools and Child Care

In 2005 the **School Health Coordinators Committee (SHCC)** implemented a **School Health Index (SHI) Workshop** with 14 schools (95%) from 2 school districts. Participating school health teams completed the self-assessment and developed action plans. In 2006, over half of the schools had completed or partially implemented their action plans. The SHI workshop prepared schools for the federal mandate which required Local Educational Agencies (LEAs) participating in the National School Lunch Program to have a Local Wellness Policy in place by June of 2006. The Steps School Health Coordinators assisted with the development of district level wellness teams and Local Wellness Policies. One policy included Recess Before Lunch implemented in all elementary schools in one district.

Worksite

The SHCC implemented **Health Risk Appraisals (HRA)** with 522 school personnel and established wellness priorities in diabetes, heart disease, stress and depression, based on risk results. One school superintendent designated school space for weekly physical activity and stress reduction opportunities at 3 school sites. The SHCC presented the HRA results to the Arizona School Board Insurance Trust (AZBAIT). As a result in 2004 AZBAIT implemented a “Call-a-Nurse” option for employees to discuss health risk behavior and re-activated the **Employee Assistance Program and school site wellness options** to support staff in managing financial troubles, family issues, behavioral health, and counseling resource and obtain flu shots and mammograms. In 2005 AZBAIT implemented an **Employee Wellness Incentive Score Card program** designed to increase employee health and safety by encouraging employees to work in a buddy system, accumulating points for being physically active during the week, weekend and holiday season.

Provider and Community Health Worker

Public health workforce development and continuing health education was of major importance for Steps lead agency. Since 2004, 109 **professional capacity building opportunities** were offered, including conferences, evidenced-based trainings and certificate bearing coursework. More than 621 interdisciplinary health and social service providers, including community health workers were supported to attend these events. Slightly less than half of these events were considered technical trainings and twelve health professionals initiated and or completed a certificate-bearing health related education program.

Policy and Environmental Change

Steps partners in Santa Cruz County worked in a variety of efforts to focus on policy and environmental change. The three special action groups included the **School Health Coordinators Committee (SHCC)**, the **Older Adult Working Group (OAWG)** and the **Nogales Special Action Group (SAG)**. Each group was unique in its level of collaboration and ranged from basic networking, coordination, cooperation and full collaboration.

The SHCC started as a group of Steps partners which focused on school health wellness and coordinated activities and resources for mutual benefit and to achieve the common purpose of improved school health. Example of that coordination include the planning and implementation of the SHI Workshop, the Family Advocacy Health Forum and the submission and funding of an Arizona Department of Transportation Safe Routes to School (SRTS) grant inspired to develop an interdisciplinary work group of city planners, school district leaders and health professionals to promote and organize neighborhood an SRTS district plan.

The OAWG was established in 2005 as a network of health and social service agencies serving older adult and seniors citizen population. This group met monthly to exchange information and provide trainings to group members which were taken back to their own agencies. The OAWG provided a venue to coordinate senior nutrition programs and physical activity opportunities. The OAWG was crucial in providing input to city planners about critical points of access to transportation of seniors.

The SAG was first developed in 1999 as part of the Border Health Strategic Initiative. The SAG focused on changing community policies and norms regarding diabetes, asthma and obesity. The SAG disbanded in 2006 as many members joined the SHCC and the OAWG and worked on a city ballot initiative increase the city sales tax to provide funding for hospital expansion and parks and recreation.

Camp Kazoon Kite

Core Performance Measures:

I-6.1, Suppl. 0-1, 0-1.4, 0-1.5, 0-2.1, 0-6.3

DOMAIN

Patient / Family

HEALTH FOCUS

Asthma

OBJECTIVES

Reduce frequency and severity of asthmatic episodes through increased decision-making skills, self-management practices and appropriate use of asthma medication.

METHODOLOGY

Methods for evaluation are descriptive, including community collaboration and efforts to implement the camp, and documentation of evidence based activities. A pre/post questionnaire is completed by one parent on screening night and again by phone or mail, 3 months after camp. Hypothesis testing on categorical responses was conducted using the Exact McNemar's test for proportions or the Wilcoxon sign-rank test as appropriate. Variables that were not normally distributed were treated as categorical. Continuous responses were tested with paired t-tests. The overall level of statistical significance was adjusted (Sidak corrected alpha = 0.005) to account for multiple comparisons.

MEASURES/DATA SOURCES

1. Participation
2. Collaborating partners
3. Description of activities
4. Pre/post parent questionnaire

PARTNERS

MCHC-Platicamos Salud (Let's Talk Health) Southeastern Area Health Education Center (SEAHEC)

The Consortium for Asthma Camps* indicates there is a moderate to high level of evidence regarding children's asthma camps that asthma camps can improve parent and child asthma knowledge, a child's internal locus of control, self-efficacy and attitude about their disease, and improve their metered dose inhaler and peak flow meter technique. This literature also indicates that asthma camps decrease child's anxiety, symptoms, exacerbations, school absences, emergency department visits, and hospitalizations.

In 2006, the Steps initiative the Southeast Arizona Area Health Education Center (SEAHEC) and Mariposa Community Health Center (MCHC) piloted the first youth camp focused on asthma. This collaboration developed a three day, day-camp designed for elementary students diagnosed with asthma by a physician and currently taking asthma medication. Unique to this Asthma Camp is the sponsoring Steps agencies' commitment to engage university nursing and pharmacy students, and local high school health careers clubs in the active planning and implementation of the camp. Apart from developing a comprehensive asthma camp, Steps sponsoring agencies provide students a practical experience in meeting and planning with a local agency and area health providers. Steps partners build capacity among local high school students by training them in the Open Airways For School Program and partnering students with university Students to teach lessons. Ultimately, Campers are encouraged to manage their asthma through peer education and positive role modeling.

Since it's pilot, the Camp has been implemented annually for three consecutive years. A strong and committed collaboration among schools nurses, the local hospital and community health center providers as well as Promotoras have enabled the annual planning and implementation of the camp. Steps lead agency will lead Asthma Camp planning and evaluation efforts in the future.

Learn more:
Consortium for Asthma Camps
www.asthmacamps.org



Camp Kazoon Kite 2008

Camp Kazoon Kite

Southeast Area Health Education Center (SEAHEC) and
Mariposa Community Health Center-*Platicamos Salud*

Asthma Education and Activities

Day 1

- Registration Ice Breakers and Open Airways Pre Test
- Feelings about Asthma – Open Airways Module 1
- Activity : Bucket of feelings
- Physical activity Game: Catch Parachute Igloo
- Lunch Time
- Art Activity – Create your own puppets
- Peak flow and inhalers/ How to clean your devices
- Music Class...playing kazoos...



Campers keep their battery charged through physical activity!

Day 2

- Welcome Back! -Ice Breaker Activity
- Recognizing and Managing Asthma Symptoms-Open Airways Module 2
- Physical Activity: Soccer
- Solving Problems with Medication/Deciding how bad symptoms are – Open Airways Module 3
- ADEQ – Children environmental program / creating air monitors
- Lunch Time
- Physical activity: Rock climbing
- Finding and controlling Asthma Triggers - Open Airways Module 4
- Physical activity: trigger hide and seek
- Writing activity – create an asthma message for your puppet show
- Music Class
- Handout for Parents

Day 3

- Keeping Your Battery Charged -Open Airways Module 5
- Physical activity – Hockey
- Activity – Lungo
- Doing Well at School – Open Airways Module 6
- Post test
- Lunch Time!
- Activity – Make your own mucus
- Playtime! Catch
- Music Rehearsal
- Parent educational component: by medical provider.
- Project B.U.T.T– Tobacco Program for everyone
- Graduation and Party !



Building trust and self-efficacy to manage asthma while being physically active on the Rock Wall!

Camp Kazoon Kite

Southeast Area Health Education Center (SEAHEC) and
Mariposa Community Health Center-*Platicamos Salud*

Total Collaboration for Camp 2006-2008

- 5 participating agencies
- 28 Educator/Counselor Volunteers:
 - 2 Nurse Practitioners / Respiratory Therapists
 - 2 Registered Nurses/Nursing Professors
 - 7 High school students
 - 10 Nursing Students
 - 3 Pharmacy Students

Pre Post Assessment Outcomes

An intake and follow up questionnaire was conducted with a parents regarding their child's asthma. Follow-up is conducted by a Promotora via phone approximately three months after asthma camp. At this time the Promotora is able to conduct evaluation as well as invite the parent to participate in a home-based asthma program funded through the EPA. Of the 17 total campers who participated in the three annual camps, 9 parents have completed both a pre and post assessment. The results below describe parental observed changes in children's behavior and knowledge about asthma.

Knowledge and Self Efficacy (N=9 matched pre post pairs)

- 88% (8) of children increased their understanding about their own asthma and 33% (3) increased their level of responsibility for taking care of their asthma.
- 44% (4) of children increased their self-management skills, including when and how much medication, and strategies to reduce an attack when wheezing or coughing starts.
- 44% (4) of children have a more positive attitude about their ability to control his/her asthma.
- 87% (7) of asthmatic children are less self-conscious about their asthma (e.g. using an inhaler in public).

Asthma Management

- Among children who did not have an asthma action plan prior to the camp, 42% now have an action plan, of those who did not have an asthma action plan at school, 83% now do.
- 66% of parents reported their child's asthma has improved since attending asthma camp.
- Among children that awoke frequently during the night due to asthma, 14% (1) awake fewer nights due to asthma; and 25% fewer children experience interference with exercise post camp due to their asthma.



Asthma management messages are reinforced through the creation and acting out a puppet show!

Through active recruitment and publicity Camp Kazoon Kite planning staff raise asthma awareness among local agencies :

Community

Boys and Girls Club
Girls Scouts
Nogales Parks and Recreation Center
Women Infant and Children, WIC

Schools

Santa Cruz Valley Unified Schools District
Nogales Unified School District
AJ Mitchell Elementary School
Peña Blanca Elementary School

Media

Nogales International Media Release

Provider

Nogales Clinic
Southeast Arizona Behavioral Health Services
Mariposa Community Health Center
Carondelet Holy Cross Hospital
Carondelet Medical Group

* Wilcoxon Sign Rank test for statistical significance at the $P < .005$ level (Sidak corrected alpha = 0.005) to account for multiple comparisons

Diabetes Patient Education

Core Performance Measure: I-6.1, Suppl. 0-1 and 0-2, 01.1, 0-1.3, 0-2.1-2.7, 0-4.1, 0-4.2, 0-5.1, 0-6.1, 0-6.2, 0-7.3

DOMAIN

Patient / Family

HEALTH FOCUS

Diabetes

OBJECTIVE

Improve glycemic control through improved self-management practices and family support.

METHODOLOGY

Evaluation will document improvements in knowledge and self-management practices, and diabetes indicators among participants. Self-management practices include adherence to diet, regular exercise, glucose monitoring, and foot care. Diabetes indicators include: random blood glucose, blood pressure, pulse, anthropometric measures, and hemoglobin A1C.

Diabetes knowledge and self management indicators are measured at baseline, program completion, with the exception of hemoglobin A1C which is measured at baseline and at 90-days post program follow-up. Hypothesis testing on categorical responses was conducted using the Exact McNemar's test for proportions or the Wilcoxon sign-rank test as appropriate. Variables that were not normally distributed were treated as categorical. Continuous responses were tested with paired t-tests. The overall level of statistical significance was adjusted (Sidak corrected alpha = 0.002) to account for multiple comparisons.

MEASURES/DATA SOURCES

1. Participation
2. Pre/post questionnaire
3. Diabetes clinical indicators

PARTNERS

**Mariposa Community Health Center-Placticamos Salud
Carondelet Health Network**

The Diabetes Patient Program started in 1998 as part of the Santa Cruz Collaborative Diabetes Project through a Health Services Resource Administration (HRSA), Rural Health Outreach Grant awarded to Steps lead agency, Mariposa Community Health Center. Partners included many Steps partners of today; Southeastern Arizona Area Health Education Center (SEAHEC), Mel and Enid Zuckerman College of Public Health, and the Carondelet Health Network. Steps to a Healthier Santa Cruz now partner with Carondelet Health Network Certified Diabetes Educator (CDE) to work with MCHC-Placticamos Salud Promotoras to provide morning and evening self-management classes which are co-taught by CDE and a community health outreach worker or Promotora. Promotoras have been involved since program inception. Promotoras are highly trained in diabetes risk, self management and diabetes complications and serve as the link between diabetic patients and vital health care resources. Promotoras connect uninsured and underinsured participants with preventative diabetes clinical screenings, medications and glucose monitoring equipment. Promotoras conduct outreach to recruit and retain participants; provide patient education and individual and group support.

Participants diagnosed with diabetes type 1, type 2 or pre-diabetes are initially referred to the program by their health care provider or a nurse from the local Hospital or Community Health Center. Clients are called by Promotoras and invited to join the 6-week series of weekly 2-hour diabetes education classes. Promotoras are integral in contacting the participant by phone and inviting them to join and complete the program. Often, person newly diagnosed with diabetes or pre-diabetes are startled and overwhelmed by the diagnosis and are hesitant in participating in the program. Personal phone calls, inviting and motivating participants to attend classes are just one way for Promotoras to develop a personal relationship with participant, as well as answer any immediate questions about their diagnosis.

Participants receive education through interactive sessions covering the topics of meal planning, self-glucose monitoring, goal-setting and expectations of care, and self-activity guidelines. They meet with the CDE to establish medication, blood glucose goals, meal and exercise plan. Promotoras help clients obtain a glucometer and test strips and teach them how to monitor their blood sugar. Mid-week, support calls are made and in some cases home visits are conducted. One-on-one counseling sessions before and after classes with the nurse practitioner monitor blood glucose and other risk factors as well as modify medication plan as needed.

Diabetes Patient Education

Mariposa Community Health Center-*Placticamos Salud* (Let's Talk Health) and Carondelet Health Network

Participation

- Since 2004, 594 diabetic patients have completed an intake survey and initiated the 6-week diabetes education program.
- 309 (52%) participants completed the program by attending 4 of the 6 classes.

Diabetes Patient Education Program Participation and Graduation 2004-2008						
	2004	2005	2006	2007	2008	Total
Participation	124	201	127	105	37	594
Graduates	60 (48%)	104 (50%)	84 (66%)	61 (58%)	—	309 (52%)

Participant Demographics

- Participants are predominately Hispanic (98%), females (69%) and range in age from 18-85 years, with an average age of 57 years.
- More than half of all participants are married (61%) and 38% report being single, divorced or widowed.
- Almost half of participants have less than a high school education, one third have completed high school, one tenth have some college education and 5% are college graduates.

Access to Health Care

- Approximately 40% of graduates have no health care insurance and therefore depend on the local community health center's sliding scale mechanism for care of their diabetes.
- 40% rely on state or federal health insurance safety programs.
- Only one quarter of participants have access to employer-based private health insurance.

Diabetes Patient Education Program Demographics 2004-2008		
	Graduates N=309	Total N=593
Age		
Average Age in Years (SD)	57 (12.7)	57 (13.3)
Min Age - Max Age	18-85	18-89
Gender		
Male	97 (32%)	185 (31%)
Female	207 (68%)	404 (69%)
Marital Status		
Single	38 (12%)	75 (14%)
Married	190 (61%)	335 (61%)
Divorced	45 (15%)	80 (15%)
Widowed	35 (11%)	59 (11%)
Separated	1 (>1%)	2 (.1%)
Ethnicity		
Anglo	0 (0)	0 (0)
Hispanic	302 (98%)	551 (98%)
African American	6 (2%)	7 (1%)
Education		
None	26 (8%)	41 (7%)
Less than High school	147 (48%)	264 (47%)
Completed High school	88 (28%)	161 (29%)
Some College	33 (11%)	67 (12%)
College Graduate	15 (5%)	29 (5%)

(SD) Standard deviation

Diabetes Patient Education

Mariposa Community Health Center-*Platicamos Salud* (Let's Talk Health) and Carondelet Health Network

Diabetes Related Characteristics

- One quarter of participants are newly diagnosed diabetics, and 22% have been living with diabetes for less than 5 years.

Gestational Diabetes

Gestational diabetes is a risk factor for developing Type 2 diabetes.

- 13% of all participants were diagnosed with gestational diabetes with at least one past pregnancy.
- 36% were unsure if they were told by their doctor they had gestational diabetes during pregnancy.
- Approximately one quarter of female diabetic participants with children had a previous birth of over 9 pounds, and 35% of mothers were unsure if they had a baby over 9 pounds.

Health Status

- More than half of all participants have been diagnosed with co-morbidities of high cholesterol, high blood pressure and obesity.
- 5% have asthma.
- 14% are current smokers.

Previous Diabetes Education

- More than one third of all participants have had some type of diabetes patient education in the past and 40% reported having taken diabetes patient classes.
- Less than 1% have had diabetes education delivered by a nutritionist or dietician, or a hospital educator, and fewer than 5% received education about their diabetes from a provider.

Diabetes Patient Education Program Diabetes Related Characteristics 2003-2008

	Graduates	Total Participants
Years with Diabetes	N=303	N=556
Less than 1 year	78 (26%)	134 (24%)
1-5 Years	70 (23%)	123 (22%)
6-10 Years	56 (19%)	111 (20%)
More than 10 Years	55 (18%)	103 (19%)
Does not have Diabetes	44 (15%)	83 (15%)
Gestational Diabetes		
Diagnosed with GDM	41 (14%)	68 (13%)
Unsure	109 (36%)	203 (38%)
Previous birth over 9pounds	62 (21%)	120 (22%)
Unsure	106 (35%)	188 (35%)
Health Status		
Asthma	11 (4%)	27 (5%)
High cholesterol	201 (66%)	344 (61%)
High blood pressure	153 (50%)	296 (53%)
Obesity	48 (70%)	63 (69%)
Current Smoker	42 (14%)	---
Previous Diabetes Education	107 (35%)	188 (34%)
Education Type	N=225	N=382
Doctor/Medical Provider	9 (4%)	16 (4%)
Nutrition/Dietician	2 (.8%)	9 (2%)
Literature Only	3 (15%)	1 (4%)
Diabetes Classes	92 (41%)	154 (40%)
Hospital Educator	3 (1%)	9 (2%)

Diabetes Patient Education

Mariposa Community Health Center-*Platicamos Salud* (Let's Talk Health) and Carondelet Health Network

Changes in Self Reported Provider Care

- Graduates **significantly increased** their knowledge of annual preventive test conducted by their health care provider including increased awareness of their health care providers conducting the following preventative diabetic exams:
 - Feet check
 - Dilated eye
 - HbA1c
- Graduates reported high levels of awareness of providers checking their cholesterol, blood pressure, weight and urine at program intake and 6-month follow up.
- Graduates increased awareness of their provider checking their teeth for periodontal issues by 34% .

Diabetes Patient Education Program Participant Knowledge about Provider Care 2003-2008		
Provider care in past year (does not include screenings occurring as part of diabetes class) N=303	Pre Program	Post Program
*Checked feet	145 (47%)	190 (61%)
Checked cholesterol	272 (88%)	280 (90%)
Checked blood pressure	298 (97%)	298 (96%)
*Dilated eye exam	169 (55%)	205 (66%)
Urine	291 (95%)	295 (95%)
Teeth	139 (46%)	211 (70%)
Unsure	91 (30%)	9 (3%)
Weight	282 (92%)	285 (92%)
*HbA1C	151 (49%)	208 (67%)
Unsure	36 (12%)	11 (4%)
Currently taking blood pressure medication	155 (51%)	162 (52%)
Mean doctor visits for diabetes in previous 6 months	1.9 (1.9)	1.9 (1.7)

Post- program measurements were taken at 6-9 months post graduation.
*McNemar Test $P < .001$

Diabetes Patient-Provider Relationship

- 20% (61) of participants increased their confidence in asking questions or talking about concerns regarding their diabetes with their provider as well as talking to their provider about how they cared for their diabetes.
- 30% (91) of graduates **significantly increased** their level of satisfaction with the diabetes care they receive from their physician, and 14% (43) decreased their level confidence with their diabetes care.

Diabetes Physical Activity

- Weekly physical activity among participants **significantly increased** by almost one day a week.

The Importance of Follow Up for Diabetes Patients

Promotoras follow up with participants at several stages of the diabetes education intervention. After graduation, *Promotoras* make monthly phone calls to participants to give them support in their diabetes self management. These phone calls are valuable to both *Promotora* and patient in their efforts to stay healthy and in control of their diabetes. *Promotoras* invite patients to join them for a 3-6 month follow up visit to repeat lab work, including HbA1C tests, and check in on self management goals set upon class graduation. At this follow up visit, patients are seen by the Certified Diabetes Health Educator and may be referred to a Diabetes Support Group or invited to participate in the diabetes class again.

Diabetes Patient Education

Mariposa Community Health Center-*Placticamos Salud* (Let's Talk Health) and Carondelet Health Network

Diabetes Self Management Behavior

- Smoking decreased by 13% among graduates.
- Of those graduates who had not monitored their blood sugar at home prior to program intake, **21% were significantly more likely to monitor their blood sugar at home.**
- Of those participants who had not followed a special diet for diabetes prior to program intake, **32% were significantly more likely to follow a special diet for diabetes** at 6-months post graduation follow-up.
- Of those participants who did not check their feet regularly, **16% of participants now check their feet.**
- Of those graduate who did not know what an HbA1C test for diabetes was, 52% now know and of those who did not know what their *personal* HbA1C level was at the time of intake 40% now know.

Diabetes Patient Education Program Changes in Self Management Practices Pre Program and Follow Up N=309 2004-2008

	Pre Program	Follow up
Currently Smoking	42 (14%)	37 (12%)
*Monitors blood sugar at home	154 (50%)	230 (75%)
*Follow diabetes diet	150 (49%)	228 (74%)
*Check feet	232 (75%)	297 (96%)
*Know what an HbA1C is	50 (16%)	253 (82%)
*Knows personal HbA1C level	31 (10%)	211 (69%)

Post test follow up was conducted approximately 6-8 months after graduation.

** McNemar P <.001*

Diabetes Health Indicators

- HbA1c levels **significantly decreased** by 15%, from an average HcA1c level of 8.2 to 7.0 at 6-months follow up.
- High risk graduates with HbA1c levels between 8.1-9.9 **decreased HbA1c significantly** by 12% , with an average HbA1c level of 8.8 at pre class decreased to 7.7 at 6 months post graduation.
- Both systolic and diastolic blood pressure **decreased significantly**, as did waist circumference.

Diabetes Patient Education Program Diabetes Related Health Outcomes Pre Program and Follow Up 77% of Graduates (N= 288) 2004-2008

	Post Program Mean (SD)	Follow Up Mean (SD)
*HbA1c level	8.2 (.39)	7.0 (.09)
*HbA1c 8.1-9.9	8.8 (.07)	7.7 (.20)
HbA1c >=10.0	14.2 (2.0)	8.2 (.30)
Random Blood Glucose (mg/dl)	175.2 (4.8)	171.3 (13.1)
*Systolic blood pressure (mg/dl)	131.3 (1.10)	127.1 (.96)
*Diastolic blood pressure (mg/dl)	77.2 (.68)	75.7 (.56)
Weight (lbs)	177.62 (36.71)	173.1 (76.6)
*Waist Circumference (in)	40 (.30)	41 (.45)
Pulse	76.6 (.58)	74.6 (.47)

Hemoglobin A1c is a percent value. Follow measurements were taken between 6-9 months post graduation.

*Paired T Test. P = ***<.001*

Diabetes Patient and Family

Support Group

National Core Performance Measurement: I-6.1

DOMAIN

Patient / Family

HEALTH FOCUS

Diabetes

OBJECTIVE

Improve glycemic control through improved self-management practices and family support.

MEASURES/DATA SOURCES

I. Participation

PARTNER

MCHC-Platicamos Salud (Let's Talk Health)

During years 2004-2005, two community-based, *promotora*-led diabetes support groups met twice a month for two hours beginning in 2006 through Steps end, one diabetes support group met monthly. Diabetic patients, their friends and family members are welcome to join in group discussions about managing life with diabetes. Central to the support group are community health outreach workers, or *promotoras de salud*. *Promotoras* conduct outreach and referrals, lead patient education activities and provide individual and group support.

Most diabetes support group sessions involve a short education component, a shared healthy food item and a physical activity component like salsa dancing which is very popular with attendees. Participants and their guests discover strategies to cope with denial, anger, guilt, depression and stress, which often occur when diagnosed with diabetes. Diabetes self-management, nutrition and physical activity goals are set and methods to attain and sustain results are discussed. Support group themes include:

- *Triunfos en medio de la adversidad*/Triumphs in midst of adversity
- *Porciones: Seguridad y prevención en días festivos*/Portions: Safety and Prevention during the holidays
- *Tema de reflexión aprendiendo a envejecer*/Reflection theme of learning to grow old.
- *Auto-estima*/self esteem
- *Que es diabetes nutrición y porciones*/What is diabetes nutrition and portions?

Participation and Next Steps

Since 2004 a total of 63 support group sessions have been organized by *Promotoras* for community members with an average participation of 25. Support groups are part of the Mariposa Community Health Center's integrated diabetes program based in self management education and social support for Type 2 diabetes and gestational diabetes. Steps lead is committed to these programs and continues to actively search for grant opportunities continue these efforts.

Mariposa Community Health Center-Platicamos Salud Diabetes Support Groups

	2004	2005	2006	2007	Total
Support Sessions	15	24	12	12	~63
Average Participation	25	35	10	30	~25

Gestational Diabetes Program

Core Performance Measures: 1-6.1

DOMAIN

Patient

HEALTH FOCUS

Diabetes

OBJECTIVES

Improve glycemic control through improved self-management practices and family support, reduce adverse outcomes to infant and mother and to deliver an appropriate weight for gestational age infant.

METHODOLOGY

The objective of the gestational diabetes program is to maintain glycemic control and improve birth outcomes among pregnant women diagnosed with gestational diabetes through one-on-one and group counseling. Evaluation consists of participation, demographics, diabetes history, births outcomes.

MEASURES/DATA SOURCES

1. Participation
2. Demographics
3. Intake Assessment
4. Post-partum follow up assessment

PARTNERS

MCHC-Placticamos Salud (Let's Talk Health) Carondelet Health Network

The Gestational Diabetes Program began in 1998 as part of the Santa Cruz Collaborative Diabetes Project through a Health Services Resource Administration (HRSA), Rural Health Outreach Grant awarded to Steps lead agency, Mariposa Community Health Center. Partners included many Steps partners of today; Southeastern Arizona Area Health Education Center (SEAHEC), Mel and Enid Zuckerman College of Public Health, and the Carondelet Health Network. Steps to a Healthier Santa Cruz now partners with Carondelet Health Network Certified Diabetes Educator to work with lead agency Promotoras to provide pregnant women diagnosed with diabetes no cost one-on-one counseling and education throughout their pregnancy.

Women diagnosed with gestational diabetes are referred by their health provider or by a prenatal nurse. Clients are called and invited to the diabetes education center on Wednesdays between the hours of 2 and 5pm. Promotoras are integral in contacting the client by phone and inviting her to join the program. Many times mothers are scared and depressed about the diagnosis and do not want to participate in the program. Promotoras answer all of immediate questions and meet with participants personally if necessary.

Clients are called by Promotoras at the beginning of each week and invited for weekly mid-week sessions. Women receive education through an American Diabetes Association video covering the topics of meal planning, self-glucose monitoring, goal-setting and expectations of care, and self-activity guidelines. They meet with the registered nurse practitioner (RNP) to establish medication, blood glucose goals, meal and exercise plan. Promotoras help clients obtain a glucometer and test strips and teach them how to monitor their blood sugar at home and on the go.

Mid-week, support calls are also made and in some cases home visits are conducted. One-on-one counseling sessions with the RNP monitor blood glucose and other risk factors as well as modify medication or nutritional plans as needed. Post-partum participants receive a follow-up phone call and/or a hospital visit by the Promotora. At this time participants are referred to an existing maternal and child health home visit program.

The gestational diabetes program is part of the Steps lead agency's integrated diabetes program based in self management diabetes education and social support for Type 2 and gestational diabetes. The gestational diabetes program was recently funded by the Arizona Department of Health Services diabetes program to develop a gestational diabetes curricula for Promotoras, which will support Promotoras in providing on-going education and social support about gestational diabetes to pregnant women.

Gestational Diabetes Program

Mariposa Community Health Center-*Platicamos Salud* (Let's Talk Health) and Carondelet Health Network

Gestational Diabetes Background

Gestational diabetes mellitus (GDM) is insulin resistance that is first diagnosed during pregnancy. GDM is associated with increased short term and lifetime risks for both mother and baby. Short term risks include macrosomia (large baby), shoulder damage during delivery, low blood glucose levels at birth, an increased risk for breathing problems and for still birth. There is an increased lifetime risk to both mother and baby for the development of glucose intolerance, obesity and type 2 diabetes. GDM is typically diagnosed between the 24th and 28th week of pregnancy. Treatment for GDM aims to control blood glucose levels through diet, blood glucose monitoring, special meal plans, and physical activity. If necessary, daily blood glucose testing and insulin injections or oral medication may be used to achieve glycemic control.

Cumulative Program Participation

- During program years 2004-2008, a total of 104 pregnant women participated in the gestational diabetes program. An intake questionnaire was implemented by a Promotora with 89 prenatal participants. A post partum follow-up interview was conducted with 69 participants via phone call or a hospital visit.

Gestational Diabetes Program Participation 2004-2008					
Program Year	2004-2005	2005-2006	2006-2007	2007-2008	Total
Total Participants	1 (1%)	36 (34%)	50 (48%)	17 (16%)	104

Program Initiation and Program Visit History

- Gestational diabetes is typically diagnosed between the 24th and 28th week of pregnancy.
- Participants initiated the gestational diabetes program at an average of 28 weeks gestation, with a range in program initiation of 6 to 38 weeks gestation. Pregnant women with previous diagnosis of GDM and or a diagnosis of diabetes type 1 or 2 typically entered the program earlier in their pregnancy.
- Women entering the program early in their pregnancy are typically women diagnosed with existing diabetes (type 1 or 2) or a previous diagnosis of gestational diabetes.
- Participants averaged 5 one-on-one clinical and group visits to the program with a range of 1 to 18 visits.

Gestational Diabetes Program Program Initiation and Visit History 2005-2008 N=97	
Gestational week of program intake, mean (SD)	28 (6.9)
Range in weeks (min-max)	6-38
Number of gestational program visits, mean (SD)	5 (2.9)
Range in number of visits (min-max)	1-18

Gestational Diabetes Program

Mariposa Community Health Center-*Platicamos Salud* (Let's Talk Health) and Carondelet Health Network

Participant Demographics

- Participants are predominately Hispanic women of Mexican descent with an average age of was 34 years and a range in age from 19 to 46 years.
- At least half of all program participants are between the ages of 20 and 34 years.
- For most participants (80%) this is at least their second pregnancy. Multiparous women averaged less than 2 children with a range of 1 to 5 children.
- Half of all participants have less than a high school education, and one-third have completed elementary school only.
- 20% of participants have attended some college and 23% are college graduates.

Access to Health Care

- Less than one-quarter of participants have access to employer-based health insurance.
- 43% of participants depend on public health care access.
- More than one-third of gestational women do not qualify for public health insurance and have either no access to an on-going source of prenatal care or utilize the community health center sliding scale mechanisms to maintain prenatal care.

Diabetes Risk Characteristics

- 17% of participants have been previously diagnosed with either type 1 or type 2 diabetes.
- 18% have had gestational diabetes with a previous pregnancy, while 43% are unsure if they have been diagnosed with GDM with a past pregnancy.
- 75% of participants have a family history of diabetes.

Gestational Diabetes Program Participant Demographics and Diabetes Health History 2004-2008	
Total	104
Age, y	
Range	19-46
Current age, mean (SD)	34 (5.7)
Age Distribution	
<20 years	1 (1%)
20-34 years	52 (50%)
>35 years	51 (49%)
Ethnicity, no. (%)	
Hispanic	99 (99%)
Anglo	1 (1%)
Highest Level of Education no. (%)	
Elementary	33 (33%)
Less High school	16 (16%)
High school graduate	6 (6%)
Some College	20 (20%)
College Graduate	23 (23%)
Access to Health Care no. (%)	
Private	24 (23%)
Public (Medicare/AHCCCS)	43 (42%)
Community Health Center (<i>sliding scale</i>)	27 (26%)
None	8 (7%)
Diabetes and Pregnancy History	
Participants with first pregnancy	21 (20%)
Live births (multi-parous), mean (SD)	1.7 (1.3)
Range	1-5
Previously diagnosed with diabetes	17 (17%)
Type 1	2 (12%)
Type 2	5 (31%)
Type missing	10 (58%)
Previously diagnosed with GDM	18 (18%)
Unsure of a diagnosis	43 (43%)
Previous birth weighing over 9lbs	17 (17%)
Unsure of baby's weight	43 (41%)
Family history of diabetes	75 (72%)

Gestational Diabetes Individual and Group Sessions to Improve Glycemic Control

Individual and group sessions assist participants in attaining the knowledge and skills necessary to achieve glycemic control. Participants learn to develop a meal plan, increase physical activity and use a glucometer to test blood glucose, and in some cases learn how to self-administer insulin.

Gestational Diabetes Program

Mariposa Community Health Center-*Platicamos Salud* (Let's Talk Health) and Carondelet Health Network

Gestational Diabetes Care Plan

Gestational diabetes management aims to control blood glucose levels through dietary modification, monitoring, meal plans, and physical activity. If necessary, insulin injections or oral medication may be used to achieve glycemic control. A change in treatment plan indicates the program's responsiveness to participants' individual needs to achieve glycemic control. All program participants work with the certified diabetes educator and Promotora to establish a meal and physical activity plan.

Diabetes Care Plan Outcomes

- More than half of all participants maintained adequate glycemic control through dietary modification only.
- More than one quarter utilized daily injectable insulin to maintain glycemic control, and slightly more than one-tenth self-managed their diabetes through oral medication in conjunction with diet.
- Of those participants who initiated the program with a plan to maintain glycemic control through diet only, 4% moved to insulin and or oral medication.
- Of those women who began the program with a diabetes care plan of oral medication, one moved to insulin.
- Of the 23 women who started the program on insulin, one moved to diet only.
- 15 women are unaccounted for at post-partum.

Birth and Delivery Outcomes

The main birth outcome measured was a healthy delivery weight between 5.6 and 8.9 pounds and the ability for the mother to birth through non-surgical vaginal delivery.

- The majority of births were in the expected healthy range and averaged 7 pounds and ranged from 4 pounds (which is considered very low birth weight) to 10.9 pounds.
- 6 % of births were considered at least low birth weight and 8% of babies were born over 9 pounds which is considered a risk factor for overweight and diabetes for both mother and child.
- One-tenth of births were premature births.
- GDM is associated with an increased likelihood of a cesarean section, among those participants with a previous live vaginal birth, 18 (43%) had a cesarean section for the first time with this birth.
- Throughout program years 2004-2008 there were 3 miscarriages among women with a previous diagnosis of some type of diabetes. There were 2 infant deaths among mothers with no previous diagnosis of diabetes.

Gestational Diabetes Program Gestational Diabetes Care Plan Outcomes 2004-2008

Gestational Diabetes Care Plan	Baseline N=89	Post Partum N=69
Diabetic Diet (no medications)	56 (62%)	37 (53%)
Insulin	23 (25%)	22 (31%)
Oral	10 (11%)	10 (14%)

Gestational Diabetes Program Birth Outcomes 2004-2008

Baby's Gender	
Girl	48 (54%)
Boy	40 (45%)
Birth weight, mean (SD)	
Range in birth weight (min-max)	7 (1.1) 4.0-10.9
≤ 5.5 lbs	6 (6%)
5.6-8.9 lbs	80 (85%)
≥9.0 lbs	8 (8%)
Other birth outcomes	
Premature birth (<i>born > 21 days before estimated date of delivery</i>)	10 (10%)
Miscarriage	3 (3%)
Infant death ^a	2 (1%)
Delivery Type	
Non-surgical vaginal delivery	N=93 52 (55%)
Cesarean section	41 (44%)

A. Defined as perinatal mortality (death within first 28 days of life).

Steps to a Healthy Family

DOMAIN

Patient / Family

HEALTH FOCUS

Diabetes, Obesity

OBJECTIVES

Diabetes: Improve glycemic control through improved self-management practices and family support.

Obesity: Decrease the risk factors for obesity through clinical care, family interventions, nutrition education, and physical activity opportunities.

METHODOLOGY

Parent and child physical activity and nutritional behaviors were measured at baseline, and at 6 months of program. A physical exam, a full lipid panel and a random blood glucose test was conducted by a provider for each child and parent to determine any physical activity restrictions as well as involve a provider in health monitoring of participants. Knowledge and behavior indicators are measured at baseline and program completion, with the exception of lipids and blood glucose which are measured at baseline only. Hypothesis testing on categorical responses was conducted using the Exact McNemar's test for proportions or the Wilcoxon sign-rank test as appropriate. Variables that were not normally distributed were treated as categorical. Continuous responses were tested with paired t-tests. The overall level of statistical significance was adjusted (Sidak corrected alpha = 0.001) to account for multiple comparisons.

National Core Performance Measurement:

I-6.1, Suppl. O-1 and O-2,
O-1.1-O-1.5, O-2.1, O-5.1, O-6.1-O-6.3

Partner

MCHC-Placticamos Salud (Let's Talk Health) School Health Coordinators Committee

The Steps to a Healthy Family Program was initially designed as a year long, family-based multidisciplinary approach to address childhood obesity. This program targets 3rd through 5th grade children identified by school nurses with body mass indices at or above the 95th percentile. Sessions are facilitated by a nutritionist, behavioral specialist, and physical educator. Each phase is 12 weeks long and 2-hours each week. Weekly sessions are attended by both the child and at least one parent, and often times other siblings and extended family members do participate. Families are engaged in dynamic learning activities to improve family communication, healthy eating and physical activity. This program also addresses the home, school and community environments with the intention of enabling families to advocate and implement healthy policies in these respective domains.



Families cook healthy snacks and get moving through family games!

Orientation Night

Children are invited by the school nurse through an invitation letter to the parent to an orientation night for the Steps to a Healthy Families Program. The orientation night is a fun event with games, music, healthy snacks and a presentation about the program. Families are asked to sign up, and are explained that the program is for both the child and at least one parent.



Health is a Family Affair: Siblings, cousins and other extended family members join participants in play and learning!

Steps to a Healthy Family

Mariposa Community Health Center-*Platicamos Salud* (Let's Talk Health)

Healthy Families Themes and Activities

Evidenced-based curricula have been adapted for bilingual, Mexican and Mexican-American families. Initially Healthy Families was organized into four , 90 day phases attended by both parent and child. Process evaluation demonstrated a need to reduce the program to two, 90-day phases.

Phase 1 : *Family Awareness and Communication*

- Participants engage in discussions about current approaches to healthy nutrition for families.
- Families explore physical activity through interactive games they can do as a family in the home, after school and on the week-ends. Weekly physical activity logs are incorporated.
- Families learn about positive reinforcement, emotions and eating, identifying over eating triggers, strategies for family communication, self talk and self image and self esteem exploration.
- Parents are encouraged to enroll children in weekly structured school or community-based sport or activity.



Families get moving through games they can play together at home and with friends!

Phase 2: *Family Readiness to Change and Individual Goal Setting*

- Families are encouraged to put into motion information acquired about healthy nutrition and family-based physical activity and game time. Children and parents set weekly goals to be discussed at the next session. Barriers and challenges are acknowledged and group think helps participants try again the next week.
- Families learn strategies to increase fruit and vegetable intake, replace soda and sweet drinks with milk and water products, family meal time and meal planning.
- Stations are organized to move families through one-on-one sessions with behavioral health specialist, nutritionists and physical educator to individualize plans and support mechanisms.
- Physical activity is reinforced with structured martial arts program offered 30 minutes of each 2 hour session.

Lifetime Behavioral Change and School-Community Advocacy

- Media literacy is reinforced and families are challenged to assess elements of the school and community environment that encourage and/or discourage physical activity and healthy eating.
- Advocacy for a healthy school environment is encouraged through parent participation in parent-teacher organizations, and by attending school board meetings and volunteering in school or community efforts to improve health and wellness.



Inter-generational support for healthy nutrition, Moms and Grandmothers support each other in healthy choices!

Steps to a Healthy Family

Mariposa Community Health Center-*Platicamos Salud* (Let's Talk Health)

Participation

- 71 families initiated the program and 48 families completed the program.
- 32 parents and 24 children completed an intake questionnaire.
- Parental socio demographics information , health status and access to health insurance are proxies for child health risk.

Parental Demographics

- Average parental age is 38, with a range in age of 26-52 years.
- Mothers were the primary parental participant.
- The majority of parents were Hispanic of predominately Mexican heritage.
- More than half of parents have less than a high school education.

Parental Health Status

- The average BMI for parents was 26 with a range of 23-45.
- 22% of parents have been told by their provider they have high cholesterol, 9% with high blood pressure and 6% of parents have been diagnosed with diabetes.
- 13% of parents are current smokers.
- 38% of parents have a family member with diabetes.

Access to Health

- 67% of parents have either no health insurance or rely on state and/or federally funded mechanisms for the uninsured and underinsured.
- Half of all parents reported they had someone they considered their doctor.
- More than one tenth of parents did not seek medical attention at least once in the last year due to cost.

Child Participants

- The average age of children was 10 years , with a range of 6-12 years.
- BMI calculated for age and gender averaged 29 and ranged from 12-35.

Healthy Families Program Demographic and clinical characteristics		
No (%) of Parents and Children Participants		
Characteristic	Parent N=32	Child N=24
Age, Mean (SD), years	38 (5.9)	10 (1.5)
Range in Age, years	26-52	6-12
BMI, mean (SD)	26 (5.2) ¹	29 (5.9) ¹
Range (min-max)	23-45	12-35
Health Status		
Asthma	0 (0)	—
High Cholesterol	7 (22)	—
High Blood Pressure	3 (9)	—
Diabetes	2 (6)	—
Diabetic Family Member	12 (38)	—
Current Smoker	4 (13)	—
Gender		
Male	5 (16)	15 (62)
Female	26 (84)	9 (37)
Ethnicity		
Hispanic	29 (96)	—
White (Non Hispanic)	1 (3)	—
Education		
Less than High School	17 (54)	—
High School Graduate	5 (16)	—
Some College	9 (29)	—
Access to Health Care N=28		
Private	9 (29)	—
Public	9 (29)	—
None	10 (35)	—
Have a medical home	17 (54)	—
Did not seek medical attention due to cost (last 12months).	4 (12)	—

¹ BMI measurements are baseline measurement with N=13 parents and N=20 for children.

Steps to a Healthy Family

Mariposa Community Health Center-*Platicamos Salud* (Let's Talk Health)

Behavioral Changes at Home

- Several positive outcomes have been demonstrated, including a decrease in weekly soda intake and television viewing among graduating parents.
- Both parents and children increased their weekly vegetable intake and improved their knowledge about the number of fruits/vegetables needed for health benefits.
- Both parents and children reported an increased number of days per week a child eats breakfast at home and decreased number of days the family dines out at fast food.
- Parents report eating dinner as a family seated at the same table four nights a week.
- Children **significantly increased** the number of days they help prepare dinner with a parent.
- There was no change in the number of days parents played an active game with their children, which may be an area the program could concentrate in the future.

Behavioral Changes at School

- Children did not decrease the number of days they chose pizza, nachos or french fries at school, this could be that school do not have an alternative choice for students. Children chose from the salad bar and fresh, not canned fruit, more often.

Healthy Families Program				
Change in Average Weekly Nutritional Consumption and Physical Activity ^a				
Behavior Change ^b	Parent		Child	
	Pre N=30	Post ^c N=11	Pre N=23	Post ^c N=13
Average weekly nutritional intake				
Soda	3 (3.4)	2 (2.0)	---	---
Vegetables (non potatoes)	3.5 (2.3)	4.7 (1.9)	7.8 (9.3)	17 (18.9)
Fresh fruits	6.3 (9.4)	5.1 (2.2)	20 (27)	9 (13)
Family nutritional behavior in the home				
Child eats breakfast at home	4 (5.8)	4.8 (2.4)	2.8 (2.4)	4.3 (2.6)
Family dines out at fast food	1.7 (.92)	1.4 (.68)	1.3 (.97)	1.4 (1.0)
Family eats dinner together at same table	3.9 (2.3)	3.8 (2.4)	3.6 (2.8)	4.5 (2.7)
Child helps prepare dinner	--	---	1.6 (2.2)	3.7 (1.9)
Child's School Cafeteria Choices				
Pizza/nachos/french fries	--	---	1.4 (1.2)	1.4 (1.5)
Salad bar	---	---	2.6 (1.9)	4 (2.4)
Fresh fruit (not canned)	--	---	3.6 (3.3)	4.4 (1.8)
Family Physical Activity (PA)				
Television viewing (hours)	10.3 (10.1)	3 (4.2)	2.5 (2.0)	1.6 (.80)
Days parent play active game with child	1.5 (1.9)	2 (2.2)	1.2 (1.8)	1.2 (1.2)
Parents who participate in PA for at least 20 minutes 3 times a week	13 (54%)	6 (5%)	--	---
Knowledge about Nutrition and PA				
Weekly number of fruits/vegetables needed for health benefits.	4.4 (1.3)	5.7 (2.2)	4.5 (1.5)	5 (2.0)
Daily minutes of PA child needs for health benefits.	61 (44)	42 (14)	82 (78.8)	48 (18.0)

^a Post program measures were taken upon completion of the 6-month program. ^b All values are self reported weekly averages reported in either number of days or number of food/beverage depending on question (standard deviation).

Steps to a Healthy Family

Mariposa Community Health Center-*Placticamos Salud* (Let's Talk Health)

Parent Advocacy

School

- 85% (23) of parents think there is a way to voice their concerns about inadequate services or resources at their child's school.
- 79% (24) of parents express being comfortable voicing their concerns and do so more than half or all the time.
- Parents voice concerns with the following school personnel: principal, teachers, secretary, counselor and school district administration.

Community

- 41% (13) of parents say there is a park, playground or open space within walking distance of their home and 22% (7) are unsure.
- 54% (16) of parents perceive the park or playground closest to where they live as safe during the day and 36% (11) of parents are unsure.
- 66% (16) of parents report that a store, market, or fruit stand to buy fruits and vegetables does not exist within walking distance of their home.

Santa Cruz County Family Health Advocacy Forum

- In 2008, the School Health Coordinators Committee developed a collaborative of county health and social service agencies and university partners to increase leadership and advocacy skills among all agencies and the families served.
- "Hero Families" were selected by the collaborative, based on demonstrated interest in making changes in their community to participate in the one-day forum.
- 3 Healthy Family families were selected and developed advocacy plans related to improving the built environment and making their neighborhoods more walkable.

Access to Health Care and Prevention Services

Healthy Families program has identified several uninsured or underinsured children and parents. At intake, program staff work with families to identify publicly funded and sliding scale mechanisms to ensure health access. Program staff have connected participants to providers who monitor their progress toward prevention of chronic disease.

It is programmatic policy that each child and parent have a health insurance mechanism to provide care throughout their participation in the program. Program staff continue to work with providers to ensure consistent follow-up on all participants.

Healthy Families Parent Testimonials

"All family members have become more active and without using restrictive or dangerous eating plans, my daughter has dropped from a size twenty to a size fourteen"

"I lost 40 pounds before my surgery and was able to recover much more quickly than expected due to the increase in physical activity over the past months"

"We are getting together to exercise for about 45 minutes a day, we are having a lots of fun"

"My girl and I went to see a dietitian, we are very happy eating a lot of healthy foods"

"Our boy asked us to enroll him in a soccer team, we did"

Community Outreach and Health Fairs

Core Performance Measure: I-6.1, Suppl. O-2

DOMAIN

Community

HEALTH FOCUS

Asthma, Obesity & Diabetes

OBJECTIVES

Asthma: Increase knowledge and behaviors related to asthma triggers in the home and community (second-hand smoke, pesticides, allergens) and increase awareness of asthma in the community

Diabetes: Increase identification of DM and support self-management behaviors by conducting community-based DM screening and increasing community awareness of DM self-care

Obesity: Reduce sedentary behaviors and improve nutritional intake through increased community awareness, nutrition education, and physical activity opportunities.

METHODOLOGY

Partners document events and approximate number of community members participating. They document the number of screenings and type and referrals to providers if any. It is assumed that all participants receive health information and information about available programs and services.

MEASURES/DATA SOURCES

1. Name/Location of Event
2. Approximate Participation
3. Screenings/Referrals

PARTNER

MCHC-Platicamos Salud (Let's Talk Health)

Steps partners collaborate, and organize a variety of health-related events. Activities include the promotion of the event and recruitment of participants, delivery of educational information, screenings and referrals. Brief one-on-one education also takes place. These events connect people to local health resources. Health fairs in Southern Santa Cruz County serve a population with little or no access to health care and services. For many participants these events are the only venue to receive immunizations and screenings, and become aware of community health issues.

Health fairs are important to this community because they provide a culturally appropriate environment for health promotion. Participants are able to receive information and services because they can relate to other participants and to the *Promotoras* who speak their language and are supportive. The setting includes the use of popular music, and healthy foods that are consistent with cultural preferences and local availability. Some of the health fairs that take place in Santa Cruz County include:

- US-Mexico Border Health Commission Binational Border Health Fair
- Annual Reality Based Haunted House
- National Senior Health and Fitness Day
- National Women's Health Week
- Santa Cruz Health and Safety Fair
- Rio Rico Community Days Fair
- Patagonia Rock for Health Fair

Community Health Outreach and Health Fairs Participation

	2004	2005	2006	2007	Total
Events	4	6	5	2	17
Participants	~ 600	~ 318	~1333	144	2108
Students/ Youth	ND	~ 400	~360	ND	~760
Screenings*	ND	150 (47%)	~269 (20%)	ND	~419 (21%)

Percent indicates adult participants receiving service. ND=data not collected

Nutrition and Physical Activity with Seniors

National Core Performance Measure: I-6.1

DOMAIN

Community

HEALTH FOCUS

Obesity & Diabetes

OBJECTIVES

Diabetes : Increase identification of DM and support self-management behaviors by conducting community-based DM screening and increasing community awareness of DM self-care.

Obesity: Reduce sedentary behaviors and improve nutritional intake through increased community awareness, nutrition education, and physical activity opportunities.

METHODOLOGY

Evaluation measures are descriptive and include documentation of participation and opportunities for nutrition and physical activity education and activity. This program is unique to seniors in that it provides individual coaching in increasing physical capacity, including balance and social support in community-based centers throughout the Steps county.

MEASURES/DATA SOURCES

1. Participations
2. Pictures

PARTNERS

MCHC-Platicamos Salud (Let's Talk Health)
Movement with Meaning: Fifty-Plus Lifelong Fitness Program
Patagonia Senior Center
TNT Sharon Scofield

Steps Santa Cruz programs provide physical activity opportunities and nutrition education to seniors through five innovative and community specific approaches. These programs approach senior health and wellness from culturally and linguistic appropriate ways adapting to both variances in age, health limitations, diet preferences and styles of physical activity.

Movement with Meaning: Fifty-Plus Lifelong Fitness Program

An average of 287 seniors ranging in ages of 50-70+ years experience weekly, 60-minute physical activity classes with a certified Lifelong Fitness Ambassador and Physical Trainer. Participants were from 3 area Senior Centers and one community fitness center located in 3 different communities. Participants range in fitness levels of physically dependent, independent, fit and elite. In a safe and motivating environment participants were encouraged to be physically active through individual and group games designed to increase cardio respiratory function, upper and lower body flexibility and strength, and most importantly, balance. Special attention was paid to successful aging, body movement, diet, balance and flexibility and the connections between health and fitness.



Balance



Confidence

- An average of 65 community members attended weekly classes.

Nutrition and Physical Activity with Seniors

Mariposa Community Health Center-Placticamos Salud, Movement with Meaning, Patagonia Senior Center and TNT Sharon Scofield

Physical Activity and Dance with Seniors

In program years 2004-2006, Promotoras from Steps lead agency offered Spanish speaking seniors from two area senior centers. Educational material from the evidenced-based *Pasos Adelante* curriculum was adapted by *Promotoras* to meet the unique needs of nutrition and health of Mexican seniors. Class participants received approximately 20 minutes of adapted nutrition education and 30 minutes of light stretching and group dancing set to a variety of popular Latin music, like the *cumbia* and *salsa*. Classes were very social and participants enjoyed returning each week to the familiar faces of their senior community center members and local promotora.

- An average of 20 seniors from two communities participated in bi-monthly events in two senior centers.

Nutrition Education with Seniors Program

Steps lead agency, nutrition outreach coordinator, provided weekly nutrition classes at the three area senior centers, a local gym and a community food bank. Classes included healthy eating habits, meal planning, and food demonstrations and placed special importance of the health benefits of including more fruits and vegetables in a senior diet. Lessons focused on consuming fruits and vegetable of the Americas due to the availability and low cost. Activities for this program were tracked for program year 2005-2006 only.

- An average of 74 senior citizens participated from three communities. Depending on the community and time of year, participation ranged from 47 to 144 seniors .

Senior Citizens of Patagonia – Rural Frontier Area

In 2008 Tai Chi style classes incorporating strength and balance movements were initiated in two area locations. An average of 100 classes were offered annually to an average of 15 senior participants.



Flexibility, Endurance and Strength!

Total Participation in Physical Activity Opportunities Among Santa Cruz County Senior

- Since 2005 an average of 346 seniors from 5 cities participated in one of approximately 500 annual physical activity and nutrition education opportunities.



Resistance, strength and joy!

School Health Index Workshop and School Wellness Policy

Core Performance Measure: I-6.1

DOMAIN

School

HEALTH FOCUS

Asthma, Diabetes, Obesity

OBJECTIVES

Asthma: Decrease the incidence of asthmatic episodes of students by increasing capacity of school personnel to respond appropriately, and developing school policies that reduce asthma triggers and support self care.

Diabetes: Improve school nutrition, physical activity and diabetes awareness through increased capacity of school personnel, student programs, and development of related policies.

Obesity: Improve school nutrition and physical activity through increased capacity of school personnel, student programs, and the development of related policies.

METHODOLOGY

Evaluation focuses on the process and completion of the SHI, the development and implementation of action plans, and policy changes that took place as a result of the process. Workshop participation, score cards and action plans were collected at the time of the event. Progress on the implementation of the action plan and subsequent policy change was measured through a questionnaire sent to the school health index team leader at one-year post SHI workshop.

MEASURES/DATA SOURCES

1. Schools and team makeup
2. Overall score cards
3. Action plans
4. One year follow-up
5. Action plan implementation
6. Policy changes

PARTNERS

School Health Coordinators Committee

The School Health Index (SHI) was developed by the Centers for Disease Control and Prevention to assist schools in creating an environment conducive to student health. The SHI is a self-assessment and planning tool for elementary, middle and high schools aimed at improving student health, nutrition, and physical activity. The SHI consists of eight modules which should be answered by an inter-disciplinary team of school administrators, teachers, school nurses, food service workers, parents and students. The eight SHI modules assess the following areas:

- Health Education
- Physical Education and Physical Activity Programs
- Nutrition Services
- Health Services
- Counseling, Psychological and Social Services
- Health Promotion for Staff
- Family and Community Involvement

Modules are scored and allow the team to: Identify the strengths and weaknesses of their school's health promotion policies and programs; Develop an action plan for improving student health; and Involve teachers, parents, students, and the community in advocating for the improvement of school programs and policies. The SHI is an initial step in the process of assessing the school environment and creating policies which promote healthy behaviors and increase student capacity to learn, reduce absenteeism, and improve physical fitness and mental alertness.

In 2006, collaborators of the Steps School Health Coordinators Committee implemented a one-day SHI Workshop as a proactive response to the difficulty experienced in identifying school health teams with enough time and personnel available to complete and implement the SHI. The SCHCC worked with superintendents from both districts to make Steps-SHCC resources available to encourage the full participation of administrative, teaching, nursing, counseling and food service personnel. Superintendents and District level staff were crucial in supporting this effort and made themselves available on the day of the event, both by phone and in person to provide guidance in SHI modules specific to school and district wide policy issues.

With the use of wireless laptop computers, each SHI team created an on-line SHI account hosted on the Healthy Youth: School Healthy Index website. School teams worked through all 8 modules which were simultaneously entered into the online SHI account. A score card identified strengths and weakness used by SHI teams to develop at least two action plans to be implemented within one school year.

Learn more:

Healthy Youth : School Health Index
<https://apps.nccd.cdc.gov/shi/default.aspx>

School Health Index Workshop and School Wellness Policy

School Health Coordinators Committee

School District Participation: SHI Workshop

- 14 (93%) of schools from 2 of 3 Santa Cruz County school districts completed the SHI and developed at least 2 school health action plans to be implemented within one school year post SHI Workshop
- 9 elementary / 4 middle/high schools / 1 alternative high school
- 63 school/parent/ student participants.

School District A

- 5 of 5 schools
- 3 elementary and 2 middle/high schools
- 34 school staff, parent s & student

School District B

- 9 of 10 schools
- 6 Elementary / 2 middle/high / 1 alternative high
- 29 school staff and parents
- 4 SHI school-based internal coordinators were identified

SHI Workshop Participation by Position	District A	District B
	TOTAL Schools N=5	TOTAL Schools N=9
Parents	5	3
Health Office Aide	5	-
Administrative Office	4	0
School Counselor	3	6
Teacher	3	4
Teacher/Coach	2	-
Physical Education Teacher	1	6
Physical Education Aide	1	-
Nurse	1	3
Food Service Manager	1	1
Assistant Superintendant	1	0
Students	0	5
Position unidentified	7	0
Total Participants	34	29

School Personnel Experience with School Health Index

“The state-mandated AIMS testing has greatly reduced our flexibility and creativity in the classroom, it is important to keep a scheduled time for health issues, speakers, and field trips relating to health careers. SHI emphasized this issue and keeps health in the forefront, especially with our teen moms.”

Alternative High School

“It was difficult to meet with everyone in the group. We met twice only and several members were missing.. I think this would be a full-time job implementing these changes. It would be necessary to have help from the principal and school board.”

High School

School Health Index Workshop and School Wellness Policy

School Health Coordinators Committee

Elementary Schools Participation

- 2 School districts
- 9 (100%) elementary schools
- 28 (44%) elementary school staff
- 2 school district level administrators
- 2 food service general managers



Interdisciplinary School Health Teams

Overall Score Card Outcomes

- 100% of elementary schools scored **medium high and high** in nutrition services.
- Eight of nine (88%) elementary schools scored **medium high and high** in School Counseling, Psychological and Social Services and School Health Policies and Environment.
- 4 (44%) scored **low** in Health Promotion for Staff.
- 3 (33%) scored **low** in health education module.

School Health Index Workshop Cumulative Score Cards Elementary Schools (N=9)

MODULES	Low		Medium		High
	0-20%	21%-40%	41%-60%	61%-80%	81%-100%
1 School Health Policies and Environment			1	7	1
2 Health Education	2	1	4	1	1
3 Physical Education and Physical Activity Programs			2	4	3
4 Nutrition Services				7	2
5 Health Services			1	6	2
6 Counseling, Psychological and Social Services			1	3	5
7 Health Promotion for Staff		4	4	1	
8 Family and Community Involvement		5	1	2	1

Number inside boxes represent the quantity of schools scoring in percentile

School Health Index Workshop and School Wellness Policy

School Health Coordinators Committee

Middle and High School Participation

- 2 school districts
- 5 (83%) middle and high schools
- 28 (44%) middle/high school staff and parents
- 2 district level administrators
- 2 food service general manager



Healthy Schools Come Together

Overall Score Card Outcomes

- 100% middle schools and high schools scored **medium high to high** in Module 1 School Health Policies and Environment.
- Three of five (60%) of middle and high schools scored **medium to medium high** in the areas of Nutrition services, School Health Services and School Counseling, Psychological and Social Services.
- Three of five (60%) of middle schools and high schools scored **low** in Health Education and Family and Community Involvement modules.

School Health Index Workshop Cumulative Score Cards Middle and High school (N=5)

MODULES	Low		Medium		High
	0-20%	21%-40%	41%-60%	61%-80%	81%-100%
1 School Health Policies and Environment				4	1
2 Health Education	2	1	1	1	
3 Physical Education and Physical Activity Programs		1	1	1	1
4 Nutrition Services			2	3	
5 Health Services			2	3	
6 Counseling, Psychological and Social Services			1	3	1
7 Health Promotion for Staff		2	2	1	
8 Family and Community Involvement		3	1	1	

Number inside boxes represent the quantity of schools scoring in percentile.

School Health Index Workshop and School Wellness Policy

School Health Coordinators Committee

School Action Plans

On the day of the workshop, each school created a school health index account on the Center for Disease Control and Prevention (CDC) Healthy Youth: School Healthy Index website. With the use of wireless laptop computers, school responses for the eight SHI modules were entered into the confidential database by the University of Arizona, College of Public Health evaluation team and Santa Cruz County Steps Team. School health teams were able to log in to their SHI account, to view and modify score cards and action plans as they proceed at any time during the school health policy planning process. Score cards, strengths and weakness and action plans can all be printed off and used in a variety of settings, including meetings with school administration, school board members, parent and teacher groups. Below are selected school health policy themes derived from the action plans generated by SHI teams on the day of the workshop.

School Health Policy

Adopt a comprehensive school health curriculum.

Mandate health education in all grades.

Create a permanent position for a school counselor.

Develop a “Kids Walk to School” Program.

Mandate the training and implementation of the American Lung Associations’ Open Airways asthma curriculum with staff, students and parents.

Develop paid position for parent to conduct health and nutrition outreach.

Provide tobacco prevention education for staff and students.

Strengthen School Health Advisory Councils

Develop and strengthen School Health Advisory Councils and increase involvement from school site councils. Develop a sub-committee that explores funding opportunities for health and wellness and presents these opportunities to school administration and school board.

Increase Parent Involvement

Develop school-community involvement programs to increase parent-school personnel interactions around health and education issues of students. Develop school-community teams that participate in community health events, like March of Dimes Walk, Wellness Fairs, create homework assignments which involve parents and students. Collaborate with area agencies to offer parenting classes at school. Create a School/Parent Newspaper.

Develop and Support Opportunities for Employee Wellness

Incentivize school employee wellness clubs through adoption of healthy cafeteria food items. Designate space for school-site fitness classes, broadcast Health-Tip of the Day, create a school health bulletin board.

Encourage professional development through continuing education opportunities in health and wellness curricula, primary prevention of chronic disease and strategies for working with special needs children. Make health resources available in literacy center or library for teachers and staff.

School Health Index Workshop and School Wellness Policy

School Health Coordinators Committee

SHI Action Plan Progress for School District A

- Four of five schools completed a SHI one year follow up questionnaire
- Three of four schools have met as a wellness group since they attended the SHI Workshop in Spring of 2005
 - These groups met an average 1.75 times, with a range of 1 to 4 meetings
 - An average of 4.75 people attended and varied from 5-8 people per wellness team.
- None of the schools made modifications to action plans since the SHI Workshop.
- Two schools reported planning to do one or more of the SHI modules in the future.

Successes

- A total of 13 Action Plans were reported on by schools
 - 8 plans were completed
 - 1 plan was partially completed
 - 2 plans were not completed
 - The status for 3 plans were unknown
- **Asthma staff training was successful in 2 elementary schools** and is planned to be repeated in 2007. In one school a registered nurse provided asthma in service at a staff meeting. In a third elementary school, **Parents asthma education**, and other health issues are provided through monthly parent newsletter published by the health office.
- **A play ground upgrade effort has been set in motion in one school.** School reported the playground now has a grass surface rather than the dirt and rocks the children played on previously. A parent/teacher committee is investigating methods of acquiring new playground equipment. They will apply for a grant from an organization called, KABOOM! They have consulted with a salesman from the company, "GameTime" who presented design options. They have discussed fundraising to be done in the spring, 2007 and hope that the new playground equipment will be in place by December 2007.
- **A resource room in the library was created in one school.** School reports that their literacy center now includes shelves of books that teachers may use for teaching character building to the children and the collection includes a limited number of books that address health or sports.
- **A crisis plan is in development**, staff members now have copies of emergency procedures and school has practiced lockdown drills and fire drills.
- **Integration of health education in all grades** and addressing health issues in general have been incorporated into one schools' school-wide action plan. School staff will discuss health curriculum specifically at a school staff meeting in the fall, 2006.

School Health Index Workshop and School Wellness Policy

School Health Coordinators Committee

Challenges in Implementing SHI Action Plan: School District A

- **Little progress was made in developing health safety council** in one elementary school. One SHI meeting was held during a monthly School Site Council.
- **Students were unable to help prepare school menus** in one elementary school due to difficulty working with the cafeteria managers and food service company.

What has occurred in your schools as results of the SHI?

“More focus on wellness”
Middle School

“We have started health and nutrition in k-5 classrooms. Students get a 30 minute mini lesson on nutrition, and how to be healthy. They really seem to enjoy it.”

“We have really made quite a few adjustments on birthday parties and holiday parties in the classroom. We encourage healthy snacks instead of the traditional cupcakes and juices. Students seem to enjoy the healthy snacks and believe it or not they don’t complain. As time goes by our school will improve on making this a healthy environment.”

Elementary School

“The staff was focused on critical issues and moved forward on the planning for improvements or the implementation of improvements.”

Elementary School

“End-of-year field day based solely of physical activity, More teachers incorporating activity into classroom routine, Preferred Activity Time has replaced food-based rewards, On-Going dialogue with staff and administration about the need for recess/ activity time, District-wide Elementary school track meet, On- Going discussion with Food Service re: food choices, implementation of Recess Before Lunch Policy”

“Each grade level has a copy of the MV Wellness Manual, which includes a copy of the distract Wellness Policy, ideas for non-food fundraising and ideas non-food incentives”

Elementary School

Source: SHI Action Plan One Year Follow Up Survey

School Health Index Workshop and School Wellness Policy

School Health Coordinators Committee

SHI Action Plan Progress: School District B

- Three of nine schools completed a SHI one year follow-up survey.
- 1 of 3 have met as a wellness group since they attended the SHI Workshop in Spring of 2005. This group met 2 times with 3 participants.
- Schools did not modify the completed SHI modules, one school reported they would repeat modules in the future.

Successes

- 8 SHI Action Plans were reported on by schools:
 - 2 plans were completed
 - 2 plans were partially completed
 - 4 were not completed
- **To encourage professional development in health education**, an alternative high school has partnered with the Steps lead agency, Mariposa Community Health Center (MCHC) to provide weekly presentations for parenting and health classes for students and weekly presentations to Even Start parents. Topics include nutrition, self esteem, STDs and HIV, Tobacco, Diabetes, Eating Disorders and Body Works.
- In this same school, **steps have been taken to establish a staff stress management program**. A planning period for educators has been established as well as staff restrooms and lounge.
- In an elementary school, **students have been encouraged to eat healthier** through numerous class presentations about nutrition, A first aid and personal hygiene program has also been completed in this school.

Challenges in SHI Action Plan Implementation

- A wellness team presented a **health improvement program to the school principal** which was well received by the principal but deemed unfeasible at the time.

What has occurred in your schools as results of the SHI?

“The two students who attended the initial conference with us gained confidence and improved their self-esteem as a result of their participation with adults. Both are now interested in our field trips and extra-curricular activities. Prior to the conference the students were isolated and shy.”

Alternative High School

“We haven't noticed much difference”

High school

“Students are trying to eat healthier but it's still a problem that is going to take time to correct”

Elementary School

Source: **SHI Action Plan One Year Follow Up Survey**

School Employee Wellness Program and Policy Efforts

Core Performance Measures: 1-6.1

DOMAIN

Worksite

DISEASE

Asthma, Diabetes, Obesity

OBJECTIVES

Asthma: Increase worksite knowledge about asthma, and develop and implement worksite policy that supports a healthy environment for asthmatics

Diabetes: Increase opportunity for employees with DM to follow self-management practices at work through increased availability of healthy foods and opportunities to engage in physical activity.

Obesity: Increase worksite awareness of the benefits of nutrition and physical activity, and availability of healthy foods and physical activity opportunities in the workplace.

METHODOLOGY

Evaluation methods are mainly descriptive and include reporting health risk appraisal baseline outcomes through a data sharing agreement between the local hospital responsible for collecting and analyzing these data and the Steps evaluation team. Aggregate data related lifetime risk for heart disease, diabetes, stress, depression and nutrition were reported for 522 participants. Process evaluation was implemented a one-time worksite wellness needs assessment which measured the perceived effectiveness of the HRA in raising awareness among staff about chronic disease strategies to promote healthy nutrition and physical activity among staff.

MEASURES/DATA SOURCES

1. Participation
2. Baseline health risk assessment

PARTNERS

School Health Coordinators Committee (SHCC) In collaboration with St. Elizabeth's of Hungary Hospital

In 2004, School Health Coordinator Committee piloted a district-wide wellness program for employees partially subsidized membership to local fitness facilities. In that same year, one school district implemented a school employee wellness day which provided blood glucose, cholesterol and body mass index screenings for 89% of school staff including, teachers, administrators, custodians and school aides. These efforts demonstrated to the School Health Coordinators Committee (SHCC) the interest among school employees for employee wellness screening and health promotion programming.

In 2005, the SHCC planned and implemented health risk appraisals (HRAs) and worksite wellness needs assessments in two school districts. The SHCC partnered with a local hospital who used a widely-used health risk appraisal software package to analyze a person's health history and current lifestyle habits and estimate health risk. School employees were invited during a staff meeting to complete a six part standardized health risk questionnaire to identify risk levels related to diabetes, heart disease, cancer, nutrition, stress and depression. On a separate occasion, employees were invited to receive clinical screenings which included fasting blood glucose, total cholesterol, weight, pulse, and blood pressure.

Health risk appraisal questions are derived from the following organizations/scales:

- American Heart Association (heart disease/12 questions)
- American Diabetes Association (diabetes/6 questions)
- Trait Anxiety Inventory (stress/19 questions)
- Beck Depression (depression/32 questions)
- American Diabetes Association (nutrition/12 questions)

Beginning in 2006 and continuing throughout the Steps initiative the SHCC developed several school employee health promotion and disease prevention strategies to target health risk priority areas among classified and non-classified staff. The SHCC also encouraged school personnel to translate health messages learned during the health risk appraisal process and other employee wellness opportunities into advocating for a healthier school environment. As a result of the HRA ,

School Employee Wellness Program and Policy Efforts

School Health Coordinators Committee

HRA Participation

- 2 of 3 School Districts
- A total of 522 staff participated from 18 total school sites, including personnel from the district office, bus barn, cafeteria and maintenance..
 - 20% of participants were men and 80% were women.
 - 65% of participants were aged 40-60 years.

Health Risk Appraisal Aggregated Data

- In District A , 37% of participating employees self reported moderate to high risk for heart disease, 45% were at high risk for diabetes, 58% were at mild risk for stress while 71% of respondents were at mild to moderate risk for depression.
- In District B, 32% of participating employees were at moderate to high risk for heart disease, 43% were at high risk for diabetes, 58% were at mild risk for stress while 64% of respondents were at mild to moderate risk for depression.
- 6.5% of participating employees have been diagnosed with heart disease, 13% with high cholesterol and 7.5% have diabetes .
- 8.5% of participants participating in the clinic screening portion of the HRA had an elevated fasting blood glucose.

Worksite Wellness Needs Assessment

- 95% of staff reported the HRA provided them with information to make a behavior or lifestyle change.
- 92% reported HRA motivated them
- 95% reported the HRA information was useful

Factors that help employees be more active

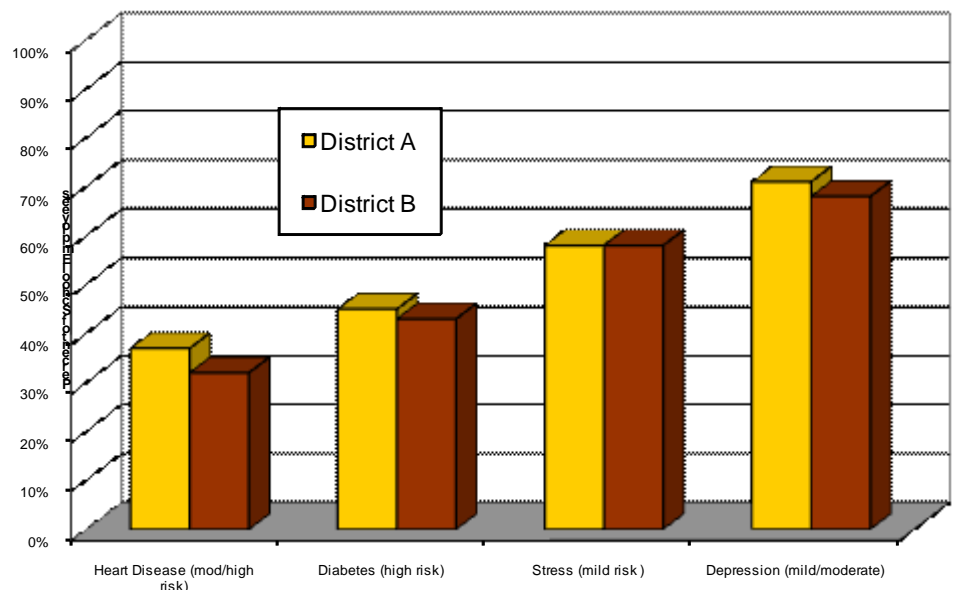
- One hour activity session
- Job site activities
- Access to fitness facility

Preferred Physical Activity

- Moderate walking/hiking
- Aerobic(Step/Spin/Jazzercise)
- Yoga/Pilates/Tai Chi

Source: Employee Wellness Assessment Survey

Health History and Current Lifestyle Habits
Estimate Risk by School District, 2005



School Employee Wellness Program and Policy Efforts

School Health Coordinators Committee

Employee Wellness Programming Efforts

- In Year 2005, the SHCC **established priority wellness programming** for the following disease areas: *diabetes, heart disease, stress and depression*. Worksite wellness assessments established a need for onsite, 60 minute, moderate level aerobic and stress reducing classes. The SHCC collaborated with the Office of the Superintendent in both Districts to **acquire school space for after school wellness efforts** for staff and parents.
- To increase buy in for school employee wellness members of the **SHCC presented the HRAs risk prevalence results** to District Superintendent Office, Administration staff and the Arizona School Board Association Insurance Trust (ASBAIT) the health insurance organization ensuring Arizona school classified staff.
- Throughout 2006-2008, the SHCC **initiated the following school-based employee wellness classes** :
 - Weight Watcher (2 school sites/2 Districts)
 - Active Living Everyday/Healthy Eating Everyday(2 school sites/2 Districts)
 - Fit At Any Size (2 school sites/2 Districts)
 - Yoga (3 school sites/2 Districts)
 - Tai chi (1 school site/2 District)
 - Aerobics (1 school site/1 District)
 - Pilates (1 school site/1 District)

Employee Wellness Policy Efforts

2004-2005

- The Arizona School Board Insurance Trust implemented a “Call-a-Nurse” option for employees to discuss health risk behavior and re-activated the **Employee Assistance Program and school site wellness options** to support staff manage financial troubles, family issues, behavioral health, counseling resource and obtain flu shots and mammograms.

2005-2006

- AZBAIT implemented an **Employee Wellness Incentive Score Card program** designed to increase employee health and safety.
 - Program encourages employees to work in a buddy system to accumulate points for being physically active during the week, weekend and holiday season.
 - 2 Campaigns (3 week and 9 week) were offered for staff to accumulate points to win incentives.

2006-2008

- School Health Coordinator developed a district level health team, which held monthly meetings attended by district level administration, and began attending District Food Advisory Committee to advocate for healthy school meals.
- School health coordinator presented student insurance rates and Youth Risk Behavior data (YRBS) to the school board and initiated a discussion regarding the implementation of a school-based health clinic.

Professional Development among Community Health Workers and Healthcare Providers

Core Performance Measurement: I-6.1

DOMAIN

Provider

HEALTH FOCUS

Asthma, Diabetes, Obesity

OBJECTIVES

Asthma: Increase capacity of providers/*promotoras* to screen, diagnose, treat, and refer patients with asthma according to NIH Asthma Guidelines.

Diabetes: Increase capacity of providers/*promotoras* to screen, diagnose, treat and refer patients with diabetes.

Obesity: Build capacity of providers/*promotoras* to screen, diagnose, treat and refer overweight/obese patients.

METHODOLOGY

Evaluation is descriptive and includes tracking participation among providers and community health workers' professional development and training opportunities.

MEASURES/DATA SOURCES

1. Events
2. Participation
3. Certifications

PARTNER

**Mariposa Community Health Center
South East Arizona Area Health Education Center**

Since 2004, Santa Cruz County Steps lead agency has dedicated resources to provide professional development opportunities to community health workers, medical and social service providers. Trainings and certifications in prevention and disease control techniques build on the capacity of the local area workforce to provide better information and services to community members. Participants reflect the multicultural and multilingual workforce serving the Arizona-Sonora border.

These opportunities equipped skilled professionals with gold standard public health technologies, increased cultural competencies in service delivery and health promotion strategies. Events take place locally, at the state capital and across the Nation.

Santa Cruz County health professionals have participated as attendees in the following trainings, workshops and conferences:

Providers

- Community Health Workers/*Promotoras*
- Behavioral Health Counselor
- Dentist and Dental Assistants
- EMT/Medics
- Family Nurse Practitioners
- General Medical Practitioners
- Nutritionists/Educators
- Nurses (School and Clinic)
- Physicians Assistants
- Pharmacists

Interdisciplinary Support Staff

- Curriculum Development Specialists
- Health Educators
- Hospital Director
- Teen Health Facilitators
- Women Infant and Children Case Managers

Professional Development among Community Health Workers and Healthcare Providers

Mariposa Community Health Center– *Platicamos Salud* (Let's Talk Health)
South East Arizona Area Health Education Center

Professional Development Participation

- During 2004-2008, 109 capacity building opportunities were offered; events include conferences, evidenced-based trainings and certificate bearing coursework.
- 621 interdisciplinary health and social service providers, including community health workers attended these events.
- 47% of participants received a technical training.
- 12 health professionals initiated and or completed a certificate-bearing education program.

Steps Sponsored Professional Development Opportunities For Health Professionals						
	2004	2005	2006	2007	2008	Total
Total Opportunities	2	22	38	29	18	109
Total Participants	12	206	176	179	59	621
Training Participants	—	117(56%)	133(75%)	159 (88%)	43(72%)	293 (47%)
Certification Participant	—	4	6	2	0	12 (1%)

Total opportunities are characterized by a training, conference or a credit bearing training or educational program.

Types of Trainings and Certificate Programs

Asthma

- Tobacco Basic Skills Training
- Intervening with Teen Tobacco Users

Diabetes Prevention & Management

- Diabetes Prevention Certificate Course
- Promoting Better Health Outcomes for your Patients with Diabetes
- Endocrine Emergencies
- Oral Health and Diabetes Teleconference
- *Promotora* Diabetes Education & Social Support Intervention Training
- Breastfeeding and Gestational Diabetes Conference

Nutrition and Physical Activity

- Behavioral Obesity Treatment
- Motivational Interviewing and Bright Futures Methods
- Active Living Everyday and Healthy Eating Everyday Curriculum Certification
- Body Works Curriculum Training

Community Health Worker Development

- Community Health Workers National Conference
- Annual Arizona Community Health Worker Association

School Health Coordinators Committee (SHCC)

DOMAIN

Policy / Environment

HEALTH FOCUS

Asthma, Diabetes, Obesity

OBJECTIVES

Asthma: Develop and implement policies that will help reduce environmental asthma triggers (pesticides, smoke, allergens) and improve air quality.

Diabetes: Develop and implement policies that support self-management behaviors across multiple domains.

Obesity: Develop and implement policies that will increase opportunities for improved nutrition and physical activity.

METHODOLOGY

Membership and collaboration are assessed using attendance lists, a member survey, and a collaboration survey which are administered once a year. Policy priorities are assessed through the member survey. Programs and activities implemented through the SHCC to achieve policy goals are documented in meeting minutes, and an end of year discussion. Policy change is documented through meeting minutes, reports, and end of year discussion.

MEASURE/DATA SOURCES

1. Participation
2. Collaboration survey
3. Member survey
4. Meeting minutes
5. End of year discussion activity

PARTNERS

**MCHC *Platicamos Salud* (Let'sTalk Health)
Various Community Agencies**

The School Health Coordinators Committee (SHCC) is a collaborative of school and community based stakeholders designed to improve school and employee wellness through interventions and policy activities aimed at multiple levels within the school setting. The SHCC is focused on creating interventions and policy change that directly impact the prevention of chronic disease in the school population.

Integral to the functionality of this school wellness coalition was the partnership between Steps lead agency and champion nurses from the major school districts in the county. School nurses or School Health Coordinators (SHCs) were critical liaisons to all Steps school based efforts. The SHCC targeted School Health Index, District Wellness Policies, Health Risk Appraisals for school staff, employee wellness programming, family based childhood obesity programming and grant writing for a school-community *Walkability* initiative.

As agents of change, the SHCs and collaborating Steps partners represent school interests on local policy coalitions, school boards, with Superintendents and other elected officials, like the Arizona School Board Association Insurance Trust and the Arizona Departments of Education and Health.

The SHCC has strengthened school-community partnerships and has been successful in coordinating several interventions and policy activities in schools. The SHCC has engaged school staff and district leadership in targeting employee wellness at the individual and environmental levels with an aim to increase the transference of healthy behaviors and policies to the health of the entire student body.

School Health Coordinators Committee Policy Priorities

- Provide capacity building opportunities to classified and non classified staff to address nutrition and physical activity.
- Provide nutrition education and physical activity opportunities to students.
- Provide opportunities to enable change in the school environment that positively impact student health.

School Health Coordinators Committee (SHCC)

Nogales Unified School District, Santa Cruz Valley Unified School District,
Mariposa Community Health Center-*Platicamos Salud*, County Superintendent of Schools

Membership and Collaboration 2004-2008

The School Health Coordinators Committee began in 2005 and was sustained for 4 years through the Steps initiative. During Steps, the SHCC generally met between 10-12 times a year, and averaged annual participation of 5-10 attendees per meeting. A 2006 survey of 7 members indicated that 100% of the members were female and 28% are Hispanic/Latino. Participating organizations serve all ages of the community and primarily work with lower and middle income individuals and families.

Past and Current Members

- Mariposa Community Health Center (MCHC) -*Platicamos Salud* Health Promotion Division
- School Health Coordinator, Nogales Unified School District (retired District Nurse of 30 years)
- School Nurse, Santa Cruz Valley Unified School District
- *Salud Por Vida*-School/Community Physical Activity, Santa Cruz County Superintendent of Schools
- Santa Cruz County Cooperative Extension, University of Arizona
- United Way
- Juvenile Detention Education Program
- Cochise College
- Gear Up
- Hippy Program
- AHCCCS of Southern Arizona
- UA College of Public Health
- Southeastern Arizona Health Education Center (SEAHEC)
- School Nurse, Patagonia Unified School District
- Tobacco Prevention Program (MCHC)
- St Elizabeth's of Hungary Clinic
- Local Incentive Program (LIA)/Nutrition Education for Food Stamp Recipients
- *Proyecto Accion*-Community Mobilization Initiative (MCHC)

School Health Coordinators Committee (SHCC)

Nogales Unified School District, Santa Cruz Valley Unified School District,
Mariposa Community Health Center-*Platicamos Salud*, County Superintendent of Schools

Member and Collaboration Survey

The Wilder Inventory*

The Wilder Inventory consists of 40 questions that are designed to measure factors that have been identified through research as related to collaboration. The factors are grouped into six categories that seek to explain the success of a collaborative group. These are:

- | | |
|-------------------------------|------------------|
| 1) Environment | 4) Communication |
| 2) Membership Characteristics | 5) Purpose |
| 3) Process and Structure | 6) Resources |

Scoring is based on average group response on a 5 point scale. Scores of 4.0 or higher show a strength and probably don't need attention. Scores 3.0- 3.9 are borderline and should be discussed by the group to see if they deserve attention, and scores of 2.9 or lower reveal a concern and should be addressed.

SHCC members also answer **a member questionnaire** which captures demographics and open ended responses about the collaboration or policy priorities.

SHCC collaboration was measured in September 2006 (Year 3) of the Steps Initiative. A total of seven consistent SHCC members responded to the questionnaire and scored themselves 3.6 - 4.0 on a scale of 5.0 in environment, membership characteristics and process and structure. According to its members, the greatest strengths of the group included mutual respect for the group's partners, the benefit gained by their own organization from their involvement in this collaboration and the mutual understanding of the desire and commitment of collaboration members for projects to succeed. Although the questionnaire was repeated in 2007, it was implemented during a time of transition for the SHCC and results are not reported due to small sample size.

FACTORS THAT MAKE STEPS-SHCC COLLABORATION WORK	2006 Steps-Yr3 (n=7)
Scale: 1- 5 (weakness-strength)	Mean (SD)
Environment (6 questions)	3.6(.62)
Membership Characteristics (6 questions)	4.0(.32)
Process & Structure (13 questions)	3.9(.47)
*Wilder Collaboration Factors Inventory, Amherst Wilder Foundation, 2001	

School Health Coordinators Committee (SHCC)

Nogales Unified School District, Santa Cruz Valley Unified School District,
Mariposa Community Health Center-*Platicamos Salud*, County Superintendent of Schools

Policy Priorities and Activities: 2005-2008

Goal 1: Raise awareness about Coordinated School Health

Activities:

1. Raise group awareness about the eight components of coordinated school health which include: family community involvement, health education, physical education, health services, nutritional services, psychological & social services, health school environment.

Goal 2: Raise awareness and promote aspects of Local Wellness Policies

Activities:

Physical activity and Nutrition

1. Provide workshops/tools for teachers on how to increase physical activity in the classroom.
2. Provide workshops/tools for parents to increase physical activity at home.
3. Continue to support/promote schools/communities interested in walkable communities.
4. Support/promote schools interested in Safe Routes to School.
5. Provide workshops/tools for teachers and parents about alternatives foods for parties, fundraisers, vending, cafeteria, lunches

Goal 3: Develop and encourage parent advocacy through a family centered advocacy forum

Activities:

1. Provide skill building workshops to parents on how to advocate for community/school environmental change.
2. Identify curriculum for parent advocacy workshops.
3. Identify champion parents in partner and school programs interested in advocacy training.

How has your participation in this collaboration impacted your organization?

“Enabled district to look at students and staff health, has opened a lot of doors”

“Group is serious it’s an action group; commands respect and others will listen”

“Supports my role as a school nurse; gave me a way to promote health, bring health education to the classroom- to do what I feel I’m supposed to do”

“The doctors appreciated the fact that we were doing an informational presentation for them, and if we keep doing this, it will help build a relationship with providers and hearing their side of the story, to better coordinate the promotion and care sectors”

Source: Member Survey, September 2006

School Health Coordinators Committee (SHCC)

Nogales Unified School District, Santa Cruz Valley Unified School District,
Mariposa Community Health Center-*Platicamos Salud*, County Superintendent of Schools

Policy Progress

Goal I: Raise awareness about Coordinated School Health

- SHCC members reproduced and shared “A Safety Net “ DVD describing the McComb county school district experience in developing a coordinated school health approach to wellness. In one district , DVDs were distributed to district level wellness committee members, CSH concepts were also presented to both the school board and to a superintendent of schools meeting with district principals.
- SHCC met with the southern Arizona AHCCCS (Medicare) community outreach agents to learn about how Medicare reimbursement functions in schools and how schools can develop school-based clinics.
- The SHCC supported one school health coordinator’s presentation of YRBS statistics, rates of uninsured among children and how a CSH approach could support prevention education and increase access to care to the school board. Discussions related to renegotiating a school based clinic with the local community health center were initiated.

“What helped you in your accomplishments ?”

“The Congressional law regarding USDA assisted schools helped make people listen (about Wellness Policy)”

“This committee!”

“Partnerships overall”

“Cooperation of district administration; if superintendent says something is important, the rest will comply”

“Attending conferences and trainings, like Arizona Public Health Association, , Active Living Everyday/Health Eating Every Day Curriculum , School Wellness at UMC, TUSD, school nurse meetings

(Source: *Group Discussion of Policy Accomplishments—September 2006*)

School Health Coordinators Committee (SHCC)

Nogales Unified School District, Santa Cruz Valley Unified School District,
Mariposa Community Health Center-*Platicamos Salud*, County Superintendent of Schools

Policy Progress

Goal 2: Raise awareness and promote aspects of Local Wellness Policies

District Wellness Policies

- School Health Coordinators ensured that one person from each school was represented on the Local Wellness Policy Committee and that each school had a Safety and Health Committee and that monthly meetings were held.
- In another District, the school Site Council is the Local Wellness Policy Committee.
- School health coordinators guided the development of Local Wellness Policies.
- In one District, the School Health Coordinator met monthly with the Local Wellness Policy Committee to modify wellness policy originally adopted by school board. In another District, School Health Coordinator met with the lead lawyer responsible for crafting the original school wellness policy to discuss and negotiate the policies.
- Wellness Policies have opened the way for more physical activity for students and staff.
- School Health Coordinators continue education on new soda laws.
- Recess Before Lunch has been implemented in 100% of elementary schools in one District.

Walkable Communities Workshop and Safe Routes to School

- Partners implemented a county-wide Walkability Workshop. Local, state and university participants were trained in walkability assessments and a neighborhood audit process in both rural and urban settings to set priorities for improvement in their respective communities. The workshop was facilitated by Mark Fenton, a renowned expert in the walking field and host of the PBS television series "America's Walking".
- A total of 50 community members, including elected officials from 4 communities participated in the Walkable Communities Workshop.
- Two of the participating communities formed a local coalition to begin planning for a countywide effort.
- A local school district in collaboration with a school board member made the school board officials aware of the issues and the need to initiate a greenways plan for the school-community through a series of community presentations and one on one educational opportunities.
- Leaders from the Arizona Department of Transportation Safe Routes to School (SRTS) Program inspired one school health coordinator to submit two SRTS grant applications and one was funded. Partners will coordinate an interdisciplinary work group to create a SRTS plan and organize parent- teacher teams in the implementation of a Walking School Bus at least twice a year.

(Source: Group Discussion of Policy Accomplishments—September 2006)

School Health Coordinators Committee (SHCC)

Nogales Unified School District, Santa Cruz Valley Unified School District,
Mariposa Community Health Center-*Placticamos Salud*, County Superintendent of Schools

Policy Progress

Goal 3: Develop and encourage parent advocacy through a family centered advocacy forum.

The SHCC expanded its partnership to include 11 local health and social service agencies in the planning and organization of a **Santa Cruz County Family Health Advocacy Forum** to:

1. Develop a collaborative of Santa Cruz County health and social service agencies and University partners to increase leadership and advocacy skills among all agencies and the families served.
 2. Inform parents and teens of the health status of their community through the most recently available Youth Behavioral Risk Survey and the Behavioral Risk Factor Survey data.
- Program organizers selected components of the University of Arizona, Cooperative Extension Arizona Community Training Curriculum (ACT) and developed a bilingual workshop for parents and teens.
 - A parent-versus-teen Jeopardy game was developed to present the Santa Cruz County YRBS and BRFSS data. This game engaged parents and teens in learning about the differences and similarities in youth and adult health behaviors, like tobacco use, physical activity and nutrition.
 - Some families had reported prior experience in advocating for change with school boards and/or school administration. After the forum, parents and teens reported increased knowledge and confidence in their ability to advocate or make changes in their home and family (70%), school (73%), neighborhood (81%) and county or state (85%).
 - The collaborating partners of the forum continue to focus on advocacy issues including access to health coverage for children and families, and school-based health centers.

Coordinating Partners for Family Advocacy Forum

Mariposa Community Health Center-*Placticamos Salud*
Nogales Unified School District
Santa Cruz County Unified School District
Santa Cruz County Office of the Superintendent
Salud Por Vida Program
Juvenile Detention Education Program
Gaining Early Awareness and Readiness for Undergraduate Program (GEAR UP)
Home Instruction for Parents of Preschool Youngster (Hippy Program)
Arizona Health Care Cost Containment System of Southern Arizona (AHCCCS)
Cochise College
University of Arizona, Cooperative Extension of Santa Cruz County
University of Arizona, Zuckerman College of Public Health

Older Adult Working Group (OAWG)

DOMAIN

Policy/Environment

HEALTH FOCUS

Asthma, Diabetes, Obesity

OBJECTIVES

Asthma: Develop and implement policies that will help reduce environmental asthma triggers (pesticides, smoke, allergens) and improve air quality.

Diabetes: Develop and implement policies that support self-management behaviors across multiple domains.

Obesity: Develop and implement policies that will increase opportunities for improved nutrition and physical activity.

METHODOLOGY

Evaluation was conducted for program years 2005-2006. Increased membership and collaboration are assessed using attendance lists, a member survey, and a collaboration survey which are administered once a year. Policy priorities are assessed through the member survey, and action plan. Programs and activities implemented through the OAWG to achieve policy goals are documented in meeting minutes, and an end of year discussion. Policy change is documented through meeting minutes, reports, and end of year discussion.

MEASURES/DATA SOURCES

1. Participation
2. Collaboration survey
3. Member survey
4. Meeting minutes
5. Action plan
6. End of year discussion activity

PARTNERS

**Various local older adult health social service providers
Mariposa Community Health Center-*Platicamos Salud***

Recognition of the extent to which individual health-related behavior is shaped by social and cultural norms and by the physical environment of a community has brought increasing attention to systems and environmental factors that contribute to health related behaviors. The Older Adult Working Group is a community-based coalition focused on creating policy change that directly impacts the health and welfare of senior citizens of Santa Cruz County. The OAWG may include representatives from government, non government, health and human services, business, faith-based organizations, and concerned citizens. Core membership consists of local community members, however as the meetings are open forums, they are attended by guests throughout the region.

Monthly meetings provide a common space for related agencies and community members to network and advocate for senior citizens. Agencies and senior citizens learn from each other about upcoming events, issues and policies effecting seniors. Members are empowered to better coordinate activities, engage in cross program referrals of senior clients and their families. Informational presentations and trainings are also organized by Steps lead agency to build capacity among OAWG members.

Future Policy Priorities:

- Senior Transportation
- Mental, Physical and Nutritional Health of Seniors
- Housing and Home Care
- Older Adult Connectivity: Training, Employment and the Living Wage for seniors

Older Adult Working Group (OAWG)

Various local older adult health social service providers and
Mariposa Community Health Center– *Platicamos Salud* (Let's Talk Health)

Membership and Collaboration: 2005-2006

- 19 organizations have been involved in the Older Adult Work Group and 27 individual members

Partners and Participation Older Adult Working Group

	2006
Number of Organizations / Divisions	19
Number of Individual Local Members	27
Number of New Organizations	NA

Past and Current Organizations/Divisions

Health Centers and Hospitals

- Mariposa Community Health Center
 - *Platicamos Salud* Health Promotion Division
 - Community Nutrition Program
 - Tobacco Program
- Carondelet Holy Cross Hospital

Senior Social and Advocacy Services

State/County

- Southeastern Arizona Government Organization (SEAGO) Area Agency on Aging
- AARP Arizona
- Adult Protective Services
- Benefits Check Up Arizona, Office of the Governor
- Southeastern Arizona Community Action Program (SEACAP)
- Pima Health Systems Services
- ALTCS insurance
- United Way of Santa Cruz County

Local

- Senior Citizens of Patagonia
- Tubac Seniors
- 50+ Fitness for Life
- Hope Development Property Manager
- Santa Cruz County Public
- United Way of Santa Cruz County
- Santa Cruz County

Which other organizations do you think should be involved?

Medical Community

Holy Cross Hospital

Transportation and Housing

Adult care homes
Housing Authority
Assisted Living Facilities
Housing Providers
Rehabilitation Providers
Nogales Housing Authority
SCCOA Site Managers
Casitas de Santa Cruz County
Apartment Managers with Older Residents

Senior Support/Resources

WISE@50+ Program
Senior Citizen Representative (Patagonia, Rio Rico and Nogales)
Senior Center Directors
Santa Cruz Council on Aging

Community

United Way
Food Bank Directors
Community Supplemental Food
Border Reliance
Civic Groups (Lyons, KIWANIS)

Source: Member Survey, September 2006

Older Adult Working Group (OAWG)

Various local older adult health social service providers and
Mariposa Community Health Center– *Platicamos Salud* (Let's Talk Health)

Member and Collaboration Surveys

- Baseline for the OAWG was taken in September 2006, in Year 3 of the Steps Initiative
- Members scored themselves from 3.8 - 4.0 in all categories found below and scored themselves highest in “Resources” and “Communication”

FACTORS THAT MAKE STEPS-SHCC COLLABORATION WORK*	2006 Steps-Yr3 (n=14)
Scale: 1- 5 (weakness-strength)	Mean (SD)
Environment (6 questions)	3.9(.52)
Membership Characteristics (6 questions)	3.8 (.38)
Process & Structure (13 questions)	3.9 (.63)
Communication (5 questions) (N=8)	4 (.65)
Purpose (7 questions) (N=8)	3.9(.66)
Resources (3 questions) (N=8)	5 (.78)

*Wilder Collaboration Factors Inventory, Amherst Wilder Foundation, 2001

According to its members, the OAWG **greatest strengths include:**

Environment

- High level of respect for members of the collaborative
- Agreement that the time is right for this collaborative

Process

- Flexibility in decision making and openness to discussing options.

Communication

- Leaders of the collaborative group communicate well with members

Purpose

- Not any one organization can accomplish what this collaboration intends to accomplish.
- No one agency in the community is trying to do what this collaborative intends to do.

Resources

- The people working within this collaboration have good skills working with other organization and people

Older Adult Working Group (OAWG)

Various local older adult health social service providers and
Mariposa Community Health Center– *Platicamos Salud* (Let's Talk Health)

Overall Older Adult Work Group Success: 2005—2006

Capacity building among OAWG members and senior care givers– OAWG invite expert guests to discuss issues affecting seniors including representatives from the Center for Medicare and Medicaid, Silver Sneakers Program, Borderland Food Bank, Southeastern Arizona Government Organization, local oncologists and health care providers. A major speaker for this group was the Nogales City Engineer who presented the vision for the future of public transportation, sidewalks and recreation areas for the City.

Senior Nutrition Program –has been extended to include several senior centers in the county.

Senior Physical Activity Opportunities- The 50+ Physical Activity is taught in all senior sites in Santa Cruz County. Information and cross referrals among OAWG members have dramatically increased senior participation in community physical activity programs.

Networking and information exchange for mutual benefit- Through the attendance and presentations by a variety of community agencies, OAWG members have received much needed information to take back to their clients and agencies.

Senior Transportation Issues -OAWG members advocate for a more comprehensive senior transportation program to expand the transportation of seniors to and from strategic locations throughout the city, including the Senior Center, the Food Bank, the Community Health Center, local Hospital, Senior housing unit and shopping areas.

- Source, *End of Year Group Discussion, September 2006*

“What helped you succeed?”

“Networking within this group”

“Supervisors allow members to come to meetings during working hours”

“Southeastern Arizona Government Organization (SEAGO) Area Agency on Aging is a big help with the list serve “

“Trainings for care givers were able to be offered because of this groups relationships in community”

“SEAGO helped connect us with the Transportation Advisory Committee”

“What were the challenges?”

“Attendance at the meetings”

“Didn't come up with action plan and follow-up”

“Need to identify who needs to be at this table.”

“Establishing leadership and group facilitation, organizing it in a structured way, maybe a rotating chairperson and co-chairs”

- End of Year Group Discussion, September

Older Adult Working Group (OAWG)

Various local older adult health social service providers and
Mariposa Community Health Center– *Platicamos Salud* (Let's Talk Health)

Progress and Policy Change: 2005—2006

Transportation Advisory Committee- OAWG members attend and serve on the City's, Transportation Advisory Committee (TAC) . OAWG members advocate for senior transportation issues by providing senior perspectives regarding the City's use of 4 large vans and 2 small buses, and in determining public transportation routes most salient for senior needs.

- Source: *End of Year Group Discussion, September 2006*

Bringing Awareness to Local Decision Makers

Senior Transportation - *“The Transportation Advisory Committee (TAC) already knew seniors needed more than the city bus because they’ve received a lot of calls. The issue has been brought up by us before. There’s an existing program for seniors and we had shared that it wasn’t consistent or enough. We talked directly to the city engineer.”*

“What has been the impact on of your participation in this group on your organization?”

“We are more informative to our clients about physical activity and nutrition and other issues from the presentations with the oncologist and transportation”

“New collaborations with new agencies we didn’t work with before.”

“As case managers, when we hear there are new organizations coming to Nogales we invite them to come speak at this meeting so we help them out too”

“More opportunities for funding, like Healthy Aging Initiative from the CDC”

“Opened my eyes to things that are going on in the community and I can pass this on to my clients at the Tobacco Program”

“Senior issues have been brought to the attention of Mariposa Community Health Center, senior management now there is more attention to senior issues just because this group exists”

“As a result of her participation in this group, the certified fitness instructor was invited speak at the governor’s conference on aging in May . “

- End of Year Group Discussion, September 2006

Nogales Special Action Group

DISEASE

Asthma, Diabetes, Obesity

DOMAIN

Policy/Environment

OBJECTIVES

Diabetes: Develop and implement policies that support self-management behaviors across multiple domains.

Obesity: Develop and implement policies that will increase opportunities for improved nutrition and physical activity.

METHODOLOGY

Evaluation was conducted for program years 2004-2006. Increased membership and collaboration are assessed using attendance lists, a member survey, and a collaboration survey which are administered once a year. Policy priorities are assessed through the member survey, meeting minutes, an action plan, and reports. Programs and activities implemented through the SAG to achieve policy goals are documented in meeting minutes and reports. Policy change is documented through meeting minutes, reports, and an annual critical reflection activity during a SAG meeting which also addresses accomplishments and barriers.

MEASURES/DATA SOURCES

1. Participation
2. Collaboration survey
3. Member survey
4. Meeting minutes
5. Action plan
6. End of year discussion activity

PARTNERS

**Various SAG Members
Mariposa Community Health Center**

SAGs were first developed in 1999 in Santa Cruz and Yuma Counties to address diabetes prevention and control through the Border Health Strategic Initiative. The SAGs moved through several stages of development, beginning with basic education about the risk factors for diabetes. The second stage focused on the distinctions between programs and policies. For many SAG members, planning and implementing policy change was a new experience. The third stage involved an inventory and review of relevant conditions and policies that currently existed in the community. On the basis of the inventory, each SAG identified and prioritized policies and developed action plans. Policy-related achievements of the SAGs to date include raising awareness about chronic disease and behavioral risk factors, involvement in city planning processes to increase open spaces, and increased resources to the communities to build infrastructure for recreational activities.

The Special Action Group is a community-based coalition focused on creating policy change that directly impacts the prevention and control of diabetes, asthma and/or obesity. The SAG may include representatives from government, health and human services, schools, media, business, faith-based organizations, law enforcement, and concerned citizens. Core membership consists of local community members, however as the meetings are open forums, they are attended by guests throughout the region.

In 205, the Nogales SAG of Santa Cruz County faced a transitional phase of structural reorganization and prioritization of policy objectives. Year 2 was a year of critical reflection of the historical accomplishments of this policy group and how and why this collaboration can refocus it's efforts to tackle the dynamics of the state of local area political environment.

In 2006, the group decided to disband, many members of the SAG have joined another local coalition of hospitals, parks and recreation and school nurses to support a proposition to increase the sales tax by 1/4 percent and allocate funds to health and wellness expenditures. The measure to increase the sales taxes passed and the new coalition, with many members of the Nogales Special Action Group remain vigilant to ensure the allocation of funds.

SAG Mission Statement: *Based on community need and existing infrastructure, the SAG will collaborate to change community policies and norms regarding diabetes asthma and obesity.*

Nogales Special Action Group (SAG)

Mariposa Community Health Center– *Platicamos Salud* (Let's Talk Health) and
Leopold Consulting Inc.

Membership and Collaboration

In 2006, the Nogales SAG disbanded as many members reorganized themselves into a larger, long term political campaign to ensure a recent sales tax increase is appropriated towards health and wellness efforts as outlined by this new coalition.

Partners and Participation Steps Nogales SAG		
	2004	2005
Number of Organizations / Divisions	8	9
Number of Individual Local Members	ND*	8
Number of New Organizations	ND*	0
Average Meeting Attendance	15	8

** No data collected*

SAG Members Reflect : Keys to Success

1. Structure for group to guide us; Point person to gather us and keep us informed about health topic, legislative health issues, local and state; ongoing learning; linkages for communication and for informing each other about items listed above.
2. Personal responsibility; clarity of leader VS facilitator; more citizen ownership; commitment for policy change; group identity for messaging and voting; cohesiveness and linkages.
3. Existing City and County general plans reviewed and used to hold people accountable; better understanding on how we work with these plans (regulations for zoning, siting, etc.) regarding new development.
4. Information about the issues; connections for information flow through email or through meetings

Nogales Special Action Group (SAG)

Mariposa Community Health Center– *Platicamos Salud* (Let's Talk Health) and
Leopold Consulting Inc.

Policy Priorities: 2006

5 Subcommittees were organized around the following policy priorities:

- Increase SAG membership and its diversity so that there are committed, passionate, informed people from across the County
- Increase awareness of risks, cost, options for prevention of diabetes with community at all levels in Santa Cruz County
- Increase physical activity for all school age children in Santa Cruz County
- Increase the nutritional value of all food and drink sold and served in Santa Cruz County
- Improve community infrastructure supportive of physical activity within Santa Cruz County

Cues to Success

According to members cues for successful policy work include: having a structure to take action; knowing who you are talking to, how they vote and who they are talking to; Raising public awareness of issues through education

–SAG Retreat, Leopold Consulting

Sub-Committee Goals

SAG Development

1. Increase SAG membership by 10 members.
2. Increase membership of Key Players , ie City of Nogales and Patagonia, Santa Cruz County, etc.
3. Involve other working groups. (Special interest-older adult workshop) with vested community interests.

Community Awareness

1. Assessment of existing diabetes programs and materials to be conducted.
2. Community data on existing diabetes population broken out by age group.
3. Identify risks, costs and options for prevention.

School Health

1. Change recess to before lunch.
2. Pilot CATCH Program (2005/06).
3. Implement CATCH Program County-wide school.
4. Improve / remove vending machines.
5. Educate parents about nutritional snacks.
6. Remove foods of minimal nutritional value as fund raising tool.

Community Infrastructure

1. Establish a SAG membership consisting of committed, well-informed individuals who work towards the development of bike/walking trails in Santa Cruz County by end of 2005.
2. Improve walkability.
3. Improve community infrastructure supportive of physical activity by 30%
4. Hold developers accountable for incorporating space in their plans for paths/trails/parks.

Nogales Special Action Group (SAG)

Mariposa Community Health Center– *Platicamos Salud* (Let's Talk Health) and
Leopold Consulting Inc.

Action Steps

SAG Development

1. Increase membership of key players (representatives of the City government)
2. Involve other local policy working groups with vested community interests

Raise Community Awareness about Diabetes

1. Assess existing diabetes programs and materials.
2. Obtain local age-specific diabetes data.
3. Identify risks, costs and options for prevention of diabetes.

Improve School Health

1. Improve / remove vending machines in schools.
2. Educate parents about nutritional snacks.
3. Remove foods of minimal nutritional value as fund raising tool.

Focus on Community Infrastructure

1. Increase SAG capacity related to planning and zoning's impact on physical activity infrastructure.
2. Identify current code related to new developments, open space, sidewalks, and other amenities.
3. Identify opportunities to participate in Nogales standard development code process, i.e. public meetings.
4. Identify opportunities to participate in process of development of Albert K Park and Damon Recreational Complex .

Strengths and Challenges

SAG Members describe their greatest strengths to include; Strong body of people and organization; Funding; Past experiences; Desire for Open communications; History of what has been done, what's worked; Strong base and shared Vision; Ability to refocus; Strong body of organizations.

Some of their challenges include: Fear of lack of funding; Not being known to policy makers; Inconsistent and limited attendance; Lack of leadership; Lack of representation from all parts of the region

—SAG Retreat, Guided Discussion, Leopold Consulting Inc.

Steps to a Healthier Yuma County

Executive Summary

The Steps to a Healthier Yuma County Initiative (2003-2008) built upon the success of diabetes prevention and control efforts of the Border Health Strategic Initiative (2000-2003). Key to the success and strength of the Steps Initiative in Yuma County were the interagency partnerships that were sustained over the course of the funding period. The University of Arizona Yuma County Cooperative Extension served as the lead agency working in collaboration with partner agencies. Contractual partners in Yuma County included Campesinos Sin Fronteras (CSF), the Regional Center of Border Health, Inc. (RCBH), and the Yuma County Public Health Services District (YCPHSD). All partners actively participated in quarterly partner meetings and community health events. Steps expanded its network of partners through three local health coalitions which continue to work together after the Steps Initiative ended.

“The Status of Health in Yuma County: Partnering for a Healthier Community”

As part of the Steps Initiative, county-level data was collected through the Behavioral Risk Factor Survey and the Youth Risk Behavior Survey. Because this was the first time that such extensive data was available at a county level, Steps partners coordinated and conducted a forum to share the data, and the efforts of the Steps program with the community and health professionals. The objectives of the forum were 1) To reveal current health data specific to Yuma County, 2) Highlight the Steps program model and impact, 3) Learn ways to use the data to continue promoting healthy lifestyles in Yuma County, and 4) Discuss potential partnerships.

Steps partners coordinated save the date flyers, formal invitations with data ‘teasers’ and event reminders. Over 100 people registered for the conference and 82 attended the morning informational session; 71% of the attendees stayed after lunch to participate in group discussions.

Diverse Turnout at Steps Health Forum

In addition to professionals from the health services sector, participants from a diverse range of community agencies and organizations, including elected officials, attend the event:

Arizona Department of Education
Arizona Department of Environmental Quality
Arizona Health Care Cost Containment System
Chicanos Por la Causa
County Board of Supervisors
Head Start
Parks and Recreation

Schools
Somerton Library
State House of Representatives
Yuma Community Foundation
Yuma County Public Works
YMCA
YMCA Child Care

At the forum Steps partners presented a ‘live’ walk-through on-line on how to access health data for Yuma County, including where to find BRFSS and YRBS reports and data files. Handouts with websites, resources, and contact information were also distributed. Steps partners presented their programs and highlights of evaluation outcomes. The second half of the event was dedicated to group discussions on the information presented, how it can be used, and potential partnerships for the future. Coverage of the forum was aired on the 6:00 and 10:00 evening news, and appeared in English and Spanish language newspapers, as well as on-line news sources.

Yuma County

Executive Summary

The Steps Final Evaluation report covers the process and outcomes of 18 programs and efforts of Yuma County partners. Five of these programs were evaluated using pre/post questionnaires, all of which showing some statistically significant improvements. Programs were also evaluated through program documentation, participation, and testimonials from personnel and participants. Below is a summary of evaluation highlights in Yuma County, by domain or intervention level:

Patient / Family

Interventions in this domain primarily focused on asthma, including the **El Aire Es Vida** home visit program, a series of 4 visits by CSF *promotoras*. From 2004—2007 CSF completed home visits with 118 families. Evaluation results indicated a statistically significant improvement in adult self-efficacy, i.e. confidence in his/her ability to help their child control their asthma, or control their own asthma. There was also significant improvement in awareness of 8 potential asthma triggers. Participants also identified strategies to avoid, reduce or eliminate household and environmental triggers.

Through the efforts of the Yuma County Asthma Special Action Group, the first local asthma camp, **Camp Not-A-Choo** was launched in 2005 and continues annually. The camp represents the efforts of over 33 community volunteers and sponsors. Approximately 15-20 children attend the camp each year. Based on a sample of 25 parent pre/post questionnaires, there was a 50% increase in the number of parents reporting that their child's understanding of asthma was "good" or "excellent", and a 59% increase in the number of parents stating that their child uses a peak flow meter; both outcomes were statistically significant.

Community

Steps partners were dedicated to conducting **community outreach** through presentations and classes, and at community events. From 2004—2008 *promotoras* and health educators from CSF gave over 127 asthma presentations to over 2,728 participants. Audiences included agriculture companies and farm workers, school personnel and students, PTO meetings, church groups, and the Girls Scouts. They also presented to over 400 childcare providers. From 2005-2008, as part of the **Paso a Paso** program, *promotoras* at RCBH provided 66 cooking demonstration classes to 783 participants, and 131 health and nutrition sessions to over 1,000 participants. Finally, between 2006-2008, Steps partners documented over 132 **community events and health fairs**. These outreach events and activities are important to the Yuma community because they are culturally sensitive, materials and information are given in Spanish, and participants can receive health screenings and referrals to providers and community programs and services.

Over 400 people participated in the 3-month nutrition and walking club program **Pasos Adelante**, which is delivered by *promotoras* from RCBH. Evaluation results indicated a statistically significant increase in awareness of the benefits and recommended levels of physical activity and knowledge of recommended fruit and vegetable intake. Participants demonstrated a significant decrease in soda and sweetened beverage consumption, and a significant increase in fruit, vegetable, and salad consumption. There was also a significant decrease in the median fat content in milk

consumed by participants (i.e. a decrease from whole and 2% and an increase in 1% and skim milk). Participants also reported a significant increase in the use of canola and spray oils, and a significant decrease in use of corn oil and butter. There was a significant increase in the number of participants who stated they go out walking for exercise, and a significant increase in the average number of minutes that participants walked per week.

Schools and Child Care

The RCBH was the lead agency working with schools to implement the **School Health Index (SHI)**. In 2004 and 2005, 5 schools started the SHI and lost momentum. Through the Steps Initiative, awareness was raised of the Child Nutrition and WIC Reauthorization Act of 2004 which required Local Education Agencies (LEA) and Districts to have a Local Wellness Policy in place (Section 204 of Public Law 108-265), and a new interest in implementing the SHI was seen. The law required that the policy be in place no later than June 30, 2006. Subsequently in 2007, RCHB worked with 9 schools from 3 districts (5 elementary, 3 middle, and 1 high school) to complete the SHI. Results from the SHI indicated that most schools needed improvement in the areas of Health Promotion for Staff, and Family and Community Involvement. Activities implemented in partnership with the RCBH include an annual High School Nutrition Day, and annual district-wide health promotion fairs and screenings for staff. The SHI team from Gadsden Elementary School District #32 continues to meet as a school health council. Additionally, Steps Special Action Group members participated in the development of **Local Wellness Policies** for 3 school districts.

The **Nutrition and Physical Activity Self-Assessment for Child Care Centers (NAP SACC)** was successfully piloted in Yuma through the Steps Initiative. YCPHSD implemented the NAP SACC with 30 child care centers in 6 communities; these centers had 337 staff serving over 1,800 children. Based on a sample of 17 centers, there was an overall increase in the number of child care centers implementing 49 of the 56 (87.5%) best practices identified by the NAP SACC. There was a statistically significant improvement in the median number of nutrition and physical activity best practices in place at these centers. Through the Steps NAP SACC program awareness was raised about childhood obesity in the early childhood development community, building on the capacity and infrastructure in Yuma County to address nutrition and physical activity of young children. The NAP SACC facilitator also began Yuma's first Certified Child Care Health Consultant (CCHC). The program was also registered with the Statewide Child Care and Early Education Development System (S*CCEEDS) which meant that child care providers earned Continuing Education Units by participating in NAP SACC workshops.

The American Lung Association's **Open Airways for Schools** program was reintroduced through the efforts of the Yuma County Asthma Special Action Group. Steps volunteers delivered the program to 9 schools in 3 communities, serving 106 students with asthma. Analysis of 80 pre-post questionnaires completed by students indicated significant improvements in the areas of self-management, triggers in the home, what to do during an asthma episode, communicating with adults about asthma, and decision-making skills.

CSF worked with charter high schools that primarily serve students from the Hispanic farm worker community. Some students work on the farms, or have their own families, and the school tailors its program to their needs. The schools do not have health education or P.E. classes, and CSF negotiated with administrators to provide health education for academic credit. These classes included the **Healthy Lifestyles** program which was implemented 11

Yuma County

Executive Summary

times with 143 students, and the **Not On Tobacco** teen smoking cessation program by the American Lung Association, which was implemented 3 times with 42 students. Both programs were offered in Spanish.

Provider

As of 2008 the RCBH Walk-In Clinics were serving over 14,000 patients. Through the **Diabetes Quality of Care program**, providers identified 6 key indicators to improve the care given to people with diabetes. Through a chart review process the program demonstrated an increase in the number of foot and eye exam referrals and cholesterol tests for people with diabetes. The clinics now utilize a Continuity of Care Record (CCR), an electronic record system to track diagnosis, laboratory data, medications, patient history, allergies, patient demographics and insurance information. This system will sustain the Quality of Care program.

Policy

The Steps Initiative allowed the **South Yuma County Special Action Group (SAG)** to continue the work begun through the Border Health Strategic Initiative. The SAG focused on local level policy and environmental change to support the diabetes prevention and control efforts of the initiative. The goals of the South Yuma SAG during Steps were to empower parent groups to advocate for nutrition and physical activity in South Yuma schools, and increase physician and community awareness of health promotion services and programs.

Steps partners decided to form an **Asthma SAG** in 2004 in order to bring together appropriate partners and stakeholders. The group was responsible for getting the Open Airways for Schools (OAS) program back into Yuma schools by advocating to school administrators, nurses, and school boards. The Asthma SAG coordinated and sponsored 3 local OAS trainings for 45 participants. The group also initiated the annual Camp Not-A-Choo. To address sustainability in the final year of Steps, the Asthma SAG merged with the Yuma Tobacco Coalition to form the Yuma Tobacco and Asthma Coalition (YTAC). The YTAC continues to support schools and coordinate OAS services, as well as work with RCBH to implement the annual Camp Not-A-Choo. The group has a strong partnership with the Arizona Department of Air Quality and will initiate the Wind Advisory Flag Program in 2009 to raise awareness of air quality and its relation to respiratory health.

In 2005, Steps partners formed the **Central Yuma SAG**, which focused on worksite wellness, school wellness policies, and parks and open spaces. In 2006, Central SAG members were on wellness policy committees for Somerton School District, Gadsden Elementary School District, and Yuma Union High School District.

All three SAGs were coordinated under the leadership of the University of Arizona Yuma County Cooperative Extension. In the final year of Steps, leadership was transferred to the Yuma County Public Health Services District, which is dedicated to sustaining the SAGs and providing logistical support and coordination while each group pursues its goals and seeks out funding and partnership opportunities that support those goals.

Asthma Education In Homes

Core Performance Measures: I-6.1, Suppl. O-1, O-4.3, O-7.1, O-7.2

DOMAIN

Patient

HEALTH FOCUS

Asthma

OBJECTIVES

Reduce frequency and severity of asthmatic episodes through increased decision-making skills, self-management practices and appropriate use of asthma medication.

METHODOLOGY

Family demographics and participation were collected at the first home visit. Participation of each family member was tracked by promotoras. The primary participant, usually a parent of a child with asthma or an adult with asthma completed a pre-post questionnaire at the first and fourth visit with the assistance of a promotora or health specialist.

Hypothesis testing on categorical responses was conducted using the McNemar's test for proportions or the Wilcoxon sign-rank test as appropriate. Variables that were not normally distributed were treated as categorical. Continuous responses were tested with paired t-tests. The overall level of statistical significance was adjusted (Sidak corrected alpha = 0.0027) to account for multiple comparisons.

Promotoras also provided written testimonials about participants and the program.

MEASURES/DATA SOURCES

1. Participation
2. Demographics
3. Pre/Post questionnaire

PARTNER

Campeños Sin Fronteras (CSF)

During the first year of the Steps initiative, staff at CSF created and piloted a series of educational presentations designed for various settings. Materials were collected and translated to Spanish. The second year of Steps, staff adapted a 60-minute presentation to fit a home setting, and expanded this portion of their program to a sustained intervention for families with asthmatic children and/or adults with asthma. The program consists of 3 educational home visits which take place within 3-6 weeks. The program is concluded with a fourth visit for evaluation and follow-up.

The first home visit addresses characteristics of asthma, possible causes, and symptoms. Outdoor triggers and ways to avoid them are also discussed. During the second home visit, the first session is reviewed, and indoor triggers and ways to avoid them are discussed. During the third session families learn about self-management skills and discuss peak flow meters, medications, action plans, and education. They also discuss what to do in case of an emergency.

According to promotoras, many families have several children and/or adults who have asthma; and some that are not even aware or unsure if they have asthma. Families request home education because they relate to some of the symptoms they have read either from the brochures CSF developed or through the health fairs CSF organizes throughout the community.

Overall, many of the children with asthma did not participate in the program, and the mother received the information. As many of the children are of an age where they could benefit from learning self-management techniques, CSF is considering enhancing the program to include a respiratory therapist to teach more in-depth skills during one of the visits while the child is present.

Asthma and Allergies

Promotoras have found that the majority of families they serve are not aware of the relationship between allergies and asthma. Promotoras always encourage participants to learn what causes their asthma attacks, because an attack might be prevented if the allergen can be avoided.

Participation: 2004-2007

From 2004 through December 2007, 118 families participated in the El Aire Es Vida asthma home visit program, consisting of over 261 participants ranging from 1 to 84 years of age. In general, parents of children with asthma were the primary participant (34%) and other family members participated in the program. Often more than one person in the family had asthma. Occasionally adults with asthma were the primary participant (15%), i.e. there were no children in the family with asthma.

Of the 261 participants in the program, 60% had asthma: 65 (44%) adults and 84 (56%) youth. Youth of all ages had asthma, 60% of whom participated in one or more of the home visits.

Participation in Asthma Home Visit Program	
Total # Families	118
Total # Participants	261
Female / Male	70% / 30%
Age Range	1-84 yrs
Mean age adults	26 yrs
Mean age youth	6 yrs
Family Member	
Parent	34%
Adult primary participant	15%
Grandparent	6%
Spouse	3%

Family Members with Asthma	
Total	249 (60%)
Adults	65 (44%)
Youth	84 (56%)
Age of Youth	
0-4	24%
5-11	46%
12-17	30%

Participation of Persons with Asthma		
# of Home Visits	Adults (n=65)	Youth (n=84)
0	2%	40%
1-2	12%	32%
3-4	87%	28%

Of the youth with asthma, 40% experienced one or two asthma episodes in the past year; 40% of both adults and youth had 3 or more attacks. Approximately half of both adults and youth had to go to the emergency room due to asthma in the past year, with 14% of adults and 15% of youth going 3 or more times.

81% of both adults and youth with asthma see a doctor for their condition. About 3% of the adults and 10% of the youth have no insurance coverage at all. Most participants are covered by the state insurance programs (AHCCCS, KIDSicare, or Medicare).

Asthma Events in Past 12 Months		
	Adults (n=35)	Youth (n=46)
# of Asthma Attacks		
0	31%	19%
1-2	7%	40%
3-4	20%	28%
5+	20%	13%
# of Emergency Room Visits		
0	54%	48%
1-2	31%	37%
3-4	11%	13%
5+	3%	2%

Health Care	
Adults (n=38)	
Uninsured	3%
AHCCCS (Medicaid)	61%
Medicare	13%
Mexican	3%
Private/Employer	16%
Youth (n=51)	
Uninsured	10%
AHCCCS/KIDSicare (Medicaid)	79%
Private/other	10%
Sees Doctor for Asthma	
Adults (n=36)	81%
Youth (n=52)	81%

Outcomes: Pre Post Assessment

A pre-post assessment was completed by 81 adults, either a parent/guardian of a child with asthma, or an adult with asthma.

Self Efficacy

Participants reported a **statistically significant** (Wilcoxon signed ranked test, $p < 0.0001$) increase in their confidence in ability to:

- 1) help their child control his or her asthma (n=39)
- 2) control their own asthma (n=25)

Awareness of Asthma Triggers

Participants reported a **statistically significant** increase in knowledge of the most potential asthma triggers.

Awareness About Potential Asthma Triggers (N=81)					
Trigger	Pre	Post	Trigger	Pre	Post
Pollen	89	94*	Cigarette smoke	78	94
Mold	61	94*	Vigorous exercise	56	94*
Household dust	78	94	Some medications	44	78*
Colds / Flu	94	100*	Animal/pet fur	83	100*
Stress	56	78*	Auto fumes	61	94*
Exact McNemar test for significance ($p \leq 0.001$)					

Characteristics of Asthma

The pre-post assessment contained a set of true-false statements derived from an 'Asthma Myths' resource by the American Lung Association. There was no statistically significant change in correct responses at baseline and post.

Awareness About Characteristics of Asthma (N=81)		
	Pre	Post
Asthma is life threatening (true)	94%	100%
You can control asthma (true)	96%	100%
Coughing during or after exercise can be a symptom of asthma (true)	71%	89%
Only children get asthma (false)	61%	89%
People with asthma must limit their exercise (false)	61%	84%

Outcomes: Actions taken in the home

At the post assessment, the primary participant was asked about specific changes to avoid and eliminate triggers in the home that they were not doing before participating in the program. **Examples of changes included:**

- **Dust bookcases, wash or get rid of stuffed animals**
- **Use a mattress cover**
- **Use less and/or don't mix chemicals when cleaning**
- **Keep the pet away, or shower after playing with pet**
- **Try to not go out in the cold, or cover up with warm clothes**
- **Avoid stress**
- **Wash sheets regularly with hot water**
- **Pay more attention to the weather, and windy days**
- **Ventilate the bathroom and kitchen, reduce humidity**
- **Avoid dusting and cleaning when child with asthma is present**
- **Keep stuffed animals out of bed and/or bedroom**
- **Get rid of carpets / rugs**
- **Quit smoking / smoke less / smoke inside**
- **Avoid perfumes and scented candles**

Casinos and Second Hand Smoke

“At one of our tobacco presentations I saw a participant I knew from our CVD program. She told me that her daughter worked at the casino and now that she heard the information about tobacco she was going to give her daughter this information and handouts. Two weeks later I made the first asthma program home visit and this lady told me that she had spoken with her daughter about the dangers of second hand smoke. Her daughter quit her job that day and found another job at a department store in Yuma. I am sure that our programs can work when family members get involved to make changes.”

-Promotora at CSF

Promotora Testimonials

Because *promotoras* are in the homes of their clients, they lend social support to participants, usually women, who often confide in the *promotora* and share their problems and life stories. Many participants are suffering from more than one chronic illness including stress and depression. These women sometimes turn to the *promotora* as an outlet, expressing their difficulties with family members, complex life experiences, or complicated encounters with the health system. Below are just a few examples of the testimonials that the CSF *promotoras* shared over the course of the Steps initiative. They are a reminder that health interventions take place in a larger social and cultural context where community members face interrelated health and social challenges.

Co-Morbidities Among Community Members and Families

“This family was referred to our asthma program by a promotora from the Campeños Diabetes Management Program (CDMP). In this family the mother and the father have diabetes. The mother has had asthma and diabetes for many years, and she is now blind due to her diabetes. They have two children, a 14 year old girl and a 7 year old boy. The girl was diagnosed with asthma when she was a baby, and was recently diagnosed with hypoglycemia.”

-Promotora, CSF

“This family was referred by the Campeños Diabetes Management Program. The woman was 42 years old and has had diabetes for the last 17 years and asthma for the last 10 years. She told me she recently had an asthma attack. She went to her doctor and he sent her to the emergency room and from there she was sent back home, because everything was fine. The next day she went to see her doctor and she was given an inhaler but she never got any medication. After waiting a few days she finally went to Mexico to buy it. She is also worried that her 3 children might get diabetes because of heredity and they are overweight.”

-Promotora, CSF

“Since I was young I smoked 3-4 packs of cigarettes a day, but one day I got so sick I couldn’t breathe. My husband took me to the hospital and they did some exams. It turns out I had emphysema and the doctor told me that if I didn’t quit smoking I would only live another 6 months because my lungs would explode. My eyes almost popped out of my head. When I went home and was alone I was very sad because of what the doctor said. I started to cry, and I started to smoke. For many days I felt so bad and I thought I was going to die. I kneeled and I prayed for God to help me. My husband took me to the hospital again, and I stayed for 3 days. They did more exams and told me I had asthma too. Now I haven’t smoked for 12 years. I know I have emphysema and asthma but I take care not to be around people who smoke.”

-Participant of Asthma Education Program, relayed by CSF promotora

Stress and Family Relationships

“This lady told me that she suffers from depression because of the health problems that she has, and at times she doesn’t have the money for medications. Also, her husband nags her because of her illness and the money she spends on doctor’s visits, and medicine. He tells her that when he gets sick he would rather kill himself before he put his kids through this.”

-Promotora, CSF

Asthma Camp:

Camp Not-A-Choo

Core Performance Measures: I.6.1, Suppl. O-1, O-7.2

DOMAIN

Patient

HEALTH FOCUS

Asthma

OBJECTIVE

Reduce frequency and severity of asthmatic episodes through increased decision-making skills, self-management practices and appropriate use of asthma medication.

METHODOLOGY

Methods for evaluation are descriptive, including community collaboration and efforts to implement the camp, and documentation of evidence based activities. A pre/post questionnaire is completed by one parent on screening night and again by phone or mail, 3 months after camp.

Hypothesis testing on categorical responses was conducted using the Exact McNemar's test for proportions or the Wilcoxon sign-rank test as appropriate. Variables that were not normally distributed were treated as categorical. Continuous responses were tested with paired t-tests. The overall level of statistical significance was adjusted (Sidak corrected alpha = 0.005) to account for multiple comparisons.

Feedback from parents is also collected.

MEASURES/DATA SOURCES

1. Volunteers and sponsors
2. Participation
3. Pre/post questionnaire

PARTNERS

UA Cooperative Extension Asthma Special Action Group (SAG)

The Consortium for Asthma Camps* reports a moderate to high level of evidence that children's asthma camps can increase a parent and child's knowledge of asthma, increase a child's locus of control, improve self-efficacy and attitude about their condition, and improve their metered dose inhaler and peak flow meter technique. The literature also indicates that asthma camps decrease a child's anxiety, symptoms, exacerbations, school absences, emergency department visits, and hospitalizations.

Through the Steps Initiative, the special efforts of the Yuma Asthma SAG coalition, and many community partners, the first asthma camp in Yuma, Camp Not-A-Choo, was launched in 2005, and has been offered 4 times since the beginning of the Steps program. The Asthma SAG prioritized this event in response to suggestions by SAG members from the Yuma Regional Medical Center, who had difficulties sending children to the one-week asthma camp held annually in Prescott, AZ, because of cost and the fact that parents are not comfortable sending their children for a week. The overnight weekend camp for 8 to 11 year olds is held outdoors where the kids sleep in tents and have camp fires. Educational activities include the use of the Open Airways for Schools curriculum as well as activities found on the Consortium for Asthma Camps website.

To date, partners have offered 4 annual camps. The Asthma SAG is committed to offering the camp after Steps ends. Local partner Regional Center for Border Health Inc., will act as lead agency.



**Asthma Camp
2005**

*For information about the Consortium visit: www.asthmacamps.org

Camp Not-A-Choo

Yuma Asthma Special Action Group (SAG)
Yuma County Cooperative Extension

Collaboration for Camp: 2005—2008

Members of the Asthma SAG made a great effort to find sponsors and volunteers to participate with Camp Not-A-Choo. In 2005, the Yuma Regional Medical Center (YRMC) made a significant contribution to the camp, and all together there were 9 sponsors and 35 volunteers. The Marine Corp donated and set up tents, the University of Arizona Cooperative Extension 4-H program provided an activity with therapy dogs, and Saddles of Joy provided horse riding opportunities. The camp was featured in 3 local newspapers, bringing awareness to local efforts to reduce the burden of asthma for children and promote the camp. By the second camp in 2006, there were 13 sponsors and 55 volunteers, including 3 private practice pediatricians, 3 YRMC respiratory therapists, 1 YRMC nurse, 8 Steps partners, and 6 nursing personnel from Yuma County Public Services District. The camp continues to receive support from the community, including local businesses each year. To date, Yuma County partners have offered 4 annual camps.



Children form teams and give themselves names like:

Lightening Lungs
Bronchial Bombers
Asthma Attackers
Pulmonary Pulverizers

Camp Not-A-Choo Collaboration 2005-2008

Camp Sponsors

Avon
Arizona Department of Environmental Quality
Arizona Department of Health Services
Campesinos Sin Fronteras
Child and Family Resources
Circle K
Food City
Regional Center for Border Health, Inc.
Shamrock
U of A Cooperative Extension
Yuma Community Foundation
Yuma County Health Department
Yuma Regional Medical Center
Yuma School District One

Volunteer Agencies

Arizona Department of Environment Quality
Arizona Western College (Massage Therapy students, Student Nursing Assoc., Latin dance team)
Campesinos Sin Fronteras
Care Flight Team
Chicanos Por La Causa
Child and Family Resources
Community Intervention Associates
Legends of the West
McMillin Professional Photography
Navy Medical Team
Pediatricians (Private Practices)
Regional Center for Border Health, Inc. / WAHEC
Saddles of Joy Horseback Riding
Somerton Police Department
U of A Cooperative Extension (Steps & 4-H Division)
Yuma County Public Health Services District (Nursing & Nutrition)
Yuma Marine Core Air Station
Yuma Regional Medical Center (Respiratory Division)
Yuma Union High School District

Camp Not-A-Choo

Yuma Asthma Special Action Group (SAG)
Yuma County Cooperative Extension

Camp Activities and Participation: 2005-2008

Children and parents attend an orientation and screening night, where they meet with providers to assess medication management needs. This allows the children to be on their medications for an appropriate amount of time, before being exposed to triggers at camp. Parents participate in dinner and education the first night of camp. Educational sessions are delivered from the Open Airways for Schools Curriculum. Activities are also derived from the Consortium for Asthma Camps.

AGENDA

Friday Evening

Check in and Counselor Time
Ice Breaker
Dinner
Education: Peak Flow Meters & Inhalers
Camp Fire and Legends of the West

Saturday Morning

Breakfast and Medication
Education and Activity Stations:
 Feelings About Asthma
 Horseback Riding
 Finding Triggers and Controlling Asthma
 4-H Therapy Dogs
 Recognizing and Managing Symptoms
 Arts and Crafts

Saturday Afternoon

Education and Activity Stations:
 Solving Problems with Medicines
 Make Your Own Mucus
 Keeping Your Battery Charged
 Relay / Obstacle Course
 Doing Well at School
 Arts and Crafts
Dinner and Ceremony with Parents



Physical Activity is Important at Camp



Healthy Snacks are Served

Camp Not-A-Choo

Yuma Asthma Special Action Group (SAG)
Yuma County Cooperative Extension



Camper with Quilt Donated by Project

“Thank you so much for selecting my daughter for camp. She had a blast and learned so much on how to control her asthma. Thank you again for the medication. [It] has helped plenty!”

“It was good for my child to go to the camp because she learned many things that she never knew like how to control her asthma when she has that problem, and more.”



Campers with Bo the Therapy Dog



Jump Rope with Local Police Officer Who Volunteered As A Counselor

“Thank you. My child enjoyed the camp and learned a lot. Now she knows more about asthma than her father who is also asthmatic.”

Camp Not-A-Choo

Yuma Asthma Special Action Group (SAG)
Yuma County Cooperative Extension



Massage Students from Arizona Western College gave massages to campers, volunteers, and counselors, under their professor's supervision.



Riding Horses Provided by Saddles of Joy

“Instead of posters and pictures, camper has opted to put up pages from his materials received at asthma camp!”

More Feedback from Parents at Follow Up

Mother said that camp was great experience for her son. The hands-on experience with other children who have asthma made him feel he is not the only one with asthma. He wants to participate next year.

Mother is very grateful for her child's participation at camp she said child enjoyed the camp and staff was very kind.

Mother said she is very happy with her son's experience at camp; he learned a lot and would like to participate again next year. Mother would like to volunteer next year.

Mother said she is very happy and thankful about the camp; her son now runs, rides his bike and swims without getting agitated. He knows how to control his asthma very well.

Camp Not-A-Choo

Yuma Asthma Special Action Group (SAG)
Yuma County Cooperative Extension

Pre/post Outcomes: 2005

In 2005, a pre-post camp evaluation was piloted with parents. Post assessments were mailed or conducted by phone approximately 3 weeks after camp. Of the 15 campers, 10 parents completed a pre and post assessment. Results indicated improved parent attitudes about being able to help their child, and decreased sense of helplessness. All the parents stated they saw an increase in their child's knowledge of asthma, that their child learned asthma skills, their child felt differently about asthma, and he or she talked positively about asthma camp. The evaluation instrument was revised in 2006 to better capture the camp's impact from the perspective of the parent.

Pre/post Outcomes: 2006, 2007 & 2008

At these three annual camps 41 campers attended. At screening and orientation night 39 parents completed the pre-camp assessment, and 27 completed the post-camp assessment either by mail or telephone. Matched responses varied from 15 to 25 pairs.

- There was a 50% increase in the number of parents (from 7 to 15) reporting that their child's understanding of asthma was "good" or "excellent" which was statistically significant ($p=0.002$).
- There was a 59% increase in the number of parents (from 6 to 16) stating that their child uses a peak flow meter, which was statistically significant ($p=0.002$).
- There was a 26% increase in the number of parents (from 3 to 8) stating that their child feels positive about his/her ability to control their asthma ($p=0.132$).
- There was a 25% increase in the number of parents (from 2 to 6) reporting that their child takes "a lot" of responsibility for their asthma ($p=0.387$).
- The number of children with action plans at home increased from 13 to 17 ($p=0.387$).
- The number of children with action plans at school increased from 17 to 19 ($p=0.625$).
- The median number of days a child needed to use a rescue inhaler decreased from 2 to 0 ($p=0.054$).

Diabetes Youth and Family Groups

Core Performance Measure: I-6.1

DOMAIN

Patient

HEALTH FOCUS

Diabetes, Obesity

OBJECTIVES

Diabetes: Improve glycemic control through improved self-management practices and family support.

Obesity: Decrease the risk factors for obesity through clinical care, family interventions, nutrition education, and physical activity opportunities.

MEASURES/DATA SOURCES

1. Participation
2. Testimonials

PARTNER

Campeños Sin Fronteras (CSF)

Sugarless was a support group for youth and families in Yuma County. Youth either had diabetes or were identified as being at risk for developing chronic disease, either because they were overweight and/or had parents with diabetes, overweight or other chronic conditions. Participants interacted with other children with similar health concerns, and they participated in physical activities such as volleyball, walking, and basketball, and learn about nutrition and healthy eating through guest speakers and class presentations. Topics focused on nutrition and the importance of eating healthy. The group learned about the different health risks associated with poor nutrition such as cardiovascular disease and diabetes. The program started in 2005.

Originally Sugarless was created and designed for children who have diabetes or are at risk. The purpose was to help youth learn about diabetes in creative and fun ways to live a healthier lifestyle. After a month of implementation CSF personnel decided to invite parents and include them in the support group.

The number of sessions each group received and participation fluctuated as the program progressed. Sugarless was modified and will be sustained through new funding, under a program called Salud Para Todos. Sugarless now consists of 6 sessions with youth, followed by 2 home visits with parents. The home visits are designed to extend education to the parents about a balanced diet, and information on type 1 and type 2 diabetes. The program will also have a behavioral health component, to address stress management. Evaluation will consist of a baseline questionnaire completed by a parent during the first home visit. A few weeks after the second home visit, the health educator will conduct a follow-up phone call and administer a post-program questionnaire.

Participation: 2005 –2008

- Sugarless was offered 13 times in the communities of Yuma, Somerton, and San Luis.
- Venues included a senior center, 2 community centers, 2 elementary schools, and a church.
- Depending on the needs of the group and ability to attend, Sugarless included anywhere from 2 to 22 sessions.
- Participation ranged from 3 to 23 youth and adults; most sessions had at least 7 participants.
- Ages of participants ranged from 4 to 54; youth generally were between 6 and 13 years old.

Health Educators Comments: Youth Progress

“One of the children is overweight and shared with me that she has thyroid problems so it’s really hard for her to lose weight. Last semester we talked about how much sugar a 12 oz. soda has, she was really impressed by the information I provided. After returning from summer vacation I noticed her face looked different. She looked slimmer in her face, I mentioned this to her. She then said that she had stopped drinking soda and started walking with her mom every afternoon. She even said that now that she has learned more about nutrition she tries not to eat a lot of junk food. I told her that I was really proud of her efforts and encouraged her to continue with her healthy lifestyle.”

“A student at the elementary school shared with me that after attending the second class of Sugarless she told her parents about the class and explained to them the importance of physical activity, she invited her parents to start walking every afternoon. They have been doing that everyday since she talked to them.”

“A student told me that after seeing how much sugar soda has she stopped drinking it and she is trying to drink more water now. She also told me that she started walking everyday in the afternoon, and she is trying to exercise more. This student is overweight and has asthma problems and is at risk of developing diabetes as well. I feel really pleased with what she has achieved so far, I really believe that this program is changing the lives of many children.”

Health Educators Comments: Parent Feedback

“One parent commented that she is very pleased with her daughter attending the sessions. She mentioned that her 9 year old daughter radically changed after the first class. Her daughter now wants to be eating carrots with lemon instead of Doritos with salsa and lemon. Another parent mentioned that her 3 children are very anxious to come to the sessions. She also mentioned that they are the ones who remind her to bring them to the class each Tuesday.”

“A mother of a participant in the Sugarless group informed me that since her daughter has been attending the group she has been eating more fruits. She added that her daughter is requesting her to buy more fruits, so she can eat the suggested 5 fruits a day. Another participant’s mother was commenting that she would like to have a nutritional guide to share with her other children and husband. I developed a basic nutritional guide, to provide this mother with a basic tool that she can use with her family. Other families in the program will receive this tool through the home visits that the program offers.”

“After the third class, I called each of the parents and asked about their children’s eating behavior. One of the parents whose 12 year old child is overweight said she was starting to make changes. She said her daughter is telling her to buy more healthy foods that contain less fat and has stopped drinking the Tampico juice which is a very popular non-healthy juice among the Hispanic community.”

Community Presentations

on Asthma : *El Aire Es Vida*

Core Performance Measure: I-6.1

DOMAIN

Community

HEALTH FOCUS

Asthma

OBJECTIVE

Increase knowledge and behaviors related to asthma triggers in the home and community (second-hand smoke, pesticides, allergens) and increase awareness of asthma in the community.

MEASURES/DATA SOURCES

1. Events
2. Participation

PARTNER

Campeños Sin Fronteras (CSF)

During the first year of Steps, CSF staff compiled asthma resources in English and Spanish and created culturally appropriate presentations to be given in community settings. Promotoras piloted the materials throughout the community. Presentations address possible causes and symptoms of asthma, home and environmental triggers, and basic self-management. At presentations, referrals are made to the asthma home education program also offered by CSF through the Steps Initiative.

A short presentation was developed as a brief educational intervention for community members with little time to access health programs, such as migrant farm workers. These presentations are often given at the worksite with the support of agricultural employers. A 30-minute presentation was created for audiences with time for more in-depth education, at community centers, PTO meetings and other community activity sites.

To date, CSF has expanded its services, giving presentations in the communities of San Luis, Somerton, Yuma, and Wellton. From the first year of Steps through April 2008, **promotoras and health educators have given over 127 presentations to over 2,728 participants. Presentations have been given to diverse community groups including the following:**

- Agriculture companies / farm workers
- Childcare providers
- DES child care providers
- School personnel and students
- Migrant parent meetings at schools
- PTO meetings
- Chicanos Por La Causa
- Kidscare Coalition meetings
- CSF diabetes support groups
- CSF CVD support groups
- Head Start programs (WACOG)
- Churches
- Girl Scouts

Community Presentations on Asthma October 2004—March 2008						
	YR 1	YR 2	YR 3	YR 4	YR 5	Total
# presentations	9	41	44	27	6	127
# participants	350	1047	787	456	88	2,728

Community Nutrition Sessions and Cooking Classes: *Paso a Paso*

Core Performance Measure: 1-6.1

DOMAIN

Community

HEALTH FOCUS

Obesity

OBJECTIVE

Reduce sedentary behaviors and improve nutritional intake through increased community awareness, nutrition education, and physical activity opportunities.

MEASURES/DATA SOURCES

1. Events
2. Participants
3. Participant testimonials
4. Newsletters

PARTNER

Regional Center for Border Health, Inc. (RCBH)

Through the Steps program RCBH integrated community nutrition sessions, and cooking classes into their *Paso a Paso* Program. Previously the *Paso a Paso* program consisted of the 12-week nutrition and walking club program, which uses the *Pasos Adelante* curriculum.

Beginning in 2005, promotoras offered parts of the curriculum to persons unable to attend the whole program. Community members request specific information, and the promotoras adapted a session from the *Pasos Adelante* curriculum to form a community presentation. Sessions lasted from 1 to 2 hours, and participation is open to all community members. Session topics include:

- Basic nutrition
- Diabetes
- Blood pressure, salt and sodium
- Obesity and diabetes
- Cardiovascular disease
- Food pyramid and food labels
- Diabetes and physical activity
- Cholesterol
- Diabetes and glucose testing
- Diabetes and nutrition
- Osteoporosis
- Fat and fiber
- Nutrition after cancer

Promotoras also offered cooking classes with open participation in community settings. Classes were given to practice and demonstrate healthy cooking techniques, such as measuring portion sizes, use of oils, and sharing healthy recipes and alternatives like cooking with soy.

Community sessions and cooking classes were given in the following settings:

- Salvation Army
- Mobile Home Parks
- Arizona Western College, Somerton
- Cocopah Reservation Headstart
- Yuma Private Industry Council
- Participant homes
- Community Centers

Community Sessions & Cooking Classes: *Paso a Paso*

Regional Center for Border Health, Inc.

Participation in Cooking Classes: 2005 - 2008

From the second year of Steps through May of 2008 promotoras provided over **66 cooking classes** to **783 participants**. Class sizes ranged from 2 to 70 people. In 2005 half the classes had 10 participants or more; in 2006 most classes had between 5 and 10 participants. In 2007 half the classes had 7 or more participants.

Paso a Paso Cooking Classes 2005-2008					
	2005	2006	2007	2008	Total
# Cooking Classes	20	20	12	14	66
# Participants	263	118	150	252	783

Inter-Agency Support for Promotora-led Activities

The **Arizona Nutrition Network** and local Steps partner **Yuma County Public Health Services District** provided cooking kits which were used in the Paso a Paso program.



Praise for Promotoras

“Kikey teaches people at the Fernando Padilla Community Center in San Luis, Arizona how to cook with soy. Kikey has been an Outreach Worker for the Regional Center for Border Health, Inc., for 6 years and is also working with the Steps to a Healthier Arizona Initiative. She is very consistent in taking innovative ideas to the people in the community that are easy for them to use and follow.”

Community Newsletter– RCBH

Promotoras Introducing New Cooking Ideas to the Community

“Cooking classes have raised interest among the residents of South Yuma County since Kikey has been teaching people at various locations of a new option for their food plate and their budget. People have come to love the idea of cooking with soy. People love the idea of introducing something new in their menu. Kikey has made *ceviche* with soy, tuna, and vegetables as well as chorizo with no fat, as well as soy prepared as meat with vegetables. People have enjoyed the cooking classes and frequently ask questions on how they can prepare other foods with the soy bean. Soy milk is not a difficult one to make either as an alternative for people who are lactose intolerant and soy has calcium, iron, and vitamins. Kikey has been able to gather large groups of interested people in Senior Centers, Community Centers, schools and houses allowing her to teach participants how to cook healthy even when their budget might be tight.”

Community Newsletter– RCBH

Community Sessions & Cooking Classes: *Paso a Paso*

Regional Center for Border Health, Inc.

Participation in Nutrition Sessions: 2005 - 2008

From the second year of Steps through May of 2008 promotoras provided over **131 health and nutrition classes**, to which **1316 people** participated. Class size ranged from 1-58 people. Most classes had under 10 people with the exception of 2007, where groups usually consisted of 10 to 25 people.

<i>Paso a Paso</i> Nutrition Sessions 2005-2008					
	2005	2006	2007	2008	Total
# Nutrition Sessions	33	42	36	20	131
# Participants	610	452	192	62	1316

Letters From Participants

As part of a session participants write letters to the promotoras about what they have learned,

“Yo hice algunos cambios en el hábito de comer pues quité un poco el aceite y los azúcares para tener un nivel de vida mucho más saludable.

También comencé por hacer un poco de ejercicio como caminar y andar en bicicleta. “

Translation “I changed some eating habits, by taking out oils and sugars to have a healthier life. I also started to do some exercise like walking and biking.”

“Después de las pláticas de nutrición: aprendí a cuidar un poco más lo que como, la información que se me dio por escrito, se la pasé a mi esposo, relacionado con el cáncer y la nutrición. Es imposible comer 100% nutritivo, pero sí cuido de no comer comidas chatarras lo menos posible, lo mismo le digo diariamente a mi familia. Pienso que estas pláticas son muy importantes para todos.”

Translation “After the nutrition talks I learned to watch what I eat a little more. I passed along the information to my husband related to cancer and nutrition. It’s not possible to eat healthy 100% of the time, but I do try to eat as little fast food as possible, and I tell my family the same thing. I think these talks are very important for everybody.”

“ En la clase de nutrición yo aprendí que se debe comer 5 unidades de frutas y verduras, diariamente. Ya no uso sal en mis alimentos. También aprendí que debo hacer por lo menos 30 minutos de ejercicio diariamente, lo cual no he puesto en práctica pero lo estoy considerando. Debo de tomar por lo menos 2 litros de agua al día.”

Translation “In the nutrition classes I learned that you should eat 5 fruits and vegetable a day. I don’t use salt on my food anymore. I also learned that I should get 30 minutes of exercise a day, which I haven’t put into practice, but I’m thinking about it. I should drink 2 liters of water a day.”

Community Sessions & Cooking Classes: *Paso a Paso*

Regional Center for Border Health, Inc.

Innovative Avenues for Health Education

Promotoras offered sessions at the Yuma Private Industry Council (YPIC) where teenagers can work during the summer months. Many of these teens are from low income families and/or may have had a previous history of violence or drug addiction in the home. The YPIC tries to place them with jobs during the summer and provides support to increase their chances of going to college.

Words of Appreciation from Participants...

“Yo he aprendido como bajar mi colesterol y diabetes. Con más ejercicio y nutrición sobre cómo comer más saludable, más pequeñas porciones de comida. Que yo no sabia que uno podrá comer más seguido pero menos, y que hizo era más saludable para mí. Ahora me siento mucho mejor. Thanks Lupita por tomar tu tiempo para venir y orientarnos sobre la salud. Ahora he quitado el aceite de mis comidas. “

“I have learned how to lower my cholesterol and diabetes. With more exercise and nutrition, how to eat healthier, smaller portions. What I didn't know is that you can eat more often but just less, and this was healthier for me. Now I feel much better. Thank you for taking the time to come and teach us about health. Now I have reduced oils and fats from my foods.”



**Community Nutrition Session
Cocopah Head Start**

Nutrition & Walking Club Program:

Pasos Adelante

Core Performance Measures: I-6.1, Suppl. O-1 and O-2, O-1.1, O-1.3, O-2.1, O-5.3, O-6.1, O-6.2, O-8.1

DOMAIN

Community

HEALTH FOCUS

Obesity, Diabetes

OBJECTIVE

Diabetes: Improve glycemic control through improved self-management practices and family support.

Obesity: Decrease the risk factors for obesity through clinical care, family interventions, nutrition education, and physical activity opportunities.

METHODOLOGY

Participants completed a pre-post questionnaire with the assistance of promotoras. The questionnaire addressed participant demographics and knowledge and behavior related to nutrition and physical activity. Hypothesis testing on categorical responses was conducted using the Exact McNemar's test for proportions or the Wilcoxon sign-rank test as appropriate. Variables that were not normally distributed were treated as categorical. Continuous responses were tested with paired t-tests. The overall level of statistical significance was adjusted (Sidak corrected alpha = 0.001) to account for multiple comparisons.

Promotoras also provided written testimonials about the progress of the program and participants.

MEASURES/DATA SOURCES

1. Participation
2. Demographics
3. Pre/post questionnaire
4. Promotora testimonials

PARTNER

Regional Center for Border Health, Inc.

Pasos Adelante is a 12-week nutrition and walking club program for prevention of chronic disease. The curriculum was adapted from *Your Heart, Your Life* by the National Heart Lung and Blood Institute for the *Border Health ¡SI!* pilot project in 2001. To meet the needs of Arizona border communities *promotoras* from RCBH / WAHEC were involved in the adaptation of the curriculum and piloted the program.

Through the Steps Initiative, RCBH / WAHEC is able to deliver the program in several communities including San Luis, Somerton, Yuma, and Wellton. The program is given in Spanish at neighborhood community centers and schools. Many of the participants are part of the local farm worker community and they and/or their family members often migrate with work. The *promotoras* give 12 interactive sessions on nutrition, and 3 times a week they lead participants in community walking events. Many participants also walk on their own. Participants are encouraged to volunteer as walking club leaders, and many groups continue to walk after the program has ended.

After the Steps Initiative ends, the Western Arizona Area Health Education Center (WAHEC) program at RCBH will sustain the *Pasos Adelante* Program.

Adapting to Community Needs

Many participants work in seasonal agriculture and found that a 12 week program conflicted with their work, family and holiday schedules. When necessary, *promotoras* worked around participants' schedules at a faster pace, offering 2 classes per week, in order to complete the curriculum and help the participants graduate.

Nutrition & Walking Club Program: *Pasos Adelante*

Regional Center for Border Health, Inc.

Participation: 2004-2008

From 2004 through April of 2008, the Steps *Pasos Adelante* program had **419 participants**. Most participants were married, Hispanic women, and the average age was 44 years. About 22% of the participants had completed high school or more, while 5% had never been to school.

Participants are asked if they have ever been told by a doctor that they have certain health conditions. Approximately 34% have high cholesterol, 28% have high blood pressure, and 20% have diabetes.

Approximately 33% of the participants had no kind of health insurance, and 45% had AHCCCS (Medicaid) or Medicare. Some participants (about 2%) used an emergency AHCCCS plan that exists for persons who have had legal residency less than five years. About 14% had a personal or employer based health plan. Other systems used included the Mexican IMSS, and a the Capaz-Mexico program, which is a provider discount program. *Promotoras* assist participants with no insurance in signing up for AHCCCS if eligible or the Capaz-Mexico program.

How Did You Hear About *Pasos Adelante*?

When asked how they heard about the program, participants gave 478 responses. The most frequent response was a *promotora* or other personnel (60%), followed by a friend (13%). Participants also heard about the program through school (9%), a family member (8%), or provider (4%). Other places mentioned where *promotoras* conducted outreach included the Migrant Program, the Family Literacy Program and Head Start.

Participant Demographics	
Gender (n=419)	
Female / Male	90% / 10%
Age (n=396)	
Range	18-86
Mean age, years (SD=14.95)	44
Marital Status (n=412)	
Married	79%
Widowed	5%
Single/ Divorced/ Separated	15%
Ethnicity (n=401)	
Hispanic	97%
Anglo	3%
Education (n=321)	
Some / completed college	15%
Completed high school	7%
Some high school	17%
No school	5%

Insurance and Health Status	
Insurance (n=321)	
Medicare/ AHCCCS	45%
None	33%
Private / Employer	14%
Other	8%
Health Conditions	
High cholesterol (n=406)	34%
High blood pressure (n=404)	28%
Diabetes (n=402)	20%
Asthma (n=397)	5%
Smokes (n=408)	3%

Nutrition & Walking Club Program: *Pasos Adelante*

Regional Center for Border Health, Inc.

Outcomes: Pre-Post Assessment

Pre and post program questionnaires were completed by **330 participants (82%)**. Knowledge questions addressed BMI screenings / healthy weight and recommended fruit and vegetable intake. These questions were taken from the community awareness survey implemented at health fairs and other community outreach events (see Community Outreach report) . Behavior questions addressed nutrition and physical activity. Participants also answered questions about quality of life.

Awareness of BMI

To gauge if participants had been screened for overweight, or had an idea of a healthy BMI, they were asked if their weight was healthy for their height. There was a **statistically significant decrease** in participants who answered “I don’t know” ($p < 0.0001$). There was a greater increase in “no” answers than “yes”, indicating more participants became aware that they did not have a healthy BMI.

Awareness of BMI (N=324)	Pre	Post
Is your weight healthy for your height?	Yes (19%) No (57%) Unsure (23%)	Yes (23%) No (71%) Unsure (7%)*
*McNemar’s test ($p < 0.0001$)		

Knowledge About Nutrition and Physical Activity

- Participants reported a **statistically significant increase** in knowledge of the recommended fruit and vegetables intake. The number of participants who reported “I don’t know” decreased from 31% to 0%, which was also statistically significant.
- Participants also reported a **statistically significant increase** in knowledge of recommended levels of physical activity.
- Participants reported a **statistically significant increase** in awareness of the benefits of physical activity.

Nutrition and Physical Activity Recommendations (n=329)	Pre	Post
5 fruits and vegetables a day	24%	62%*
30 minutes of physical activity 5 or more days a week	53%	93%*
*Exact McNemar’s test ($p < 0.0001$)		

Physical Activity Reduces the Risk of: (n=329)	Pre	Post
heart disease	80%	98%*
stress	66%	89%*
obesity / overweight	88%	98%*
depression	62%	88%*
diabetes	64%	95%*
*Exact McNemar’s test ($p < 0.0001$)		

Nutrition & Walking Club Program: *Pasos Adelante*

Regional Center for Border Health, Inc.

Nutrition

Participants report how many times a week they consume certain foods and beverages. Responses are calculated to weekly averages.

- There was a **significant decrease in consumption of soda and sweet drinks** such as sports drinks, *aquas frescas*, fruit punches.
- There was a **significant increase in fruit, vegetable, and salad** consumption.

Foods and Beverages Times per week	Pre Mean (SD)	Post Mean (SD)
Sodas (n=321) (not diet)	4.7 (6.0)	2.7 (3.4)*
Sweet drinks (n=322) (not soda or natural juice)	5.2 (7.9)	3.4 (4.6)*
Fruit (n=318) (not juice)	10.8 (9.4)	15.2 (8.7)*
Salads (n=321) (not fruit salad)	6.0 (5.1)	7.1 (12.6)*
Vegetables (n=324) (not potato)	6.9 (6.1)	8.1(13.1)*
*Paired t-test (p< 0.0001)		

Milk

Participants are asked to report the **type of milk they drink most**.

- There was a **statistically significant decrease** in the median fat content in milk consumed by participants (Wilcoxon signed rank test, p<0.0001).
- There was a **13% decrease in whole milk** consumption, and a **7% decrease in 2% milk**.
- There was a **17% increase in 1% milk** consumption, and a **4% increase in skim milk** consumption.

Milk Type (N=330)	Pre	Post
Whole	19%	6%
2%	46%	39%
1%	24%	41%
Skim / Fat free	4%	8%

Oils

Participants (N=339) were asked to report the **2 types of oils they use most**. There were 575 responses at pre, and 581 responses at post.

- There was a **significant increase** in the percentage of responses for **canola** and **spray oils**.
- There was a **significant decrease** in the percentage of responses for **corn oil** and **butter**.

Then participants were asked to choose the **2 types of oils they use to fry with most**. There were 555 responses at pre and 569 responses at post.

Percentage of Responses				
Oil Type	Most Used		Used to Fry	
	Pre	Post	Pre	Post
Canola	21%	30%*	23%	31%†
Olive	17%	20%	13%	17%†
Spray	4%	7%*	2%	6%†
Corn	23%	17%*	25%	20%†
Butter	4%	2%**	3%	2%
McNemar's test (*p<0.0001, **p=0.0003, †p<0.001)				

- There was a **significant increase** in the percentage of responses for **canola, olive, and spray oils**.
- There was a **significant decrease** in the percentage of responses for **corn oil**.

Nutrition & Walking Club Program: *Pasos Adelante*

Regional Center for Border Health, Inc.

Physical Activity

There was a **significant increase in the number of participants who stated they go out walking** ($p < 0.0001$). The number of participants who were walking for exercise increased from 62% to 81% ($n = 327$).

There was a **significant increase in the average number of minutes that participants walked per week** ($p < 0.0001$). The average number of minutes increased by 32 minutes, from 131-161 minutes ($n = 130$).

There was a **8.2% increase** (pre=87.8%, post=79.6%) **in participants reporting that they walked with somebody else**, which was not statistically significant ($p = 0.02$).



Pasos Adelante Walking Group
Yuma, AZ.

Quality of Life: Healthy Days

Participants are asked how many days in the past month they were unable to do their regular daily activities due to a physical health problem or illness. Then they are asked the number of days they were unable to do these activities due to emotional problems such as feeling blue, depressed, or anxious. A Wilcoxon signed-rank test was performed to determine if there was a statistically significant reduction in participants reporting missed days overall.

- Overall for both questions the highest percentage of responses indicated 0-5 days at both pre and post.
- There was no significant change in the number of missed days due to physical health problems ($p = 0.831$) or emotional difficulties ($p = 0.004$).

Nutrition & Walking Club Program: *Pasos Adelante*

Regional Center for Border Health, Inc.

Promotora Story By Lupita

“Every time I start nutrition classes with a physical activity component people are always astonished at how our food selections and habits can greatly affect our health for the good or bad. Every time a participant mentions how well they have understood the classes and the changes and effort it took them to get to a goal, I consider it a personal achievement because I know that what I am teaching to them becomes more than words. Their experiences are the force that keeps me going.

A few weeks ago I started a group at our office located within the Martin Luther King Jr. Center. A man who had previously had open-heart surgery joined our 12 week/12 session Nutrition and Physical Activity Program. When he was 17 years old he contracted rheumatic fever and with time two of his vesicles were hardened. He spent 20 years on penicillin treatment. In 1997 he had open-heart surgery, had two cardiac valves replaced, and a pacemaker. He was in the class because his wife invited him since he did not want to make any changes in his eating habits and he has diabetes, high cholesterol levels among other health and nutrition related conditions. His wife thought the class would be of assistance to him. He has mentioned that he knew of the importance of chronic disease prevention but had not been able to make it work at home because he did not believe it was so important. These sessions have helped him realize that he needs to make changes in his daily lifestyle.

The participant has mentioned that his wife has also benefited from the program because she has started cooking healthier. She now uses oil in her cooking instead of lard. She has also switched whole milk to 1% milk. He has also seen that his wife has started walking. Before, she used to say that she did not need to because she felt fine. In class the couple is the first to ask questions. Sometimes they argue but it’s funny because they say, ‘You see Lupita is saying what I have been telling you all along.’

They enjoy listening to the information and they put it to practice, even their grandchildren are eating healthier. The man lost 30 pounds before his heart surgery and now keeps losing more due to the modifications he has made because of the program classes. He thanks the programs our agency has to offer in benefit of our community because the information is helping him more than he ever thought it would. He has quite a few health complications and he knows that making the necessary changes will bring a healthier way of life and is making an effort for a healthier life style. He has now learned to watch his eating habits and has increased awareness due to the program classes.”



Lupita’s walking club participants stretch before engaging in physical activity. Carver Park area in Yuma, AZ.

Community Outreach: Health Fairs and Events

Core Performance Measures I-6.1

DOMAIN

Community

HEALTH FOCUS

Asthma, Diabetes, Obesity

OBJECTIVES

Asthma-Increase knowledge and behaviors related to asthma triggers in the home and community (second-hand smoke, pesticides, allergens) and increase awareness of asthma in the community.

Diabetes-Increase identification of DM and support self-management behaviors by conducting community-based DM screening and increasing community awareness of DM self-care.

Obesity-Reduce sedentary behaviors and improve nutritional intake through increased community awareness, nutrition education, and physical activity opportunities.

METHODOLOGY

Partners document events and approximate number of community members participating. They document the number of screenings and type, and referrals to providers if any. It is assumed that all participants receive health information and information about available programs and services.

MEASURES/DATA SOURCES

1. Events
2. Participation
3. Screenings
4. Referrals to providers

PARTNERS

**Campeños Sin Fronteras
Regional Center for Border Health, Inc.
UA Yuma County Cooperative Extension
Yuma County Public Health Service District**

Steps partners collaborate, and organize a variety of health-related events. Activities include the promotion of the event and recruitment of participants, delivery of educational information, screenings and referrals. Brief one-on-one education also takes place. These events connect people to local health resources. Health fairs in South Yuma County serve a population with little or no access to health care and services. For many participants these events are the only venue to receive immunizations and screenings, and become aware of community health issues.

Health fairs are important to this community because they provide a culturally appropriate environment for health promotion. Participants are able to receive information and services because they can relate to other participants and to the promotoras who speak their language and are supportive. The setting includes the use of popular music, and healthy foods that are consistent with cultural preferences and local availability.



Women's Expo, Yuma Arizona

Community Events and Health Fairs

Campeños Sin Fronteras, Regional Center for Border Health,
Yuma County Cooperative Extension, Yuma County Public Health Services District

Examples of the community events where Steps partners conduct outreach, screenings, and referrals

Community

Foothills Health Fair
Gadsden Health Fair
Dateland Health Fair
Día del Melón
Bajo el Sol Health Fair
Cocopah Wellness Fair
Bi-national Health Fair
AZ Western College Health Fair

Farm workers

Día del Campesino
Fresh Innovations Health Fair
Dole Health Fair
Joshua Inc. Health Fair
Outreach in agricultural fields

Youth

Día del Niño
YMCA Healthy Kids Day
School Health Fairs
Community Youth Fairs
Neighborhood Back to School Celebration

Women

Women's Health Fair
Women's Health Expo

Yuma's Many Community Health Events

Steps promotoras, community health workers, health educators and other staff distribute information about nutrition, the importance of physical activity, as well as asthma and diabetes. They are available for one-on-one discussions, and refer community members to health programs and other community services. Some Steps partners offer screenings and make referrals to providers.



Participation: 2006-2008

Information was collected on health fairs beginning in Year 3 through the first quarter of Year 5 (October 2006 - December of 2007). The number of events and approximate participation were not tracked in the first 2 years of the Steps Initiative. Steps partners documented over 132 events in Years 3-5 reaching over 10,000 people annually. Activities and nutritional information are delivered at the majority of these events, including referrals to various health services and programs offered in the community. Many participants have the opportunity to be screened and receive referrals to providers. Documentation of screenings and referrals was not very consistent, however, in the first 3 months of Year 5, one agency screened +/- vaccinated over 3000 people and made over 30 referrals to providers.

Outreach and Health Fairs	Year 3	Year 4	Year 5	Total
Number of events	58	54	20	132
Approximate number of participants	12,100	14,444	11,450	37,994
* Year 5 only consists of the first 3 months, October—December				

School Health Index and Wellness

Core Performance Measure: I-6.1

DOMAIN

Schools

HEALTH FOCUS

Asthma, Diabetes, Obesity

OBJECTIVES

Asthma- Decrease the incidence of asthmatic episodes of students by increasing capacity of school personnel to respond appropriately, and developing school policies that reduce asthma triggers and support self care.

Diabetes- Improve school nutrition, physical activity and diabetes awareness through increased capacity of school personnel, student programs, and development of related policies.

Obesity- Improve school nutrition and physical activity through increased capacity of school personnel, student programs, and the development of related policies.

METHODOLOGY

Evaluation focused on the process and completion of the SHI, the development and implementation of action plans, and documentation of activities or improvements made as a result of the process.

MEASURES/DATA SOURCES

1. Participation
2. Score cards
3. Action Plans

PARTNER

Regional Center for Border Health Inc.

The School Health Index (SHI) was developed by the Centers for Disease Control and Prevention to assist schools in creating an environment conducive to student health. The SHI is a self-assessment and planning tool for elementary, middle and high schools aimed at improving student health, nutrition, and physical activity. By promoting healthy behaviors schools can increase student capacity to learn, reduce absenteeism, and improve physical fitness and mental alertness.

The SHI involves school administrators, teachers, school nurses, food service workers, and parents in a self-assessment process that allows schools to:

- Identify the strengths and weaknesses of their health promotion policies and programs;
- Develop an action plan for improving the school health environment; and
- Involve teachers, parents, students, and the community in improving school programs.

The SHI directs the school administration to select a school health team consisting of faculty, staff and parents. The school health team then engages in a process consisting of an orientation session, eight modules assessing different areas related to physical activity and nutrition, and a planning session designed to help schools prioritize policy changes. Team members participate in the modules for which they have the most expertise and interest.

Through the Steps Initiative, the Regional Center for Border Health, Inc. acted as the local lead agency, providing schools with an external coordinator who gives technical assistance to the school in implementing the SHI. Additionally, the Steps grant specialist at the Arizona Department of Education provided technical assistance to Steps partners, and conducted community-specific train-the-trainer events.

In Yuma County, the SHI coordinator found it difficult to find schools willing to participate. The agency's first strategy was to work with students in the health career club at the Western Arizona Area Health Education Center (WAHEC) to conduct the SHI assessment. Usually one school staff person was identified as a coordinator. Later in 2006, the USDA wellness policy mandate created a new way to work with schools and provide assistance in the creation of a local wellness policies by using the SHI as an planning and evaluation tool. Schools became more supportive of the SHI and the creation of school wellness teams.

School Health Index and Wellness

Regional Center for Border Health, Inc.

Participation in the School Health Index

- In 2004, 1 middle school and 1 high school began the SHI. However they did not complete all the modules. One elementary school completed the 8 modules but did not continue to create or implement action plans. These schools declined participation when approached after summer or holiday vacations by the Steps program. Often teachers did not have time or changes in administration caused the program to be discontinued. A fourth school was approached but declined because they did not have time.

Schools Implementing the School Health Index Yuma County 2004-2008				
	2004	2005	2006	Total
Elementary (2 districts)	1	1	5	7
Middle School (2 districts)	1	0	3	4
High School (1 district)	1	1	1	3
Total	3	2	9	14

- In 2005, RCBH worked with a high school principal to allow the Health Careers Club to complete the SHI as an alternative. Schools were stating their staff did not have time to do the SHI. The school nurse acted as the internal coordinator, and helped coordinate the Club to work through the modules with RCBH. The students sought information from food service, and other personnel when they were unable to answer the questions. There were 11 students in the Club, who attended most the meetings. Six students participated in the action planning process.

Note on School Participation

In 2005 Steps contacted an additional 9 schools that declined participation because personnel thought that the SHI would not contribute to academic success because it is not a program where students are directly addressed.

With the advent of the school wellness policy requirement in 2006, more schools took interest, and 9 schools participated in the SHI. Members of the SHI teams went on to work on the district wellness policies.

- In 2006, 9 schools participated in the SHI: 5 elementary schools from 2 districts, and 4 middle and high schools from 3 school districts. In the Somerton School District a school nurse organized a day for the whole district (four elementary and one middle school) to complete all the modules.

School Health Index and Wellness

Regional Center for Border Health, Inc.

Brief Review of School Health Index Self Assessment

- The 8 modules are as follows:
 1. School Health and Safety Policies and Environment
 2. Health Education
 3. Physical Education and Other Physical Activity Programs
 4. Nutrition Services
 5. School Health Services
 6. School Counseling and Psychological Services
 7. Health Promotion for Staff
 8. Family and Community Involvement

- After completing a series of questions in each module, a score is tallied from 0% to 100%:
 - Low = 0% - 20%
 - Medium/Low = 21% - 40%
 - Medium = 41% - 60%
 - Medium/High = 61% - 80%
 - High = 81% - 100%

Results: Elementary Schools (2 School Districts)

- Elementary schools consistently scored **medium-low** or **low** in module 7 “**Health Promotion for Staff.**”
- Half of the schools scored **medium-low** on module 8 “**Family and Community Involvement.**”
- A majority of the schools score **high** on module 6 “**School Counseling and Psychological Services.**”

Overall Scores: <u>Elementary Schools</u>								
8 Modules								
	1	2	3	4	5	6	7	8
School #1 (2005)	med-high	med-high	med-high	med-high	med-high	med-high	med-low	med-low
School #2 (2005)	med-high	high	high	med-high	high	high	low	med-high
School #3 (2006)	med	low	med-high	med-high	med-high	high	low	med-low
School #4 (2006)	med-high	med-high	med	high	med-high	high	low	high
School #5 (2006)	med-high	med	med-high	high	high	med-high	low	med-high
School #6 (2006)	med	med-high	med-high	med-high	med	high	low	med-low

School Health Index and Wellness

Regional Center for Border Health, Inc.

Results: Middle and High Schools (3 districts)

- A majority of the schools scored **medium-low** or **low** in module 7 “**Health Promotion for Staff**”
- A majority of the schools scored **medium-low** or **low** in module 8 “**Family and Community Involvement**”
- 1 middle school and 1 high school scored **high** in four modules

Overall Scorecards: Middle Schools and High schools								
8 Modules								
Middle + High Schools	1	2	3	4	5	6	7	8
School #1 HS (2005)	med-high	med	med	med	med	med-low	med-low	low
School #2 HS (2006)	high	high	high	med-high	med-high	med-high	high	med-low
School #3 MS (2006)	med-high	high	med-high	high	high	high	low	med-high
School #4 MS (2006)	med	med-low	No data	med-high	med-high	med	low	med-low
School #5 MS (2006)	med	med	med-low	high	med-high	med-high	med	med-high



An SHI team works together through the modules on-line

School Health Index and Wellness

Regional Center for Border Health, Inc.

Selected Action Plans and Outcomes

Health Screenings for Elementary School Teachers

In 2005, an elementary school SHI team addressed the need for staff health promotion by planning staff screenings, in coordination with RCBH. The RCBH Mobile Clinic came to the school and conducted 30 screenings.

High School Nutrition Day

One high school conducted its first Nutrition Day during National Nutrition Month in March of 2006. The first event was considered a “huge success”. The school continues to have Nutrition Day each year. Members from the SHI team/ Health Careers Club and community partners participate from 9:30 in the morning until 1:00. The majority of activities take place during 2 lunch sessions. Also, presentations can be given to a class in coordination with classroom teachers. Activities include:

- Distribution of healthy food snacks and drinks to students
- Distribution of literature on healthy eating and exercise
- Samples of unusual snack foods like snap peas
- Activities and games to involve students in learning about good health, nutrition and exercise
- Visual samples and exhibits on good vs. bad nutrition

District-wide Health Promotion Fair and Screenings for Staff

In 2006, 3 school teams that completed the SHI in the Gadsden Elementary School District planned a health promotion event for the whole district, which includes 9 schools. The SHI leaders planned and coordinated the event. Through Steps, RCBH purchased a Health Risk Assessment software system that produces group (district level) and individual reports. At the event personnel are screened for blood pressure, cholesterol, blood glucose, vision and hearing. Referrals are made at the event. Participants also complete a health risk assessment questionnaire. RCBH analyzes the data, and sends confidential sealed reports to the schools to be delivered to staff mail boxes. The school wellness team hopes to conduct wellness fairs for staff on an annual basis.

Student Health Screenings

In 2006, one Somerton school district (five elementary schools) conducted a children’s screening day, as a result of the SHI. Health screenings for students included height, weight, oral health and lice. Students also had their fingerprints taken in collaboration local police department safety program . The Steps program staff at RCBH assisted with the screenings at one of the schools.

School Health Index and Wellness

Regional Center for Border Health, Inc.



**2nd Annual District Staff Wellness Fair
March 11-13, 2008**

Steps, School Health Index, and School Wellness Policy Committees

Many SHI team members from 3 districts in Yuma County formed committees to create district wellness policies. Steps partners also participated on the Policy Committees.

Gadsden Elementary School District #32

(6 elementary schools, 2 middle schools)

- Food Service Director
- 1 Assistant Principal
- 2 PE teachers
- Cafeteria Manager
- District Nurse
- 1 English Teacher
- 1 Parent
- Steps Partner, RCBH

Somerton School District

(4 elementary schools, 1 middle school)

- (20+ participants....)
- School Nurses
- Several Teachers
- PE Teachers
- Health Teachers
- Assistant Principal
- Steps partner, YCPHSD

Yuma Union High School District

(5 high schools)

- 1 District Administrator
- 2 PE teachers
- Food Service Director
- Cafeteria Manager
- 2 Students
- 1 Parent
- 1 Steps Partner, YCPHSD

NAP SACC: Nutrition and Physical Activity Self-Assessment for Child Care

National Core Performance Measure: I-6.1

DOMAIN

School

HEALTHY FOCUS

Obesity

OBJECTIVES

Improve school nutrition and physical activity through increased capacity of school personnel, student programs, and the development of related policies.

METHODOLOGY

The pre-assessment is used as an initial checklist to assess the child care setting and create an action plan. Follow up includes re-administration of the assessment 9 months later, and documentation of implemented improvements. Facilitator feedback and testimonials also inform successes and specific changes to the child care setting.

Hypothesis testing on the number of best practices at baseline compared with post-intervention was conducted with the Wilcoxon signed-rank test with Bonferroni adjusted $\alpha = 0.0167$.

MEASURES/DATA SOURCES

1. Participation
3. Pre/post assessment
1. Action plans
3. Testimonials
4. Community capacity building
5. Recommendations

PARTNER

Yuma County Public Health Services District (YCPHSD)

The goal of the NAP SACC is to promote healthy eating and physical activity among young children in child care and preschool settings. The program was developed to build on existing interventions which targeted individual behaviors in children and address an unmet need to intervene in the child care environment. The intervention involves five key components: 1) a self-assessment with child care directors and staff, 2) development of action plans, 3) educational workshops, 4) targeted technical assistance, and 5) an ongoing process of evaluation and revision.

With Steps funding a NAP SACC coordinator was hired at the Yuma County Public Health Services District to work with child care centers and professionals in the early childhood development community. NAP SACC materials were adapted to fit the local community, resulting in a series of seven workshops administered by the NAP SACC coordinator with each child care site.

The first workshop *About the NAP SACC* was developed to raise awareness of childhood obesity and recruit centers to participate in the program. The second workshop consisted of completing the self-assessment questionnaire addressing 56 best practices in nutrition and physical activity. Each center was given its assessment score at the third workshop; and based on their scores, the NAP SACC coordinator worked with staff to identify priority areas that needed improvement and develop strategies to address them. The action plans included specific activities to address each priority, materials, resources, personnel responsible to complete the activities, a timeframe, and evaluation.

Generally, in order to address professional development for staff and education for parents, action plans included participating in the three NAP SACC workshops: *Healthy Eating for Preschoolers*, *Physical Activity for Preschoolers*, and *Personal Health- Taking Care of Yourself*. Adaptations included translating the fourth and fifth workshops into Spanish so that parents could attend. The NAP SACC coordinator utilized additional resources from the Health District and created interactive exercises.

From 2005 to 2008 the NAP SACC program was implemented in 30 child care centers in six communities. These centers included 22 not-for-profit, six private/for profit, and two school-based centers. Seventeen Head Start programs participated, including five Migrant and one Tribal program. Together, these 30 centers employed over 337 staff serving 1,876 children.

Participation: 2005—2008

- Through the Steps program **30 centers** in **6 communities** of Yuma County have participated in the NAPSACC.
 - 22 in Yuma
 - 4 in San Luis
 - 3 in Somerton
 - 1 each in Wellton, Roll, and Cocopah Tribe
 - 22 not for profit
 - 6 private/ not for profit
 - 2 school based
- Centers consist of **337 staff** and serve over **1876 children**.
- In general, **all staff members participate** in the NAP SACC activities and workshops.

Outcomes: NAP SACC Assessment

Approximately nine months after the action planning process, a final workshop included completing the post assessment. All centers completed both a pre and a post assessment. However the NAP SACC assessment tool was modified by developers at the University of North Carolina after Steps partners in Yuma County had begun the program. Therefore only a subset of 17 centers used the revised tool at both pre and post program intervention. The content of the two instruments was such that analysis was not comparable; however, generally speaking, the extent to which all 30 centers indicated an improvement or not was similar.

- At pre-program assessment, most of the 17 centers were already implementing 25 of the 38 (66%) nutrition, and 10 of the 18 (55.5%) physical activity best practices identified on the NAP SACC assessment tool.
- Overall there was an increase in the number of child care centers implementing 49 of the 56 (87.5%) best practices.

Outcomes: NAP SACC Assessment

- The median number of best practices increased from 36 to 44, which was a statistically significant improvement (p=0.0003).
- The median number of nutrition best practices increased significantly from 25 to 30, which was a statistically significant improvement (p=0.0003).
- The median number of physical activity best practices increased significantly from 10 to 14, which was a statistically significant improvement (p=0.0014).

Summary of Best Practices Implemented Baseline and Post By Center (N=17)

Center ID	# Nutrition Best Practices Implemented at Baseline	# Nutrition Best Practices Implemented Post Intervention	# Physical Activity Best Practices Implemented at Baseline	# Physical Activity Best Practices Implemented Post Intervention	Total Number of Best Practices Implemented at Baseline	Total Number of Best Practices Implemented Post Intervention
11	29	28	8	13	37	41
12	22	34	7	10	29	44
13	21	25	11	13	32	38
14	25	29	11	15	36	44
15	25	32	11	13	36	45
16	24	31	9	10	33	41
17	26	28	12	12	38	40
18	18	22	9	6	27	28
19	13	28	10	16	23	44
22	16	30	8	14	24	44
23	26	29	11	16	37	45
24	9	24	6	8	15	32
26	33	35	14	16	47	51
27	25	36	14	16	39	52
28	29	36	10	16	39	52
29	31	35	8	17	39	52
30	30	36	15	18	45	54
Median	25	30	10	14	36	44
Minimum	9	22	6	6	15	28
Maximum	33	36	15	18	47	54
p*	0.0003		0.0014		0.0003	

*Wilcoxon sign-rank test with Bonferroni-adjusted alpha level = 0.0167

Improvements to the Nutrition Environment: Most improvements were in the areas of “menus and variety”, “meals an snacks”, and “foods offered outside of regular meals an snacks”:

- Centers provided more whole grain foods.
- Staff helped children gauge hunger.
- Parents were given guidelines, which were enforced, about foods brought for parties and celebrations.
- Staff served snacks family-style in the classroom instead of from the cafeteria.
- Staff made an effort to eat with children and make positive statements about healthy foods.

One center initiated a salad bar for children once a week by asking parents to send a fruit or vegetable. The activity involved everybody, including the children who helped prepare the food.

Improvements to the Physical Activity Environment:

- Centers showed visible support for physical activity by displaying related posters, books, and pictures in every room.
- Staff made positive statements about physical activity.
- Centers increased the amount of indoor play space.
- Centers increased the types and amount of portable play equipment.
- Modifications were made to outdoor play space including removing rocks, placing the sandbox under a tree for shade, and providing easily accessible drinking water outside.
- Equipment was rearranged to accommodate more running and games.

Mini-Grants for Portable Play Equipment

Because many centers lacked portable play equipment, Steps partners in Yuma offered competitive mini-grants to centers that had participated in the NAP SACC program, specifically to purchase equipment.

With the funding, centers purchased waffle blocks, balance beams for obstacle courses, balls, bean bags, jump ropes, basket ball hoops, and tricycles. Centers reported choosing items that would last a long time and could be used indoors when the weather was bad.

The equipment was incorporated into teaching curricula and physical education. One center stated that many children began asking if “every day was PE day.”



Education for Staff and Parents: To address the need for training and education identified through the pre-program assessment, child care providers included participation in the NAP SACC workshops as part of their action plans. The NAP SACC coordinator arranged for additional trainings and connected child care providers to additional resources in the community. In particular the workshop *Taking Care of Yourself* had an impact on childcare staff:

- **Staff worked on personal goals such as returning to their fitness programs.**
- **Staff reported trying new things like increasing fiber intake or using a pedometer.**
- **Co-workers joined exercise programs together, initiated friendly competitions, and started regular hikes and social time around physical activity.**
- **Staff reported introducing new health behaviors in their own homes with their families.**

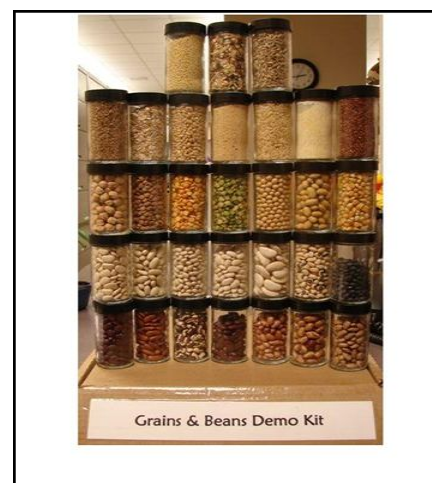
Increasing Family and Community Involvement

Several child care centers shared their new portable play equipment at community events and parents became more involved in physical activity with their children. One center involved parents by organizing the end of the year celebration as a field day for children. Relay races, parachute play, jumper balls and kick ball were among the activities. Feedback from parents and staff was very positive and some parents were heard to say that they were going to continue doing some of the field day activities with their families at home.

Another center reported that children involved their parents by describing and telling stories about their activities using the new outdoor equipment. Some parents even purchased similar items to be able to do these activities at home. One Head Start site manager stated, "What has been really nice is having the children tell their teachers that their parents have been spending more outside time with them, playing ball, riding bikes, taking nature walks and going to the park."



A map of Yuma County is provided at NAP SACC workshops to indicate where families can be physically active together.



Many providers and parents were unclear about whole grains. Hands-on demonstration kits were developed to facilitate learning.

Community Capacity and Infrastructure

Child Care Health Consultant (CCHC) Certification

In 2005 the Steps NAP SACC coordinator became the first certified Child Care Health Consultant in Yuma County, enhancing the capacity of the Health District to work with child care providers.



NAP SACC facilitator doing hula hoop while holding Child Health Care Consultant Certificate

Statewide Child Care and Early Education Development System (S*CCEEDS)

The Steps NAP SACC program and coordinator were approved through Child and Family Resources under S*CCEEDS. As a result, the NAP SACC coordinator became a registered S*CCEEDS trainer on the Arizona Career Registry, which is funded by the Arizona Department of Economic Security's Child Care Administration and child care providers who participated in the NAP SACC could receive up to 6.5 Continuing Education Units (CEUs).

Home Based Child Care and Child Care Resource and Referral

There are over 100 licensed home-based child care providers in Yuma County. These providers are often in the most need for professional development and training because they don't have the resources that federally funded centers have for this purpose. The NAP SACC coordinator worked with Child Care Resource and Referral to coordinate a 3-day NAP SACC training and 6-month follow-up for these providers who are also required to earn CEUs.

Raising Awareness Among the Early Childhood Development Community

The NAP SACC coordinator integrated efforts into the early childhood development community, resulting in an increased awareness of childhood obesity. She strategically presented at events such as the Yuma County PK Staff Development Conference for school educators, the Yuma Association for the Education of Young Children conferences, and Child Development classes at Arizona Western College.

Recommendations

- **The CCHC Model:** The NAP SACC was successful because the facilitator adopted the Child Care Health Consultant model and philosophy. She acted as a health consultant who was continually available to meet the needs of child care providers.
- **Incentives:** Receiving CEUs through S*CCEEDS is an effective incentive for staff.
- **Community Involvement:** YCPHSD and the NAP SACC program stay involved in community-based activities by attending local Steps partners' meetings, coalition meetings, and participating in community health events. The NAP SACC coordinator was on the health advisory committee for WACOG, the umbrella organization for Head Start. Through NAP SACC, YCPHSD sustained relationships with child care providers. The coordinator was a member of the Yuma County Chapter of the National Association for the Education of Young Children (YCAEYC), and served as Health Chair for Cradle to Kinder, a group formed with the support of the Early Childhood Fund.



“We can already see the differences in what the children are bringing for lunch. They are bringing things like strawberries or whatever produce is in season. The staff are more aware and are making suggestions to parents.

Thank you.” -Director, YMCA Y CARE

“I stopped by the tribal Head Start center and was asked by program staff to please look at the snack tray. Part of their action plan was to provide the children with more fresh whole grains, and fruit instead of fruit juices. The snack tray included a beautiful variety of fresh fruits and a bowl of whole grain muffins. I regretted not having a camera with me because it was a beautiful, nutritious tray of snacks.” - NAP SACC Facilitator, YCPHSD



Asthma Presentations For Childcare

Providers: *El Aire Es Vida*

Core Performance Measure: I-6.1

DOMAIN

Schools

HEALTH FOCUS

Asthma

OBJECTIVE

Decrease the incidence of asthmatic episodes of students by increasing capacity of school personnel to respond appropriately, and developing school policies that reduce asthma triggers and support self care.

MEASURES/DATA SOURCES

1. Events
2. Participation
3. Testimonials

PARTNER

Campeños Sin Fronteras (CSF)

From 2005 to date, CSF adapted their *El Aire Es Vida* community presentations on asthma to meet the needs of childcare providers. Initially, many providers were not receptive to the issue of asthma. However throughout the course of Steps, CSF has been able to work with home-based providers through raising awareness and dedication.

By adding an asthma checklist to the Nutrition and Physical Activity Self Assessment for Child Care Centers (NAP SACC), implemented by Steps partner Yuma County Public Health Services District (YCPHSD), child care centers have become more interested in receiving trainings or information about asthma. When centers participating with the NAP SACC request more information on asthma, YCPHSD refers the agency to CSF to set up a basic presentation for their staff.

Testimonial of Need

After visiting 2 centers several times and receiving answers like “wait until next month when work slows down” (summer), and the following month, “wait until all employees come back from vacations”, I was told that they were not interested in receiving asthma preventive education. A lady mentioned that they were not interested because asthma was not a problem at their center and it was not required for their jobs. At that time I felt very frustrated, but this incident made me realize that more education is needed not only at the community level, but also at the childcare provider level. My next step will be to contact the manager of these two centers personally.

-Promotora from CSF

Participation

Over time, CSF was able to reach more centers, as awareness was raised about asthma. Scheduling can be complicated, but more centers are now interested in receiving information about asthma, and how to reduce triggers in the child care setting. Presentations are given in English or to Spanish-speaking home based providers, depending on the needs of the child care staff. In 3 years promotoras and health educators gave presentations across 4 Yuma County areas and communities:

- 27 presentations
- Over 424 child care staff
- 10 Yuma centers, 6 San Luis, 3 Somerton, 1 Wellton

Open Airways for Schools

Core Performance Measures: I-6.1, Suppl. O-1

DOMAIN

Patient

HEALTH FOCUS

Asthma

OBJECTIVE

Reduce frequency and severity of asthmatic episodes through increased decision-making skills, self-management practices and appropriate use of asthma medication.

METHODOLOGY

The Open Airways for Schools (OAS) materials include a self-administered pre/post questionnaire addressing self-management skills, and attitudes. The instrument is available in English or Spanish.

Hypothesis testing on all responses was conducted using the Wilcoxon sign-rank test. The overall level of statistical significance was adjusted (Sidak corrected alpha = 0.004) to account for multiple comparisons.

MEASURES/DATA SOURCES

1. Participation
2. Pre/post questionnaire

PARTNERS

Yuma County Cooperative Extension Yuma County Asthma Special Action Group (SAG)

Open Airways for Schools (OAS) is an award winning program from the American Lung Association that teaches children ages 8-11 how to detect the warning signs of asthma, including the environmental factors that can trigger an attack. The program informs students of the actions they must take to help prevent an asthma attack and empowers them to better manage their asthma with the assistance of parents, teachers, school nurse, and physicians. The program consists of six 40-minute lessons and is taught by trained volunteers. The interactive approach utilizes group discussion, stories, games, and role-play to promote children's active involvement in the learning process. Studies have shown that children who participate in OAS have fewer and less severe asthma attacks, improve their academic performance, have more confidences in their ability to take steps to manage their asthma, and exert greater influence on their parents' asthma management decisions. The American Lung Association (ALA) believes that OAS can help mobilize community response to the needs of children with asthma— in particular, disadvantaged, minority children whose asthma often goes undetected or under-treated.

Through the Steps Initiative, the Yuma County Cooperative Extension lead the creation of a first-ever asthma policy coalition, the Yuma Asthma Special Action Group (SAG). Within the first year of Steps, the coalition prioritized getting OAS back into Yuma elementary schools. The program had been eliminated as schools are under great pressure to meet State academic standards and prepare for testing. The Asthma SAG contacted several school districts, made presentations at 3 school board meetings, and 2 principal meetings to get OAS back in schools. Steps also sponsored 3 local ALA / OAS trainings for 45 people, including Steps staff, promotoras, school nurses, and public health nurses. The program is delivered after school.

The Asthma SAG and Cooperative Extension are committed to sustaining OAS once Steps program ends. The Cooperative Extension plans to continue as a key contact for schools, and maintain OAS materials, and to schedule volunteers to implement the program when schools call for services. The Asthma SAG will continue to identify committed volunteers to offer the classes, and promote the program at schools through newsletters and community outreach.

For more information about OAS visit: www.lungusa.org

Open Airways for Schools

Yuma Asthma Special Action Group (SAG)
Yuma County Cooperative Extension

Participation: 2005-2008

- 9 schools participated, from 3 communities; some schools participated more than once with new and same children.
- 106 students participated.
- 80 pre/post surveys were analyzed.

Pre/post Outcomes:

Students reported a statistically significant improvement in...

- knowing how much medicine to take.
- ability to identify triggers in the home.

Open Airways for Schools Participation 2005-2008			
Yuma			
Gary Knox	7	McGraw	6
Desert View Academy	44	Desert Mesa	17
OC Johnson	7	Gwyneth Ham	7
San Luis		Wellton	
Cesar Chavez	11	Wellton	4
Arizona Desert	3		

Self Management & Medications Open Airways for Schools 2005—2008 (N=80)				
Can you....	Post Results			% students positive change
	No	Maybe	Yes	
tell when to take your medicine?	2%	10%	88%	18%
tell how much medicine to take when starting to wheeze or cough?	2%	20%	78%	38%*
*Wilcoxon sign-rank test (p<0.0001)				

Self Awareness & Triggers Open Airways for Schools 2005—2008 (N=73)				
Can you....	Post Results			% students positive change
	No	Maybe	Yes	
tell ahead of time when you are going to wheeze or cough?	17%	27%	56%	38%
tell what things make you wheeze or cough at home?	1%	22%	77%	33%*
tell what things make you wheeze or cough at school?	11%	22%	67%	34%
*Wilcoxon sign-rank test (p=0.001)				

Open Airways for Schools

Yuma Asthma Special Action Group (SAG)
Yuma County Cooperative Extension

Students reported a statistically significant improvement in their ability to...

- remember what to do during an asthma attack, and to being able to stay calm.
- talk to a teacher about asthma.
- decide if he/she should go to the doctor or hospital.

During An Asthma Attack Open Airways for Schools 2005—2008 (N=80)				
Can you....	Post Results			% students positive change
	No	Maybe	Yes	
remember what to do when you start to wheeze or cough?	1%	14%	85%	26%*
relax and stay calm every time you start to wheeze or cough?	9%	23%	68%	38%*
*Wilcoxon sign-rank test (p<0.002)				

Communication Skills Open Airways for Schools 2005—2008 (N=80)				
Can you....	Post Results			% students positive change
	No	Maybe	Yes	
tell an adult when you start to wheeze or cough?	1%	9%	90%	16%
talk to your teacher about your asthma?	1%	21%	78%	26%*
talk to your teacher about taking things out of the classroom that make you wheeze or cough?	14%	25%	61%	24%
*Wilcoxon sign-rank test (p=0.0005)				

Decision Making Skills Open Airways for Schools 2005—2008 (N=73)				
Can you....	Post Results			% students positive change
	No	Maybe	Yes	
tell if you should go to school when wheezing in the morning?	7%	16%	77%	32%
tell when you should go to the hospital or doctor for help?	8%	19%	73%	36%*
*Wilcoxon sign-rank test (p=0.002)				

Healthy Lifestyles: Health Education for Teens

Core Performance Measure: I-6.1

DOMAIN

Schools

HEALTH FOCUS

Asthma, Diabetes, Obesity

OBJECTIVE

Asthma- Decrease the incidence of asthmatic episodes of students by increasing capacity of school personnel to respond appropriately, and developing school policies and programs that reduce asthma triggers and support self care.

Diabetes- Improve school nutrition, physical activity and diabetes awareness through increased capacity of school personnel, student programs, and development of related policies.

Obesity- Improve school nutrition and physical activity through increased capacity of school personnel, student programs, and the development of related policies.

MEASURES/DATA SOURCES

1. Participation
2. Testimonials

PARTNER

Campeños Sin Fronteras

During the first year of Steps, CSF worked with a health educator, promotoras, and students to develop a community-specific health program for high school students. Research and materials on a variety of health-related topics were drawn from many various evidence-based sources and curricula.

A youth peer volunteer was recruited to work with the CSF staff on the Healthy Lifestyles Program. The volunteer reviewed the curriculum and gave suggestions for tailoring it to appeal to teens in the Yuma area. In addition, this volunteer helped obtain contact information for P.E. and Health Education Teachers at 4 high schools. CSF developed a facilitator's manual, modeled after *Your Heart, Your Life* curriculum from the National Heart, Lung and Blood Institute. The health educator implemented 11 sessions consisting of stress management, body image and eating disorders, physical activity and BMI, tobacco, asthma, nutrition, bone health, and special internet projects and research.

CSF will continue to work with adolescents through a combination of programs including Herramientos por la Vida, a 6 week program for 13 to 17 year olds, and a Johnson and Johnson program for families to prevent chronic disease. They also work with behavioral health agencies to address peer pressure and self esteem through a peer leadership drug and tobacco program. Youth that previously participated in the Healthy Lifestyles program are now peer leaders, assisting with recruitment and outreach for health programs.

Academic Credit For Steps Health Education Program

In an agreement between CSF and a principal at a local charter school that primarily serves youth from migrant farm worker families and other students with special needs, students received a .25 credit for participating in the Healthy Lifestyles program. Previously students studied a health curriculum text book independently without an instructor and took tests from the text-book. Many students who took the Healthy Lifestyles course also signed up for the CSF Not on Tobacco (NOT) course, for which they also received credit. The NOT program was also supported through Steps. After working with the CSF health educator, and using the Healthy Lifestyles curriculum, many students passed their health education exams for the first time!

Healthy Lifestyles: Health Education for Teens

Campeños Sin Fronteras

Participation: 2005 - 2007

In 2004, the curriculum was developed and piloted at an alternative high school. In 2005 the program began at a local charter school that serves many Hispanic students who are from migrant farm worker families. Some students also work, or have families of their own, which is why it is important to offer the course during the school day and not before or after school.

The program was offered 11 times, consisting of 8-11 classes. Over 143 youth participated. About 50% were male and 50% female; 54% of the students/youth completed at least 80% of the sessions offered.

In 2006, CSF offered the program over the summer at a local church. This course was irregular because kids as young as 11 participated, and because of the time of the year many kids were unable to complete the course but they participated in as many classes as possible. Excluding this group, 80% completion rates increase to 63%. In addition, allowing for one extra absence the 70% completion rate is 86%. This is relevant because most students do take most of the classes. Very few only take 1 or 2 classes.

Participation: <i>Healthy Lifestyles</i> Health Education for Teens Steps 2004-2007					
	2005	2006	2007	Total	Without Summer Class
# Courses Completed	3	4	4	11	10
# Students	31	64	48	143	114
Students Completing 70% of Classes	26	41	41	108 (76%)	98 (86%)
Students Completing 80% of Classes	26	30	21	77 (54%)	72 (63%)
10 session course: 80% completion = 8+ classes / 70% completion = 7 classes 8 session course: 80% completion = 7+ classes / 70% completion = 6 classes					

Comments from *Healthy Lifestyles* Instructors:

“They really liked the fact that the classes were bilingual and that they could express themselves in Spanish as well.”

“Two of my morning students shared with me that before they had the *Healthy Lifestyles* classes they did not care about nutrition or doing physical activity, because they thought it was not important. Now with the classes they have learned the importance and the benefits of having an active and healthier life. They have both enrolled themselves in the youth soccer team in San Luis Arizona.”

DOMAIN

School

HEALTH FOCUS

Asthma

OBJECTIVE

Decrease the incidence of asthmatic episodes of students by increasing capacity of school personnel to respond appropriately, and developing school policies and programs that reduce asthma triggers and support self care.

METHODOLOGY

The objective of the NOT on Tobacco program is to help teens quit smoking. The curriculum includes self-administered evaluation component. A pre-program questionnaire includes demographics, smoking history, attitudes and behavior, and smoking environment. The post-program questionnaire addresses smoking status, and feedback about the program.

MEASURES/DATA SOURCES

1. Participation
2. Demographics
3. Pre/post questionnaire
4. Testimonials

Not on Tobacco: Smoking Cessation Program For Teens

Core Performance Measures: I-6.1, O-5.2, O-5.4

Not On Tobacco (NOT) was developed by the American Lung Association and researchers at West Virginia University to help young smokers stop smoking or reduce the number of cigarettes they smoke. The program consists of 10 interactive and fun sessions in which teenagers learn about nicotine withdrawals, how to manage people or things that trigger them to smoke and how to deal with friends and family who smoke. There are 4 booster sessions to reinforce what the group learns and give extra support.*

NOT uses a life management skills approach to teach young people how to reduce stress, make healthier decisions, eat better, exercise, and communicate more effectively with family and friends. N-O-T helps teens quit smoking by:

- Identifying the reasons why they smoke
- Understanding the immediate benefits of quitting
- Pinpointing social influences that affect smoking behavior
- Combating social pressure from friends and family who smoke
- Setting realistic and attainable goals for change
- Developing life management skills that go beyond giving up smoking

In 2005, the program was implemented at a charter high school in San Luis, Arizona, where most the students have special life circumstances. Many have parents or family members who are migrant farm workers, and others have jobs and families of their own. Classes were offered during the school hours to ensure participation, and students received academic credit. Many of the students were not current smokers but had an interest in the topic and/or had family members or friends who smoke. Consequently, the program was adapted as a tobacco education and prevention in addition to the cessation component. Likewise, the evaluation of this program does not indicate a high quit rate, because of the number of students who were not smokers.

CSF is now conducting a community-wide projects addressing behavioral health, drugs and tobacco, in collaboration with the "Futuro Claro" program, funded by the American Legacy Foundation, and the state funded "Tobacco Education Program." The program trains youth to become peer mentors in tobacco prevention and cessation. Many of the former NOT participants have become peer leaders for this program.

*For more information see: http://www.nhlung.org/teens_NOT.cfm

Not On Tobacco (NOT)

Campeños Sin Fronteras

Participation: 2006-2007

- 3 courses were completed at schools in Somerton and San Luis, Arizona.
- 42 students participated.
- 30 students completed the program.

Student Characteristics

- 95% of the students were Hispanic.
- Approximately the same number of boys and girls participated.
- Age range was 14-19 years old; most students were 17 (41%).
- Most students were in the 10th (31%) and 11th (31%) grades.

Smoking Habits at Beginning of Program (n=41)

- Average time students had been smoking was 1-1/2 years.
- Average age students first tried smoking cigarettes is 12 years old.
- 23 (56%) of the students smoked on 1 or more days in the last month.
- 11 (27%) of the students smoked on 20 or more days in the last month.
- Students smoked an average of 3 cigarettes on a typical week day.
- Students smoked an average of 6 cigarettes on a typical weekend- day.

History of Quit Attempts (n=18)

- 18 (47%) students tried to quit smoking before:
 - 1-2 times: 9 (56%)
 - 3-4 times: 3 (19%)
 - 5 or more times: 4 (25%)
- The longest time a student was smoke free during a quit attempt:
 - less than 1 week: 3 (17%)
 - 1 month or less: 10 (56%)
 - 1-6 months: 1 (6%)
 - more than 6 months: 4 (22%)
- Methods to quit:
 - Nicotine replacement therapy: 1 (6%)
 - Alone: 11 (61%)
 - In a group: 1 (6%)
 - Health provider: 1 (6%)
 - Other: 4 (22%)

Social Relations and Smoking

Relations Who Smoke (n=41)	
Parent or Guardian	17 (41%)
Sibling	19 (46%)
Close Friend	37 (90%)

Not On Tobacco (NOT)

Campeños Sin Fronteras

Attitudes Toward Smoking Cessation at the Beginning of the Program

Motivation to Quit Smoking (n=27)	
None	7%
Low or Medium	37%
High or Very High	56%
Confidence in Quitting (n=39)	
None	7%
Low or Medium	34%
High or Very High	60%

Plans to Quit Smoking (n=27)	
No plan to quit in next 6 months	7%
In the next 6 months	26%
In the next 30 days	41%
Previous Attempts to Quit (n=27)	
Serious attempt in last 6 months	11%
Quit less than 6 months ago	15%

Smoking at End of Program (n=23)

- 7 (30%) students said they smoked at the end of the program.
- On a typical week day students smoked 0-6 cigarettes; the average # of cigarettes was 2.
- On a typical weekend-day students smoked 0-20 cigarettes:
 - 3 smoked 2-4 cigarettes
 - 2 smoked 16 cigarettes
 - 2 smoked 20 cigarettes (1 pack)
- 6 students planned to quit in the next 6 months, and 1 student planned to quit in the next 30 days.

Not On Tobacco (NOT)

Campeños Sin Fronteras

Students' Opinions of Program

- Of 12 students 75% said the program was “very” or “extremely” important in helping them quit smoking.

What did you like the **Best** about the Program?

“It made me think about the harm it can do to me”
 “That we had a lot of fun”
 “That it’s dynamic and I can share my opinions and experiences”
 “It helped me out”
 “Not smoking”
 “The teacher is cool”
 “The information they give you”
 “It’s interesting, and it’s helping me quit”
 “It helped me learn the future problems it can bring”

What did you like the **Least** about the Program?

“I want the session to be longer”
 “Not enough time”
 “That sometimes it made me feel guilty”
 “The reading”

Students' Opinions about Facilitation

- The most important characteristic of a NOT facilitator is to be trustworthy and have prepared for each session.
- 62% of the students stated it is very or extremely important that the facilitator be a non-smoker; being an ex-smoker was not an important factor.
- Not nagging or preaching was not an important factor, but being non-judgmental was.

Characteristics of a NOT Facilitator Rated “Very” and “Extremely” Important (N=13)	
Trustworthy	85%
Prepared for Sessions	75%
Kept Group Information Confidential	69%
Non-smoker	62%
Non-judgmental	62%
Cares about Students	62%
Ex-smoker	33%
No nagging / preaching	26%

Not On Tobacco (NOT)

Campeños Sin Fronteras

Students' Opinions of Program

Topics

- Topics that addressed the **physiological aspects of smoking** were rated by students as **more useful** compared to skill building topics such as positive self talk or stress management.

Topics Rated as "Very" or "Extremely" Helpful (N=13)	
Facts about smoking	92%
Nicotine and what it does to your body	85%
Triggers for smoking	85%
Withdrawal symptoms / signs of healing	85%
Getting support	77%
Positive self talk	77%
Rewarding yourself	69%
Dealing with family / friends pressure	69%
Stress management	69%
Reasons why teens have trouble quitting	62%
Dealing with cravings	62%
Healthy food choices	54%

Activities

- The **most helpful activities** were deep breathing, and participant / facilitator commitment contracts.
- The **least helpful activities** were the pack tracks and journaling.

Activities Rated as "Very" and "Extremely Helpful" (N=13)	
Deep breathing	78%
Participant / facilitator commitment contracts	67%
Group exercise chart	54%
Progressive muscle relaxation method	54%
Pack tracks	54%
Journaling	26%

Not On Tobacco (NOT)

Campeños Sin Fronteras

More Student Opinions

“In what areas of your life was this program helpful?” (other than stopping or reducing smoking)

Feel better about myself	77%
Deal better with stress	77%
Deal better with family and friends	77%
Exercise more	62%
Eat better	54%
Go to school more often	31%
Get better grades	23%
Make new friends	23%

Facilitator’s Story

“During the NOT program 2 students disclosed to me that they were pregnant. Both of them were currently smoking and in the process of trying to quit. They told me they were happy to be part of the program and they felt it was the right moment to receive the information and do something about their habit.

I soon realized they need more help than just the program on tobacco. Both girls needed medical insurance and some type of guidance as to the next steps in taking care of themselves and the pregnancy. I helped them apply for AHCCCS / KidsCare and referred them to a local clinic that could provide them with free check ups and prenatal care.

One girl missed the last 2 classes because she was on bed rest, and the other missed the last class for a doctor’s appointment. It was also the last week of school. Due to school confidentiality policies I was unable to follow up with them or obtain information on their well being. I am waiting for the next semester and hopefully they will return to continue school as they said they planned.”

More Comments

“On the last day of class a female participant shared with the group the following: *I can say that I got 2 good things from this high school. A diploma, and I learned some tools to stop smoking...which will be beneficial for the rest of my life..*

It was good to hear that she was excited and happy with the change to stop smoking despite her personal obstacles... her whole family smokes, and she works in the fields where the majority of the people smoke, and she has been smoking since she was 14 years old. She was determined to stop smoking and have a healthier lifestyle.”

Worksite Walking Program

Walk Across Arizona

Core Performance Measures: I-6

DOMAIN

Worksite

HEALTH FOCUS

Obesity

OBJECTIVE

Increase worksite awareness of the benefits of nutrition and physical activity, and availability of healthy foods and physical activity opportunities in the workplace.

METHODOLOGY

Data for Walk Across Arizona are collected by the UA Pima County Cooperative extension. Teams enter their walking miles on-line, which are totaled by rounds of 8 weeks, over the 16 week program. Demographic information is collected, in addition to self-report physical activity status, post program. Process information is also collected. A report is created by the Pima County Extension and shared with the Steps Evaluation Team.

MEASURES/DATA SOURCES

1. Participation
2. Miles walked
3. Testimonials
4. Summary report

PARTNER

U of A Yuma County Cooperative Extension

The Walk Across Arizona campaign is a program designed to encourage individuals and families to increase their participation in activities that promote a healthy lifestyle. The ultimate goal is to increase satisfaction with the community and decrease social isolation of residents within the communities. This program was initiated through the Community Health Advancement Partnership (CHAPS), a partnership initiated in 1997 between the University of Arizona Zuckerman College of Public Health and the Cooperative Extension and Department of Nutritional Sciences in the College of Agriculture and Life Sciences. The program is based on similar walking programs in other regions of the country. The basis of the program is to use social support networks to increase physical activity levels within the community by developing and maintaining walking clubs. For more information visit: <http://cals.arizona.edu/walkacrossaz>

Walk Across America is a 16-week walking program designed for teams of up to 10 people. In 2004, Yuma County Cooperative Extension recruited worksite teams to participate in the Walk Across Arizona program. Participants report their miles to their team captain, and mileage is recorded on-line. Currently employees from the Cooperative Extension and neighboring Yuma County Public Health Services District continue to participate in WAAZ as part of their workplace wellness activities.

Testimonials from WAAZ Coordinator:

“Participants report taking walks during lunch or breaks. Some became more aware of their own lack of physical activity and were motivated to do at least 30 minutes 3-4 days a week. One member won a free month to the YMCA. She was hesitant in joining but the incentive motivated her to try it out!”

Walk Across AZ Newsletters

The Cooperative Extension sent out regular newsletters which included:

- reminders for members and captains
- updates on miles walked using a map of the state of Arizona
- health tips for increasing physical activity and good nutrition
- opportunities for prizes, and mention of collaborating donors
- midpoint and final winners

Walk Across Arizona

U of A Yuma County Cooperative Extension

Participation & Walking Summary: 2005-2008

21 worksites participated, making 36 different teams; the UA Coop Ext. and YCPHSD participated multiple years, and continue to date.

Participants were in their 30s-60s. Women tended to participate more than men.

Only miles turned in by teams are represented in chart.

Walk Across Arizona				
	2005	2006	2007	2008
# Worksites	12	3	2	5
# Teams	20	8	3	5
# Participants (%female/%male)	171 (86% / 14%)	66 (73% / 27%)	29 (76% / 24%)	37 (98% / 2%)
Average Age	44	41	37	50
Total Miles (16wks)	30,537	10,499	4,094	5,077
Average Miles/Wk	1909	656	Not reported	Not reported



Cooperative Extension employees receive certificates for their participation in WAAZ

Testimonial from a Team Captain:

"I actually have been in the hospital since Friday and got out yesterday. When I came over to pick up those goodies with the Heart Health information, I never thought they would come in handy that soon but Thursday afternoon I went out for a quick walk and ended up short of breath, and came home and looked at that brochure and had all the symptoms. I called the doctor and he hospitalized me with pulmonary emboli (blood clots in my lungs) that were causing strain on my heart. They don't think that I have any permanent damage to the heart but we'll check that out next month after the clots get all taken care of. I told him I called because of what I read on that little card. I put mine to good use! "

Participating Worksites

2005

Campeños Sin Fronteras
 Chicanos Por La Causa (5 teams)
 FCE
 Gowan Company (2 teams)
 Housing America
 Regional Center for Border Health
 Somerton Senior Center
 Sunset Clinic
 Western AZ Council of Governments
 UA Cooperative Extension
 YCPHSD (2 teams)
 Yuma Private Industry Council

2006

AZ Department of Corrections (3 teams)
 Valle del Encanto Childcare (3 teams)
 UA Cooperative Extension (2 teams)

2007

UA Cooperative Extension (2 teams)
 YCPHSD

2008

Dragon Tails
 Street Walkers
 Dateland School
 Yuma School District One: Child Nutrition
 Gadsden School District: Cafeteria Mngrs.

Diabetes Quality of Care

Core Performance Measures: I-6.1, O-2.2, O-2.3, O-2.4, O-3.1

DOMAIN

Provider

HEALTH FOCUS

Diabetes

OBJECTIVE

Increase capacity of providers to screen, diagnose, treat and refer patients with diabetes.

METHODOLOGY

The assessment of quality of care is in itself an evaluation activity. Key to the evaluation process is the identification of standards of care. Approximately 12-15 charts are audited to be representative of provider care. For a chart to be eligible for review, a patient has to have been diagnosed with diabetes and have seen his/her primary provider at least once during the 12 months under review. Evidence from prior studies indicates that that reviewing 12 or more randomly selected charts provides a stable estimate of performance while imposing the lowest possible burden on office staff. Audit results are compiled for for the clinic. Developed strategies for closing gaps in care and the level of implementation are documented. Results of the second audit are compared to the baseline.

MEASURES/DATA SOURCES

1. Identification of indicators
2. Record review at baseline
3. Identification and implementation of strategies
4. Record review follow up

PARTNER

Regional Center for Border Health, Inc.

The main goal of the Diabetes Quality of Care Initiative is to increase the proportion of adults with diabetes who receive at least two HbA1C measures per year, a dilated retinal exam, a foot exam, and a dental exam per year. Objectives include: improving the quality of care provided by medical professionals; working with medical providers regarding the standards for preventive health care practices; increasing the likelihood that physicians develop treatment plans for diagnosed patients and follow accepted standards of care; and ensuring adequate provider education, including strategies to implement national guidelines of quality of care.

Providers participate in a process of improving the quality of care in their practice by identifying desired health care standards (i.e. annual HbA1C, annual eye exam), conducting record reviews of a representative sample of patient records for the past year, and determining what percentage of patients are meeting those standards. Providers then identify and implement strategies to close gaps in care. Process evaluation determines how well new strategies are being implemented. A second record review measures improvements in patient care resulting from these strategies. Key to this intervention is the involvement and buy-in of the providers in assessing gaps and instituting changes.



Reviewing Patient Charts

As a strategy to increase quality of care, RCBH staff reviewed over 5000 charts to flag diabetes patients and include an indicators tracking form.

Diabetes Quality of Care

Regional Center for Border Health, Inc.

2004: Diabetes Quality of Care at One Physician's Office in the City of Yuma

- 28 records were reviewed at a previously contracted physician's office in Yuma (10% of all diabetic patients).
- Indicators met were as follows:
 - ⇒ Annual HbA1C 98%
 - ⇒ Total cholesterol 86%
 - ⇒ Urine microalbumin 79%
 - ⇒ Annual foot exam 5%
 - ⇒ Annual vision exam 0%
- The following gaps were identified:
 - ⇒ Need to increase percentage of dilated eye exams among diabetics
 - ⇒ Need to increase percentage of referrals to dental care
 - ⇒ Need to increase percentage of patients receiving annual foot exam
- The physician's office continued to perform quality of care reviews on their own.

2005: Strategies Identified and Implemented in South Yuma County

- RCBH conducted the Quality of Care at one of its own clinics in South Yuma County.
- Over 5000 charts were reviewed and 37 diabetes patient charts were flagged.
- A new medical form with indicators was added to the chart of each diabetic patient.
- A nurse practitioner, staff, medical assistants were trained on indicators.
- Patient visits after foot and eye exam referrals are now documented through inter-office communication and follow up.



A medical assistant is trained on flagging diabetes charts and diabetes quality of care indicators.

- RCBH received 3 grants to provide retinopathy exams. RCBH communicated with Arizona Health Care Cost Containment System (AHCCCS) to explore possibilities of optometrist reimbursement for preventive services. RCBH applied for a mini-grant through the ADHS Office of Oral Health that would allow them to form a Oral Task Force to enhance access to dental care for diabetics in South Yuma County. The vision coalition held a Vision Health Fair for diabetics. Ophthalmologists volunteered at the Nuestros Niños Campaign and provided free eye exams to the Quality of Care patients who had not had an exam in the past year

Vision Coalition

San Luis Walk In Clinic
Yuma Vision Center
Barnet Bulaney Perkins Eye Center

Grant Funders

AZ Optometry Association
AZ Optometry Foundation
Healthy People– Healthy Vision

Diabetes Quality of Care

Regional Center for Border Health, Inc.

2006: Strategies Identified and Implemented in South Yuma County

- RCBH began the Quality of Care program at a second clinic in South Yuma County.
- The Nutrition and Wellness Institute at RCBH now provides education on diabetes control and prevention, diabetes support groups, cooking and nutrition classes, and walking clubs. The institute is coordinated by a registered dietician, a program coordinator, and a case manager who review patients charts and assure compliance with follow up appointments for foot and eye exams.
- An optometrist and ophthalmologist recently opened practices in the area, and the clinic schedules referral appointments with their practices.
- Medical assistants at the clinic are trained on the monofilament foot exams.



In 2006, at a recently opened clinic, the Steps Quality of Care coordinator reviewed all the patient charts to flag diabetes patients' charts. There were 571 charts, and 34 patients had diabetes.

2007: Strategies Identified and Implemented in South Yuma County

- Providers refer patients with new onset diabetes, uncontrolled diabetes, morbid obesity to education and prevention programs at both clinics.
- Patients are scheduled to attend visits with the registered dietician for one-on-one and group counseling. At the end of the year, 28 out of 53 referred patients showed up to nutritional counseling appointments.
- The clinics are introducing the Continuity of Care Record (CCR), an electronic record system to track diagnosis, laboratory data, medications, patient history, allergies, patient demographics and insurance information. This system will serve as the new Quality of Care tracking system sustaining efforts to date.

Diabetes Quality of Care

Regional Center for Border Health, Inc.

Diabetes Quality of Care at Regional Center for Border Health, Inc. Walk-In Clinics

One challenge to tracking quality of care is that some patients are walk-in patients who come in for urgent care, but who have a primary care physician elsewhere.

Clinic #1

The patient base at Clinic #1 continues to grow. As of 2008 there are approximately 11,300 patients and approximately 60 have diabetes. The indicators being met indicators have increased since the beginning of the program, especially cholesterol checks, and foot and eye referrals.

Diabetes Quality of Care % Indicators Met for Diabetes Patients Clinic #1				
	2005 (N=29)	2006 (N=27)	2007a (N=13)	2007b (N=14)
Annual HbA1C	61%	92%	69%	86%
Total cholesterol	100%	74%	69%	100%
Triglycerides	100%	70%	69%	100%
Urine microalbumin	79%	63%	38%	50%
Annual Foot Exam	29%	67%	92%	50%
Annual Vision Exam	24%	59%	85%	49%

Clinic #2

The patient base at Clinic #2 continues to grow. As of 2008 there are approximately 3,000 patients and approximately 34 have diabetes. Overall, quality of care indicators that have been met have increased since 2006 baseline to 2007. In particular referrals for foot and eye exams increased as well as cholesterol checks and urine microalbumin tests.

Diabetes Quality of Care % Indicators Met for Diabetes Patients Clinic #2		
	2006 (N=19)	2007 (N=9)
Annual HbA1C	84%	78%
Total cholesterol	74%	78%
Triglycerides	74%	88%
Urine microalbumin	16%	33%
Annual Foot Exam	26%	33%
Annual Vision Exam	16%	22%

South Yuma County Special Action Group

DOMAIN

Policy, Environment

HEALTH FOCUS

Diabetes, Obesity

OBJECTIVES

Diabetes: Develop and implement policies that support self-management behaviors across multiple domains.

Obesity: Develop and implement policies that will increase opportunities for improved nutrition and physical activity.

METHODOLOGY

Membership and collaboration were assessed using attendance lists, a member survey, and a collaboration survey which are administered once a year. Policy priorities were assessed through the member survey, and action plans. Programs and activities implemented through the SAG to achieve policy goals are documented in meeting minutes, and through an end of year critical reflection discussion.

MEASURES/DATA SOURCES

1. Participation
2. Collaboration survey
3. Member survey
4. Meeting minutes
5. Action plan
6. Critical reflection process

PARTNERS

**UA Yuma County Cooperative Extension
Various SAG partners**

Recognition of the extent to which individual health-related behavior is shaped by social and cultural norms and by the physical environment of a community has brought increasing attention to systems and environmental factors that contribute to health related behaviors. The Special Action Group is a community-based coalition focused on creating policy change that directly impacts the prevention and control of diabetes, asthma and/or obesity. The SAG may include representatives from government, health and human services, schools, media, business, faith-based organizations, law enforcement, and concerned citizens. Core membership consists of local community members, however as the meetings are open forums, they are attended by guests throughout the region.

SAGs were first developed in 1999 in Yuma and Santa Cruz Counties to address diabetes prevention and control through the Border Health Strategic Initiative. The SAGs moved through several stages of development, beginning with basic education about the risk factors for diabetes. The second stage focused on the distinctions between programs and policies. For many SAG members, planning and implementing policy change was a new experience. The third stage involved an inventory and review of relevant conditions and policies that currently existed in the community. On the basis of the inventory, each SAG identified and prioritized policies and developed action plans. Policy-related achievements of the SAGs to date include raising awareness about chronic disease and behavioral risk factors, involvement in city planning processes to increase open spaces, and increased resources to the communities to build infrastructure for recreational activities.

Throughout the Steps initiative the South SAG focused on school health and preventing childhood obesity. These efforts included working with parents on school health advocacy. In 2007 the Yuma County Public Health Services District took the facilitation and logistical lead for the South SAG. Meetings continue to be held in South County, in the communities of San Luis and Somerton. The group is committed to the process and discovering methods to sustain the partnership.

South Yuma Special Action Group

UA Yuma County Cooperative Extension
Various SAG members

Membership and Collaboration: 2004-2008

The South County Special Action Group began during the Border Health Strategic Initiative and was sustained for 5 years through the Steps initiative. During Steps, the South SAG generally met 6 times a year, and average annual participation ranged from 11-21 attendees per meeting. A 2007 survey of 16 members indicated that 87% of the South SAG members are female and 88% are Hispanic/Latino. Participating organizations serve all ages of the community and primarily work with lower and middle income individuals and families. 100% of the SAG members state that their organization is supportive of participation in the SAG.

Below is a list of past and current South SAG partners:

Local Organizations

Bajo El Sol Newspaper
Campesinos Sin Fronteras
City of Somerton
Cocopah Tribal Council
Comite de Bien Estar Inc.
Gadsden Community Development Board
Gadsden Elementary School District
Gowan Company
Interfaith
Legal Aid
Mexican Consulate
Regional Center for Border Health
San Luis Library
San Luis Police Department
Somerton Library
Somerton Parks and Recreation
Somerton School District #11
Southwest Diabetes Education Center
University of Arizona Cooperative Extension
Yuma Regional Medical Center, Diabetes Education
Yuma Community Foundation
Yuma County Department of Development Services (YCPHSD)

- Nursing
- Nutrition
- Tobacco

Yuma County Public Works
Yuma High School District

Regional / State Partners

Arizona Department of Health Services
U of A Zukerman College of Public Health

South Yuma Special Action Group

UA Yuma County Cooperative Extension
Various SAG members

Member and Collaboration Surveys

The Wilder Inventory

The Wilder Inventory consists of 40 questions that are designed to measure factors that have been identified through research as related to collaboration. The factors are grouped into six categories that seek to explain the success of a collaborative group. These are:

- | | |
|-------------------------------|------------------|
| 1) Environment | 4) Communication |
| 2) Membership Characteristics | 5) Purpose |
| 3) Process and Structure | 6) Resources |

Scoring is based on average group response on a 5 point scale. Scores of 4.0 or higher show a strength and probably don't need attention. Scores 3.0—3.9 are borderline and should be discussed by the group to see if they deserve attention, and scores of 2.9 or lower reveal a concern and should be addressed.

SAG members also answer a **member questionnaire** which captures demographics and open ended responses about the collaboration or policy priorities.

Members of the South SAG have completed the Wilder Inventory 5 times since the coalition was formed. During the Steps initiative, the survey was completed 3 times. Overall, during the course of the Steps initiative, average scores for each category were similar.

In 2007 South SAG members gave the **highest** scores to questions addressing: 1) mutual respect, 2) common desire to succeed, 3) belief that the group can survive despite unexpected challenges, 4) a belief in the uniqueness of the groups goals, and 5) that the leadership is skilled in working with people and organizations.

In general, over the years the **lowest** scores addressed a lack of funds to achieve all goals.

FACTORS THAT MAKE STEPS-SAG COLLABORATION WORK*	2002 BHSI (n=27)	2003 BHSI (n=27)	2004 Steps (n=15)	2005 Steps (n=18)	2007 Steps (n=16)
Scale: 1- 5 (weakness-strength)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Environment (6 questions)	3.7	4.0 (.44)	4.1 (.60)	4.0 (.38)	4.0 (.61)
Membership Characteristics (6 questions)	3.9	4.1 (.34)	3.9 (.66)	4.1 (.44)	4.1 (.89)
Process & Structure (13 questions)	4.0	4.3 (.40)	4.1 (.55)	4.2 (.37)	4.1 (.67)
Communication (5 questions)	4.1	4.3 (.53)	4.0 (.53)	4.3 (.43)	4.0 (.65)
Purpose (7 questions)	4.3	4.4 (.47)	4.3 (.52)	4.2 (.51)	4.1 (.71)
Resources (3 questions)	3.9	4.1 (.53)	3.7 (.77)	3.8 (.55)	3.6 (1.17)

*Wilder Collaboration Factors Inventory

South Yuma Special Action Group

Yuma County Cooperative Extension
Various SAG members

Policy Priorities:

Action Plan 2005 –2007

Goal: Increase physical activity and good nutrition in schools through the empowerment* of parent groups to advocate for such changes in South Yuma County schools.

**Empowerment includes leadership seminars for parents to learn how to approach school boards and school system to change policy, physical activity and nutrition education.*

Action Steps and Activities:

1. Provide leadership seminars and physical activity and nutrition education to parent groups in South Yuma County.
2. Recruit parents to participate from the following venues:

Worksites	Adult Literacy Programs
Clinics and physician offices	Head Start Programs
Apartment complexes	Daycare Centers
Unemployment offices	PTO's PTA's
WIC	Sports Leagues

3. Seminars to begin Fall 2005

Action Plan for 2008

Goal: Increase access to nutrition services to reduce risk of obesity and diabetes in South Yuma County through physician and community awareness of available services and programs.

Action Steps and Activities:

1. Provide nutrition and health information articles for Bajo del Sol Health Column. Health column will be called "Steps to Health." Contact information of the Steps partner featured in column will be listed. The Health Column will be promoted through a community forum hosted by local parent group. Column will also be promoted through Parent Teacher Organization (PTO).
2. Develop a listing of health and nutrition services in South Yuma County. Distribute through utility bills.
3. Seek listing in "Connections" published by the hospital for providers.

South Yuma Special Action Group

Yuma County Cooperative Extension
Various SAG members

Critical Reflection on Progress and Policy Changes: 2004-2008

SAG members periodically participated in a guided discussion to reflect critically on their progress. This activity took place in the fall of 2005 and 2006, and a final time in the summer of 2008. The discussion highlights the progress and success of the group as well as how and why the group is successful.

Overall Successes

- **Nutrition Week / Food Showcase-Somerton School District.** Students did a lot of fun activities – 5 a day, healthy bones, salad bar, physical activity. 1800 students were reached. More changes to lunch program came about through the SHI and SAG member is part of school wellness committee.
- **Community forum in Somerton.** It was the first time a health component was added to this traditional block party.
- **Raised awareness for HB 2544.** House Bill passed to regulate school nutrition.
- **1st Children’s Forum.** The Regional Center for Border Health and Steps partners identified issues around children’s health and ways to educate policy makers on the influence of health on academic success.
- **Pathway and Skate board park in Somerton.** SAG members attended meetings on the pathway. SAG members wrote letters for the City of Somerton proposal to get funding for a walking path. Park opened recently. Work began with Border Health SI.
- **School Wellness Policy.** SAG members were involved in the policy committees. The committee still meets and organized an employee Health Risk Appraisal and screenings as part of their School Health Index action plans. Steps partners coordinated the SHI and are facilitating the screenings and health referrals for staff. Steps partners coordinate health career club at local high school to do the SHI.
- **Parent Advocacy Training.** Partnering to develop a series of presentations for parents to inform them how to advocate for health in school.
- **Yuma Parks Development Plan.** SAG members gave feedback and supported parks development plan, and promoted a public forum for community to give input. They also supported a public survey about parks.
- **Partnership with local paper.** The local newspaper, Bajo El Sol, is partnering with the South SAG to publish articles in a new health column. SAG members held a forum / focus group to determine what local families would like published in the paper. Flyers were distributed to promote event and surveys were collected. Approximately 20 parents attended.
- **Parent advocacy groups.** Originally a goal of the South SAG. Funding was obtained through the Robert Wood Johnson Foundation to implement a family/parent intervention to develop leadership/advocacy skills around school health, particularly around physical activity and nutrition.
- **Bike helmet ordinance.** SAG members initiated bike rodeos, gave away helmets, and attended PTA meetings to raise awareness of bike safety and promote physical activity at the beginning of 2008. In the spring a helmet ordinance was passed in San Luis.
- **Safe Routes to Schools collaboration.** Orange Grove Schools is working with Somerton and Yuma city planners and county officials to apply for materials and infrastructure funding through the Safe Routes to Schools program. Partners hope to create a bike and/or walking path near the school.

South Yuma Special Action Group

Yuma County Cooperative Extension
Various SAG members

Critical Reflection on Progress and Policy Changes: 2004-2008

Bringing Awareness to Local Decision-Makers

- **School Superintendents and School Boards.** SAG members sent letters about the parent advocacy program and its purpose. Through the federally mandated school wellness policy, school leadership welcomed the assistance of SAG members to work on school policies. The president of one school board is a SAG member.
- **School Principal Meetings.** NAP SACC facilitator presented to principals meetings at District #1, and Crane School District to raise awareness of the program.
- **Somerton School District Nurses.** The diabetes educator from Yuma Regional Medical Center worked with nurses on nutrition and physical activity issues.
- **Children's Health Forum** – A school board representative and a state legislator attended.
- **County Board of Supervisors (BOS).**
 - **Parks and Recreation-** SAG member from Parks and Recreation met with the BOS several times to inform them about what the public wants in terms of parks and open spaces, and they have adopted the strategic plan. \$50,000 have been allocated to developing a nature preserve area. This is the first time that general funds have been allocated for this purpose.

“When we started with Border Health SI, the County said they were out of the parks business. It is amazing to see how things have changed.”
 - **Nutrition-** A SAG member gave a presentation to the BOS about nutrition services, including Steps programs and the NAP SACC.
- **Community relations at local clinic.** A local clinic recently hired a Steps partner and SAG member as a community relations coordinator. This role is critical to bring awareness to providers about community efforts.

“What helped you succeed?”

“Collaborating across funding streams and pooling resources.”

“Being able to share information, and being updated on the status of things.”

“Team members have a good ability to network and work together as a team. The cohesiveness.”

“Support staff is available for the meetings, resources, and logistical support.”

“Cooperation of the Somerton City Council for the School District Wellness Policy. “

“Cooperation of WACOG Head Start to receive our programs, due to Steps having a good name.”

“When we work with partners in the group, they have always been very cooperative, and keep reminding us about using them as a resource to promote our efforts– the library, newspaper, the community center, the clinic...”

South Yuma Special Action Group

Yuma County Cooperative Extension
Various SAG members

Critical Reflection on Progress and Policy Changes: 2004-2008

Impact on Individual Organizations

- **Local Libraries:** “It helps to spread the word to patients and buy more materials. It’s a great resource for educating clients individually on the events and movement. It helps me provide more information and I can make more referrals to those types of activities like physical activity and nutrition, support groups, walking groups—otherwise I would never have been aware.”
- **Bajo El Sol Newspaper:** “We collaborated on an insert in the newspaper with the paper providing the insert at cost. I also utilize the group as my experts. I look at the SAG list when I need an expert on a health related topic. We’ve gotten different ideas for different stories, different people in the group have provided great articles to print.”
- **School District:** “By networking with the SAG we got the best specialists to create the Wellness Policy.”
- **Regional Center for Border Health / School Health Index:** “It helped get the word out about the SHI orientation. People were calling because SAG members were telling them about it.”
- **Campesinos Sin Fronteras:** “Cross referrals, and also the promotoras get exposed to more trainings that are available through Steps.”
- **Sunset Community Clinic** is now more involved and aware of community events.
- **YMCA** is now a partner with Steps and SAG members.

“What were the challenges?”

“It was a long process with the parent advocacy, the time it takes between meetings to make changes again, and keep the ball rolling. Working with parents to build their skills and be advocates for their children...is a tough project. There are parents who are willing to get more involved, but there are so many steps involved to get to where we want to be.”

“Lack of resources for daycare staff to participate in the NAP SACC, allotting time and pay. It’s also difficult to work with the home based centers. Translating English materials to Spanish. Some things you don’t realize until you’re already doing them; we didn’t realize the travel involved and had not budgeted for it.”

“We are still missing key people at the table. School representatives, church leaders, business people.”

“It is difficult to get elected officials to be members of the SAG.”

“It’s challenging to stay on a policy-focus track.”

“School budget cuts leave less time and resources to work on school health efforts.”

Central Yuma County Special Action Group

DOMAIN

Policy, Environment

HEALTH FOCUS

Diabetes, Obesity

OBJECTIVES

Diabetes: Develop and implement policies that support self-management behaviors across multiple domains.

Obesity: Develop and implement policies that will increase opportunities for improved nutrition and physical activity.

METHODOLOGY

Membership and collaboration were assessed using attendance lists, a member survey, and a collaboration survey which are administered once a year. Policy priorities were assessed through the member survey, and action plans. Programs and activities implemented through the SAG to achieve policy goals are documented in meeting minutes, and through an end of year critical reflection discussion.

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1. Participation
2. Collaboration survey
3. Member survey
4. Meeting minutes
5. Action plan
6. Critical reflection process

PARTNERS

UA Yuma County Cooperative Extension Various SAG partners

Recognition of the extent to which individual health-related behavior is shaped by social and cultural norms and by the physical environment of a community has brought increasing attention to systems and environmental factors that contribute to health related behaviors. The Special Action Group is a community-based coalition focused on creating policy change that directly impacts the prevention and control of diabetes, asthma and/or obesity. The SAG may include representatives from government, health and human services, schools, media, business, faith-based organizations, law enforcement, and concerned citizens. Core membership consists of local community members, however as the meetings are open forums, they are attended by guests throughout the region.

SAGs first formed in 1999 in Yuma and Santa Cruz Counties to address diabetes prevention and control through the Border Health Strategic Initiative (Border Health SI!). The SAGs moved through several stages of development, beginning with basic education about the risk factors for diabetes. The second stage focused on the distinctions between programs and policies. For many SAG members, planning and implementing policy change was a new experience. The third stage involved an inventory and review of relevant conditions and policies that currently existed in the community. On the basis of the inventory, each SAG identified and prioritized policies and developed action plans. Policy-related achievements of the SAGs to date include raising awareness about chronic disease and behavioral risk factors, involvement in city planning processes to increase open spaces, and increased resources to the communities to build infrastructure for recreational activities.

Through the Steps program, the SAG was able to expand to Central Yuma in 2005. The group has focused on policy and environment changes to the Central Yuma area, including a focus on parks and recreation, and convenience store nutrition. The group continues to discuss options for sustainability as the Steps program ends. There are many coalitions and working groups in the area with similar goals and objectives. In 2007 the Yuma County Public Health Services District took the facilitation and logistical lead for the Central SAG, and is committed to the group process and discovering methods to sustain the partnership.

Central Yuma Special Action Group

Yuma County Cooperative Extension
Various SAG members

Membership and Collaboration: 2005-2008

The Central SAG was formed in 2005 and meets 4 to 5 times a year. Average annual attendance has decreased slightly from 22 people to 15 in its first and third years respectively. The number of agencies increased slightly from 21 to 24; however agency representation at meetings has decreased from 86% to 56%. Over the course of the Steps Initiative more than 60 individuals have been included on the membership list. Many individuals and agencies wish to be included as members even if they are unable to attend meetings. Annually, the number of members who actually attended at least one meeting decreased slightly from 43 to 37; however this participation is still relatively high for a coalition.

Below is a list of past and current Central SAG partners:

Local Organizations

Arizona Health Links	Western AZ Council of Governments (WACOG)
Arizona Western College	<ul style="list-style-type: none">• Area on Aging
<ul style="list-style-type: none">• Dept. Physical Education and Wellness	Yuma Community Foundation
Big Brothers Big Sisters of Yuma	Yuma County Public Health Services District (YCPHSD)
Boys and Girls Club	<ul style="list-style-type: none">• Administrative Services• Nutrition / NAPSACC• WIC• Health Promotion
Campeños Sin Fronteras	Yuma County Public Works
Child and Family Resources	Yuma Elementary School District #1
City of Yuma Parks and Recreation	<ul style="list-style-type: none">• Safe Schools Healthy Students• Child Nutrition
Crane School District	Yuma Family YMCA
First Things First	Yuma Regional Medical Center
Get it in Gear	<ul style="list-style-type: none">• Cardiac Unit / YMCA• Diabetes Education• Foundation / ADA
Quechan Casino	
Regional Center for Border Health, Inc.	
Southwest Diabetes Education	
The Sun	
United Way of Yuma	
U of A Cooperative Extension	

Regional / State Partners

Arizona Department of Health Services
U of A Zuckerman College of Public Health

Central Yuma Special Action Group

Yuma County Cooperative Extension
Various SAG members

Member and Collaboration Surveys

The Wilder Inventory

The Wilder Inventory consists of 40 questions that are designed to measure factors that have been identified through research as related to collaboration. The factors are grouped into six categories that seek to explain the success of a collaborative group. These are:

- | | |
|-------------------------------|------------------|
| 1) Environment | 4) Communication |
| 2) Membership Characteristics | 5) Purpose |
| 3) Process and Structure | 6) Resources |

Scoring is based on average group response on a 5 point scale. Scores of 4.0 or higher show a strength and probably don't need attention. Scores 3.0—3.9 are borderline and should be discussed by the group to see if they deserve attention, and scores of 2.9 or lower reveal a concern and should be addressed.

SAG members also answer a **member questionnaire** which captures demographics and open ended responses about the collaboration or policy priorities.

Central Yuma SAG members completed the survey in January of 2006, approximately one year after the group formed. They completed the survey again in October of 2007 toward the end of their third year. On a scale of 1-5 members scored themselves from 3.0 - 4.0 in all categories found below; results were similar in both 2006 and 2007. Members scored themselves highest in "Communication" and "Purpose", and lowest in "Resources".

In 2007 SAG members gave the **highest scores** to:

1. skilled leadership
2. recognition that the goals of the group would be difficult to accomplish as an individual organization
3. that his or her organization benefits from being involved in the collaboration

FACTORS THAT MAKE STEPS-SAG COLLABORATION WORK*	2006 Steps-Yr3 (n=20)	2007 Steps-Yr4 (n=12)
Scale: 1- 5 (weakness-strength)	Mean (SD)	Mean (SD)
Environment (6 questions)	3.7 (.45)	3.8 (.71)
Membership Characteristics (6 questions)	3.8 (.41)	3.7 (.86)
Process & Structure (13 questions)	3.7 (.42)	3.8 (.70)
Communication (5 questions)	4.0 (.54)	4.0 (.60)
Purpose (7 questions)	4.0 (.57)	4.0 (.70)
Resources (3 questions)	3.6 (.61)	3.0 (1.2)
*Wilder Collaboration Factors Inventory		

The 3 **lowest scores** related to:

1. insufficient funds
2. insufficient 'people power'
3. need for additional relevant organizations to participate in the collaboration.

Central Yuma Special Action Group

Yuma County Cooperative Extension
Various SAG members

Policy Priorities and Action Plans: 2005— 2008

The Central SAG meets approximately 5 times a year. Members identified top priorities and strategies and formed 3 working groups for: Worksite & School, Marketing, and Open Areas/Parks. Each working group created an action plan and reports to whole group.

Open Areas and Parks

- Development of action plan
- Create vocal public support by encouraging citizens to communicate with elected officials
- Discuss ways public will fund development of parks, open spaces and trails.
- Establish level of services county-wide to identify deficiencies, land availability and facilities needed.
- Identification of County Supervisors and voters as key to policy change
- Consultant to work on county master plan
- Collaboration with South Yuma County
- Public opinion research
- Support for public forums
- County Master Plan to be on ballot by May or November 2006

Marketing

- Development of plan
- Monthly newspaper articles
- Resource manual of local services and programs
- Bajo el Sol newspaper articles and announcements, and TV coverage
- Calendar of events
- School / PTO newsletters

School & Worksite

Goal is to promote physical activity and wellness at schools and worksites. Focus happened in 2 phases:

#1: School Wellness Policies

- Focus on school wellness policy effective 2005/2006
- Provide brochure to schools regarding legislation and No Junk Food Bill
- Train teachers on how to integrate health into other subjects
- Work with Discovery Clubs, PTOs
- Establish walk to work and after school health programs
- Establishment of School recommendations
- Focus on school policy legislation
- Connect with AZ Department of Education

#2: Health Awareness Pilot at YCPHSD

- Pilot Health Awareness Campaign at worksite
- Healthy food choices for meetings
- Intercom messages for physical activity, e.g. reminders to stretch and take short walks
- Bulletin board or newsletter with health messages

Central Yuma Special Action Group

Yuma County Cooperative Extension
Various SAG members

Critical Reflection on Progress and Policy Change: 2005—2008

SAG members participated in a guided discussion to reflect critically on their progress in September of 2006 and again in April of 2008. The discussion highlights the progress and success of the group as well as how and why the group is successful.

Overall Success

Worksite Wellness Committee at the Health District– The committee started after participating with the development of School wellness policies. There was an initial employee health fair and now the committee has invites guest speakers to lunch and learns, a walking group, and wellness newsletters. The County Administration for the department is supportive of a walking environment and having walk breaks.

Parks Plan adopted by the Board of Supervisors - A Parks and Recreation director was hired to create a plan. Three community forums took place. SAG members participated and helped with translations for Spanish speakers.

School Wellness Policies- SAG members participated on school wellness committees in 3 school districts to work on writing the local wellness policy. The policy for District #1 addresses nutrition education, food brought from home during the school day, parties for the classrooms, physical education and vending machines. District #1 will be reviewing the policy twice a year. The policy was taken to the School Board and then to a principals' meeting. They have the full support of superintendent.

First Youth Fitness Center in Yuma- YMCA received an extra \$5000 for collaboration with Steps for the Youth Center.

Resource Directory developed by the Western Arizona Council of Government's Area Agency on Aging

Collaboration and networking from different agencies– One example: through the SAG, the WACOG AAA is more aware of community partners and Campesinos Sin Fronteras has been introduced into their provider network through an RFP to work with older persons.

Convenience Store– a locally owned convenience store now carries 1% and fat free milk due to the SAGS efforts.

“What Were the Challenges?”

“Competing priorities, resistance to change, getting the right people to participate, funding, ”

“In the parks area, there's funding to build parks, but not for their maintenance. The Board of Supervisors expressed their concerns about this”

“Challenges of awareness of the needs of the older population, their mobility, access to grocery stores and walking to them. Senior centers in communities where the elderly don't need to drive to get to them”

“Staff turnover, time to take on new projects, recruiting new members”

Central Yuma Special Action Group

Yuma County Cooperative Extension
Various SAG members

Critical Reflection on Progress and Policy Change: 2005-2008

Bringing Awareness to Local Decision Makers

- ◆ The *Status of Health in Yuma County* form was an eye opener. It made it possible to showcase what is happening in the community.
- ◆ Getting newspaper/media coverage; over time the Board of Supervisors had been more receptive to ideas about how to deal with obesity. The NAP SACC presentation to the BOS had media coverage, as a result the project received a full page story in the newspaper. The *Body Walk* was also presented to the BOS.
- ◆ After years of advocacy and campaigning, legislation was passed to include 6.3 million dollars for the aging, through efforts of WACOG AAA and education attempts from other SAG partners.
- ◆ SAG members notify legislators of the need for walking areas and parks. They also approached the San Luis City Council about parks, and bike safety awareness.
- ◆ Overall, people responsible for making decisions are more aware of the issues through the efforts of SAG.
- ◆ Community leaders are more aware of the relationship between healthy lifestyles and healthy communities, and that they need to be involved. School Board, principals, superintendents are in the loop and working together on the wellness policies.
- ◆ SAG members invite decision makers to the meetings and have them on mailing lists.

Impact on Individual Organizations

- ⇒ **Campeños Sin Fronteras**– The SAG has been key in getting funding for programs.
- ⇒ **Regional Center for Border Health** has also been able to seek further funding because of the SAG.
- ⇒ **School District One**– by sharing information with school personnel, resistance to the wellness policy mandate decreased. It has brought nutrition to the forefront, when they were not keeping “healthy bodies, healthy minds” as a priority. Being on this committee shows them that community members want this. It is not just a controversial topic, there are changes that need to be made, and other people are interested in getting those changes made. The community wants health to be a priority.
- ⇒ **WACOG** increased provider network, and a new series of services to the community.
- ⇒ **YMCA Youth Fitness Center** was made possible by having a local Yuma Steps program.

Central Yuma Special Action Group

Yuma County Cooperative Extension
Various SAG members

Critical Reflection on Progress and Policy Change: 2005-2008

“What Helped You Succeed?”

“Members that were involved and volunteered to participate on committees”

“Consistency and leadership of U of A Cooperative Extension”

“Team work – two heads are better than one. The collaboration that takes place in the subcommittees”

“Staying on track”

“Persistence, against resistance in the policy committees. Schools were not willing at the beginning to open the doors to an outsider to participate in the committee. The persistence of the people contacting the schools to allow that participation helped.”

“Good participation in the SAG meetings. People calling one day ahead to remind us of the meeting. Food available in the meetings”

“Different stakeholders, very diverse group, with special focus within each organization, but as we sit at the table we share best practices. Overlapping goals or agendas”

“Professionalism, there is a goal, and we stay on track, the integrity of the group”

“That the County had someone whose job is to work with parks and parks development was critical in the support and participation of the SAG in Board of Supervisors meetings to increase park development. This person provided the information and details about what was taking place at the county level.”

“Convenient meeting places, accessible place to meet”

“The Steps to a Healthier Arizona Initiative”

“Looking back and recognizing successes and accomplishments, kept everybody motivated”

Yuma County Asthma Special Action Group

DOMAIN

Policy, Environment

HEALTH FOCUS

Asthma

OBJECTIVE

Develop and implement policies that will help reduce environmental asthma triggers (pesticides, smoke, allergens) and improve air quality.

METHODOLOGY

Membership and collaboration were assessed using attendance lists, a member survey, and a collaboration survey which are administered once a year. Policy priorities were assessed through the member survey, and action plans. Programs and activities implemented through the SAG to achieve policy goals are documented in meeting minutes, and through an end of year critical reflection discussion.

MEASURES/DATA SOURCES

1. Participation
2. Collaboration survey
3. Member survey
4. Meeting minutes
5. Action plan
6. Critical reflection process

PARTNERS

UA Yuma County Cooperative Extension
Various SAG partners

Recognition of the extent to which individual health-related behavior is shaped by social and cultural norms and by the physical environment of a community has brought increasing attention to systems and environmental factors that contribute to health related behaviors. The Special Action Group is a community-based coalition focused on creating policy change that directly impacts the prevention and control of diabetes, asthma and/or obesity. The SAG may include representatives from government, health and human services, schools, media, business, faith-based organizations, law enforcement, and concerned citizens. Core membership consists of local community members, however as the meetings are open forums, they are attended by guests throughout the region.

SAGs were first developed in 1999 in Yuma and Santa Cruz Counties to address diabetes prevention and control through the Border Health Strategic Initiative. The SAGs moved through several stages of development, beginning with basic education about the risk factors for diabetes. The second stage focused on the distinctions between programs and policies. For many SAG members, planning and implementing policy change was a new experience. The third stage involved an inventory and review of relevant conditions and policies that currently existed in the community. On the basis of the inventory, each SAG identified and prioritized policies and developed action plans. Policy-related achievements of the SAGs to date include raising awareness about chronic disease and behavioral risk factors, involvement in city planning processes to increase open spaces, and increased resources to the communities to build infrastructure for recreational activities.

In Yuma County the interest in asthma was so great that SAG members decided to form a separate SAG to exclusively address this health issue. The coalition is directing efforts for South and Central Yuma County. Through Steps, the Asthma SAG was formed during the first year of Steps (2003), and has made remarkable achievements including initiating the first Yuma asthma camp, and getting Open Airways for Schools back into many schools. These programs are part of the Asthma SAG's effort to raise awareness of asthma and begin to address policy change. In 2007 the Yuma County Public Health Services District took the facilitation and logistical lead for the Central SAG, and is committed to the group process and discovering methods to sustain the partnership. In 2008 the Asthma SAG joined the existing Tobacco Coalition, to form the Tobacco and Asthma Coalition (TAC); both groups have similar goals, particularly around respiratory health, and second hand smoke, and environmental air quality. The TAC continues to meet and receives support from the Arizona Department of Air Quality.

Asthma Special Action Group

Yuma County Cooperative Extension
Various SAG members

Membership and Collaboration: 2004—2008

Since the Asthma Special Action Group of Yuma County began in 2004, the number of organizations participating has ranged from 10 to 18. The group meets 5 or 6 times a year, including planning meetings for Camp Not-A-Choo; average annual attendance ranged from 9 to 14 people.

A 2007 member survey of 16 people showed that 94% of the Asthma SAG members are female, and 75% are Hispanic or Latino. Most are 40 years of age or older, and 56% have a Bachelor's degree or higher. Most members' respective organizations serve all ages of the community, and 94% specifically work with children ages 4–11. While all the organizations serve all income levels, 94% of them serve a low income population. These organizations mostly serve Hispanic / Latino people, but also Anglo, Native American, and African American.

Below is a list of past and current coalition partners:

Local Organizations

Alice Byrne School
Arizona Department of Environmental Quality (ADEQ)
Arizona Department of Agriculture
Campesinos Sin Fronteras
Child and Family Resources
Gadsden School District
Legal Aid
Office of Congressman Raul Grijalva
Regional Center for Border Health, Inc.
University of Arizona, Yuma County Cooperative Extension
Yuma Community Foundation
Yuma Elementary School District #1
Yuma County Public Health Service District

- Health Promotions
- Nutrition / NAP SACC
- Nursing

Yuma Regional Medical Center

Regional / State Partners

Arizona Department of Health Services
U of A Zuckerman College of Public Health

Asthma Special Action Group

Yuma County Cooperative Extension
Various SAG members

Member and Collaboration Surveys

The Wilder Inventory

The Wilder Inventory consists of 40 questions that are designed to measure factors that have been identified through research as related to collaboration. The factors are grouped into six categories that seek to explain the success of a collaborative group. These are:

- | | |
|-------------------------------|------------------|
| 1) Environment | 4) Communication |
| 2) Membership Characteristics | 5) Purpose |
| 3) Process and Structure | 6) Resources |

Scoring is based on average group response on a 5 point scale. Scores of 4.0 or higher show a strength and probably don't need attention. Scores 3.0- 3.9 are borderline and should be discussed by the group to see if they deserve attention, and scores of 2.9 or lower reveal a concern and should be addressed.

SAG members also answer a **member questionnaire** which captures demographics and open ended responses about the collaboration or policy priorities.

Sixteen Asthma SAG members completed the survey in December of 2004, approximately one year after it formed. The survey was taken again in December of 2005 and September 2007. On a scale of 1 to 5, members scored themselves from 3.5 to 4.2 in all categories; results were similar in all three years. Members scored themselves highest in "Communication" and "Purpose," and lowest in "Resources."

In 2007 Asthma SAG members gave the **highest scores** to: 1) having a shared vision, 2) recognition that together they can accomplish what their single organization can't do by itself, and 3) no other organization is trying to do what they do. The **lowest score** was given to having insufficient funds/materials/staff/time.

FACTORS THAT MAKE STEPS-ASTHMA SAG COLLABORATION WORK*	2004 December (n=15)	2005 December (n=9)	2007 September (n=16)
Scale: 1 to 5 (weakness—strength)	Mean (SD)	Mean (SD)	Mean (SD)
Environment (6 questions)	3.9 (.71)	3.8 (.82)	4.0 (.72)
Membership Characteristics (6 questions)	3.8 (.91)	4.1 (.82)	3.8 (.77)
Process & Structure (13 questions)	3.6 (.72)	4.1 (.56)	4.1 (.64)
Communication (5 questions)	4.0 (.72)	4.2 (.49)	4.0 (.63)
Purpose (7 questions)	4.0 (.67)	4.2 (.58)	4.2 (.56)
Resources (3 questions)	3.5 (.76)	3.7 (.94)	3.5 (.95)
* Wilder Collaboration Factors Inventory			

Asthma Special Action Group

Yuma County Cooperative Extension
Various SAG members

Policy Priorities:

Action Plan 2004—2007

Goals:

1. Address schools regarding asthma education and self-management
2. Increase asthma education in schools and student self-management through asthma programs (i.e. Open Airways), and supporting that students carry inhalers after successfully completing training and receiving school nurse (RN) approval.
3. Have breathing machines available in schools.
4. Continue to coordinate and offer annual asthma camp

Action Steps and Activities:

1. Research local statistics regarding Emergency Room admissions, school absenteeism, and information for Power Point presentation
2. Contact School Boards and present at School Board meetings and Principals meetings.
3. Work with hospital and providers to develop action plans for individual patients to be used in schools.
4. Present providers with asthma coalition efforts and school action plan protocol.
5. Develop list of local asthma resources.
6. School Board and Principal presentations to be made during Fall 2004

Resources:

- Coalition member resources
- Power Point Presentation
- Open Airways Program
- Yuma Regional Medical Center Foundation
- Arizona Department of Health Services
- Arizona Department of Education
- National Association of School Nurses

Action Plan for 2008

The Asthma SAG has developed ways to sustain its original goals and continue to support asthma policies and practices in schools, in addition to offering a yearly camp for children and parents. **New priorities include increasing awareness of air quality through community and media collaboration.** Activities include piloting the *Flag Program*, maintaining a media list and communications, and referring school coaches to the training for *Athletes with Asthma*. Resource partners include the Arizona Department of Environmental Quality, Maricopa County Asthma Coalition, and Flag Vendors.

Asthma Special Action Group

Yuma County Cooperative Extension
Various SAG members

Critical Reflection on Progress and Policy Changes:

SAG members participated in a guided discussion to reflect critically on their progress in October of 2005. The discussion highlights the progress and success of the group as well as how and why the group is successful.

Overall Success

- ⇒ Developed a network of people
- ⇒ Formalized an asthma group/coalition
- ⇒ First annual local asthma camp, Camp Not-A-Choo.
- ⇒ Local support from community businesses for asthma camp including donations, 9 sponsors, and 41 volunteers
- ⇒ Got Open Airways back into Schools
- ⇒ Bringing the Open Airways for Schools training to Yuma built capacity in our organizations and community
- ⇒ SAG members, such as Campesinos Sin Fronteras collaborated with the CASA Project to raise awareness about asthma, resources and mitigation of problem
- ⇒ Through evaluation Yuma County Public Health Services District incorporated an asthma checklist to their NAP SACC program, which brought referrals to Campesinos Sin Fronteras to provide childcare provider workshops.

Bringing Policy Awareness to School Nurses

In the summer of 2005 Steps Asthma-SAG members created and sent a letter to school nurses to raise awareness of asthma legislation for schools, and to encourage nurses to take the lead in implementing the policies.

The current Arizona legislation is:

HB 2229: Asthma Rescue Medication Bill, **signed 4/11/05**, and

SB 1309: Pupils with Anaphylaxis Carry and Self-Administer Emergency Medications, **signed 5/11/05**

Policy Change: Bringing Awareness to Local Decision-Makers

“We have been able to present to every school board in Yuma, about asthma statistics and how students miss school because of it.”

“We presented at principal meetings because sometimes you get to the board but that does not mean you get to the principals.”

“We brought the local community together for the asthma camp. Businesses came together to donate food and goods.”

“We sent letters about the camp to our 2 state representatives and our state senator to let them know this was the first time it took place. Our senator visited the camp.”

Asthma Special Action Group

Yuma County Cooperative Extension
Various SAG members

Critical Reflection on Progress and Policy Changes:

Open Airways for Schools (OAS) Training and Implementation

- The Steps Asthma SAG coordinated 3 OAS trainings for 45 participants.
- The Asthma SAG researched local statistics on asthma related ER admissions and school absenteeism., and presented to 3 school boards and 2 principal meetings.
- Through Steps OAS was implemented in 9 schools, in 3 communities, reaching 106 children with asthma.

Impact on Individual Organizations

- **Department of Environmental Quality:** “The SAG helped to connect. It’s a place to strategize on how to get information out to the community on air quality.”
- **Schools:** School students benefited from the camp.
- **Local asthma programs:** Referring participants
- **Volunteers:** “For anything really, we can get more volunteers to teach Open Airways now.”
- **Knowledge** about what services and resources are available.
- **Strength of the collaboration:** “No one organization could have pulled off the asthma camp. Without the hospital personnel we couldn’t have recruited the providers, we would have gotten the kids but the collaborative effort. Is what made it all come together.”
- **Hospital:** “Maybe some day we will know... one less asthmatic will be admitted to the emergency room because they can manage their asthma better”

Arizona Steps Core Performance Outcomes

This section of the report provides surveillance data measuring Steps Core Performance Outcomes for the years 2004 through 2007. The Behavior Risk Factor Surveillance System (BRFSS), Youth Risk Behavior Survey (YRBS), and hospital discharge data are used to measure program outcomes. In addition to county-specific data where available, Arizona data are included for comparison, and trends are identified.

The BRFSS is a national telephone survey, conducted by the Arizona Department of Health Services (ADHS) to monitor risk behaviors related to chronic disease, injury and death. Phone numbers are randomly selected throughout the state and those over 18 years of age are randomly selected in each household. For 2004-2007, Steps increased the Arizona BRFSS sample to include approximately 500 residents in each of the three counties, Cochise, Santa Cruz, and Yuma. The Tohono O'odham Nation did not participate in the BRFSS. The BRFSS survey has limitations that should be considered. Random digit dialing does not reach residents who do not have a phone. Also households which only use cellular phones are not reached. The sample size for each county is considerably smaller than for the state of Arizona, and data estimates should be considered with caution. For certain questions sample sizes were too small to give proper data estimates. Furthermore, for disease-specific data, information is based upon self reports of medically diagnosed conditions that may underestimate actual disease prevalence. It should also be noted that many Steps interventions target underserved populations which suffer greater health disparity. The county-specific sample sizes are not adequate to capture the prevalence of disease and disease-related risk factors, as well as changes in those factors, for those target populations.

The YRBS is a national survey established to monitor health risk behaviors that contribute to death, disability and social problems among young people. In Arizona, the Arizona Department of Education is responsible for administering the survey to high school students. Like the BRFSS, the YRBS is a self-report survey and the validity of students' responses cannot be confirmed. The survey is conducted during the school day, so it may not capture those students who are chronically absent from school. Data for the 2005 YRBS includes 854 students from 14 high schools in Cochise County, 1,095 students from five high schools in Santa Cruz County, and 1,501 students from nine high schools in Yuma County. Data for 2007 includes 715 students from 16 schools in Cochise County, 1,004 students from four schools in Santa Cruz County and, 1,365 students from 11 schools in Yuma County. In Cochise County in 2007, the sample size was not large enough to weigh the data. While the data is still presented in this report, it is important to keep this in mind when drawing conclusions from the data. The 2007 YRBS was conducted in 3 high schools on the Tohono O'odham Nation, surveying 282 students which yielded weighted data. Results are not presented in this report.

Hospital discharge data contains information about the principal diagnosis chiefly responsible for causing the hospitalization, as well as the secondary diagnoses. These data can be used to describe persons discharged for asthma and diabetes. This information is reported routinely to the Arizona Department of Health Services (ADHS) by all hospitals throughout the state, with the exception of Veteran Administration hospitals, Military hospitals, and Indian Health Service hospitals (these three federal facilities maintain their own data). According to the reporting rules of ADHS, hospitals must record the ICD-9 code describing the condition chiefly responsible for causing the hospitalization and hence is an important source for monitoring chronic disease burden. The graphs below depict trends in hospital discharge rates in each border county and in Arizona from 2003 through 2007.

The primary purpose for documentation of these indicators is to provide a long-term measure for the overall impact of Steps and other factors on the health of the Arizona Steps communities. In addition, this community-specific data also provides community partners with information that can be utilized to influence issues related to program planning and sustainability.

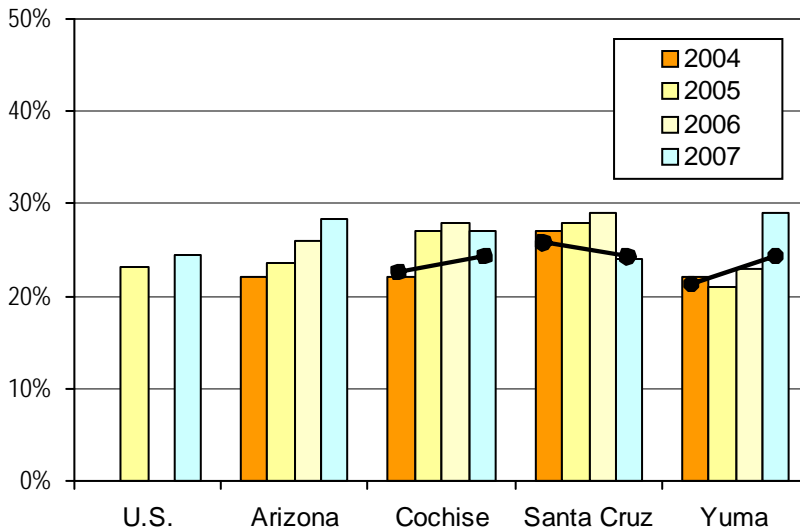
State and Local Core Performance Outcomes

O-I Increased physical activity and healthful eating for children and adults

O-I.1: Fruit and vegetable consumption among adults aged ≥ 18 years

- ◆ Approximately 25% of individuals in the border counties eat the recommended amount of fruits and vegetables each day.

Eats 5 or more fruits and vegetables a day, adults age 18 and older
BRFSS Data: 2004-2007

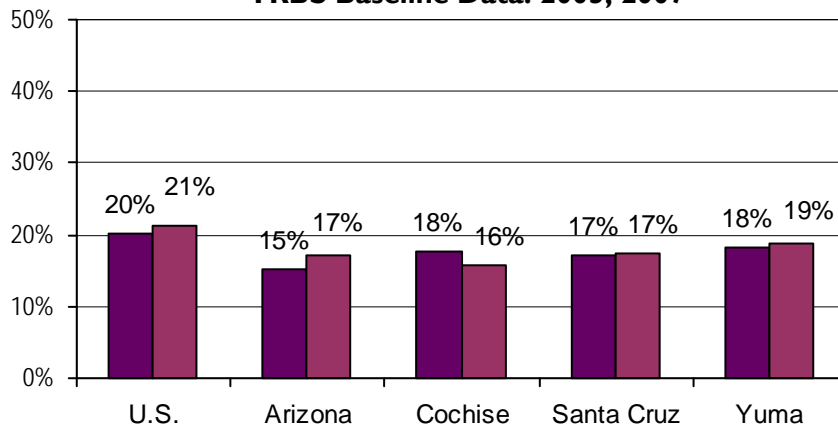


- ◆ Over the four year period, fruit and vegetable consumption increased in Arizona overall. This trend was matched in Yuma and Cochise County.
- ◆ In contrast, Santa Cruz County experienced a downward trend in fruit and vegetable consumption.

O-I.2: Fruit and vegetable consumption among youth

- ◆ A smaller percentage of youth eat the recommended allowance of fruits and vegetables per day than do adults. The percentage of youth in the Steps counties that report eating the recommended allowance is also smaller than in the U.S. as a whole.

Eats 5 or more fruits and vegetables per day, youth
YRBS Baseline Data: 2005, 2007

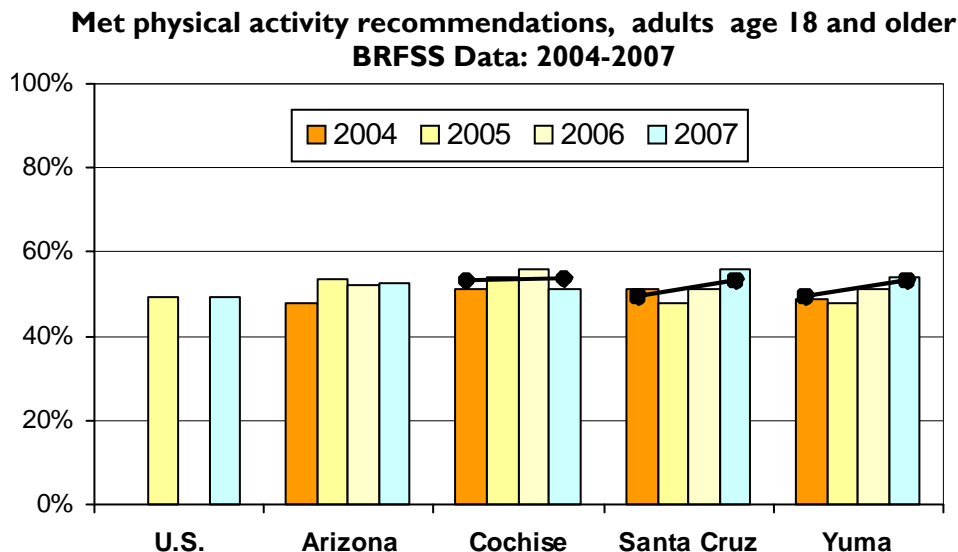


State and Local Core Performance Outcomes

O-I Increased physical activity and healthful eating for children and adults

O-I.3: Recommended physical activity among adults aged ≥ 18 years

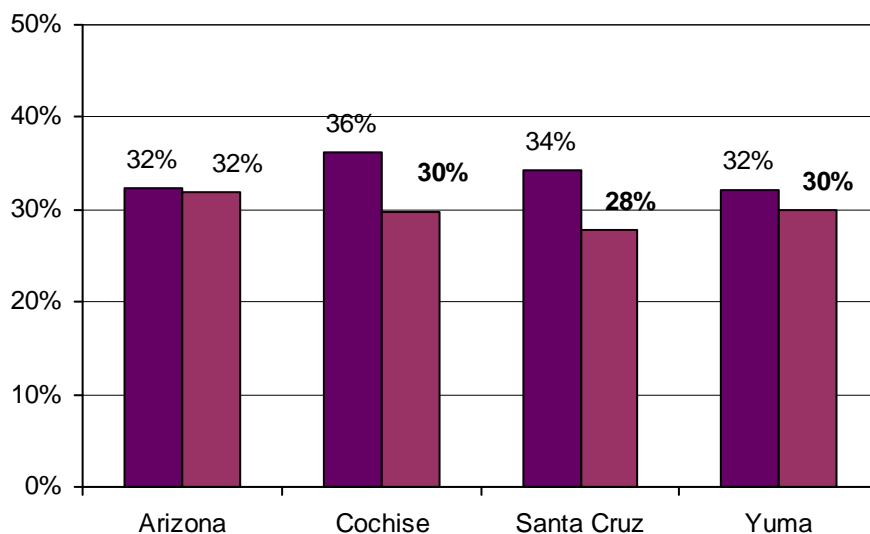
- ◆ Sana Cruz and Yuma Counties experienced a slight increase in the four year trend for physical activity, while Cochise County showed now change. Rates are similar to Arizona and the U.S. as a whole.



O-I.4: Recommended physical activity among youth

- ◆ Approximately one-third of high school students met physical activity guidelines.

Met physical activity recommendations, youth
YRBS Data: 2005, 2007



- ◆ Santa Cruz and Yuma Counties experienced an upward trend in the percentage of adults meeting physical activity guidelines.

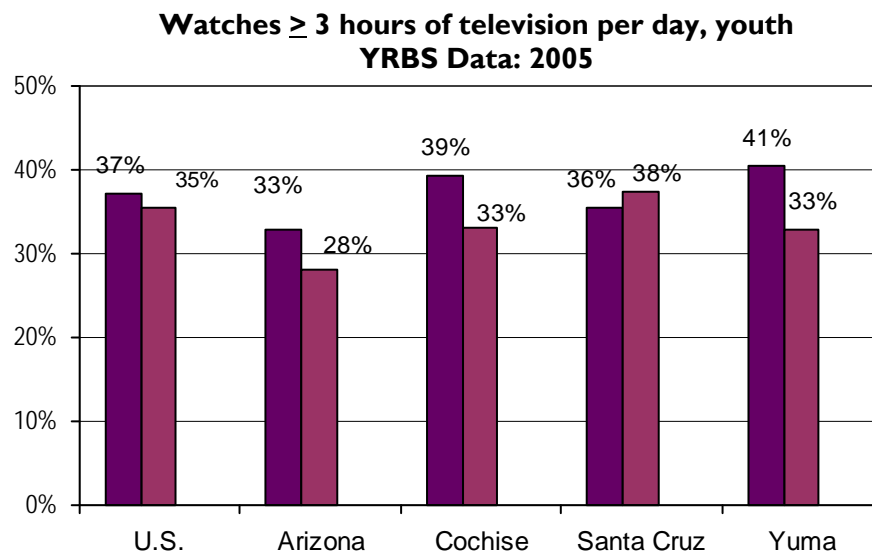
- ◆ In 2007, fewer youth were meeting physical activity guidelines, while in Arizona, the overall percentage remained constant.

State and Local Core Performance Outcomes

O-I Increased physical activity and healthful eating for children and adults

O-I.5: Television viewing among youth

- ◆ In 2007, all three border counties report a higher percentage of students that watch more than 3 hours of television per day than in Arizona and the U.S. as a whole.



- ◆ A higher percentage of 9th graders watched television 3 or more hours a day than 12th graders.
- ◆ A higher percentage of female students watched 3 or more hours of television than male students.

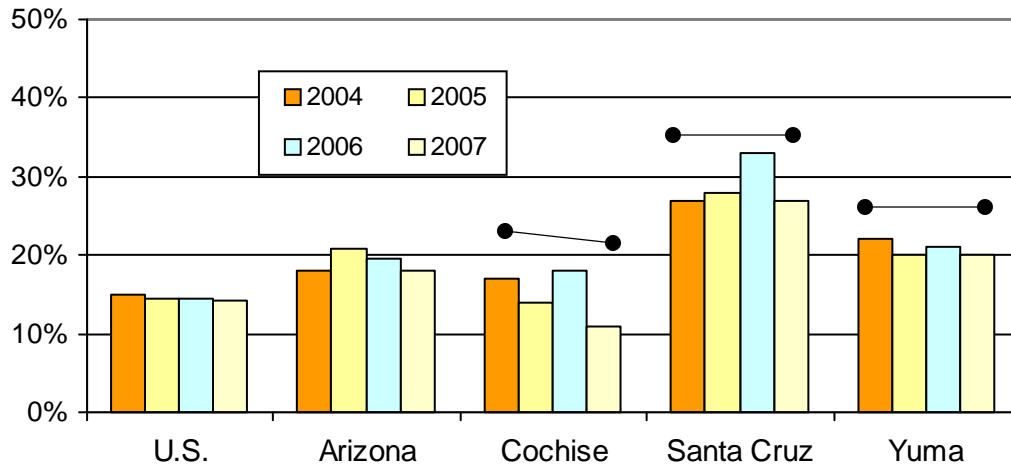
State and Local Core Performance Outcomes

O-2 Improved access to and quality of clinical services for asthma, diabetes, and tobacco cessation

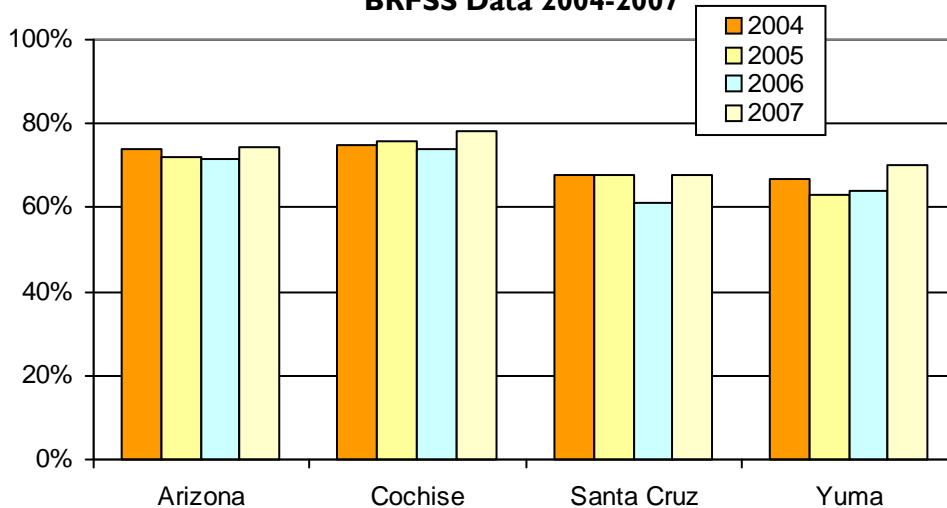
O-2.1: Health care access

- ◆ Rates of uninsured are slightly higher in Arizona and the Steps communities than in the U.S.. Over the 4-year period, Santa Cruz consistently had the highest rate of uninsured, almost double that of the U.S..
- ◆ Over the 4-year period, Cochise experienced a downward trend in the rate of uninsured, while Santa Cruz and Yuma Counties remained constant.

**Reported having no health care coverage, adults 18 and older
BRFSS Data 2004-2007**



**Has someone they think of as their personal doctor, adults 18 and older
BRFSS Data 2004-2007**



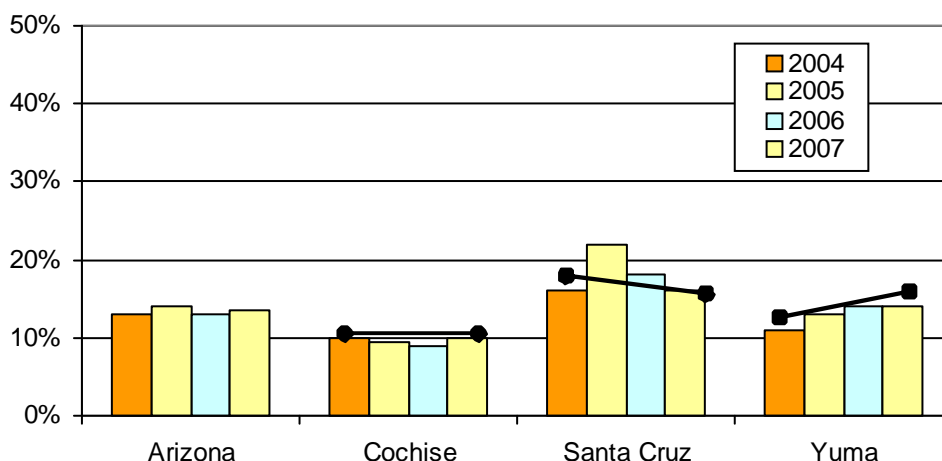
State and Local Core Performance Outcomes

O-2 Improved access to and quality of clinical services for asthma, diabetes, and tobacco cessation

O-2.1: Health care access

- ◆ Another indicator of health care access is the percentage of adults who are unable to see a doctor because of the cost. Santa Cruz County shows the greatest disparity of care compared to the other counties and the state, although Yuma County experienced an upward trend in this indicator over the 4-year period.

**Did not see a doctor in the past year because of the cost
BRFSS Data 2004-2007**



In Yuma and Santa Cruz Counties, adult Hispanics are more likely to not have any kind of health care coverage, and are more likely to not be able to see a doctor when needed because of costs compared to Non-Hispanic whites.

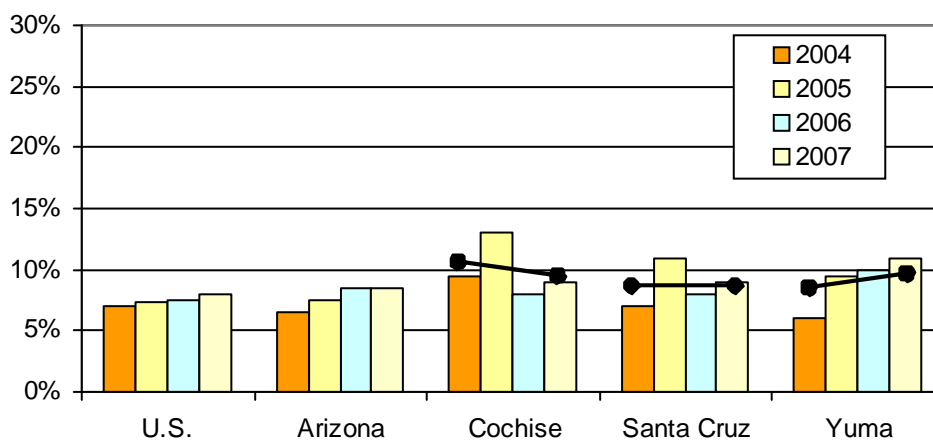
State and Local Core Performance Outcomes

O-3 Increased identification of persons with pre-diabetes and diabetes

O-3.1: Reduce the overall rate of diabetes that is clinically diagnosed among adults

- ◆ In 2005, the rate of diabetes among adults is higher in the Steps counties than in the U.S. and in Arizona. The reported prevalence rate is 13% in Cochise County, 11% in Santa Cruz County, and 9% in Yuma County.

**Has been told by a Doctor or Nurse that they have diabetes, adults 18 and older
BRFSS Data 2004-2007**

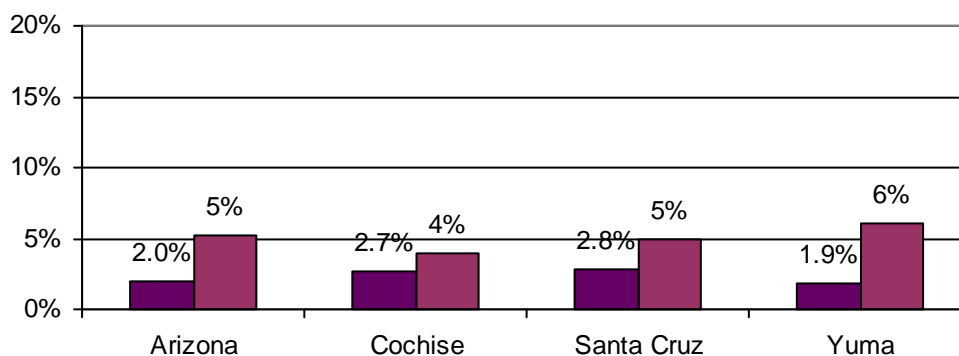


- ◆ Adult females were more likely to be diabetic than males (Yuma).
- ◆ No other obvious trends (data will be needed for several years in order to analyze diabetes related indicators.)

O-3.2: Reduce the overall rate of diabetes that is clinically diagnosed among youth

- ◆ Among youth, the reported rate of diabetes has increased in Arizona and the three border counties..

**Has been told by a Doctor or Nurse that they have diabetes, youth
YRBS Data 2005. 2007**



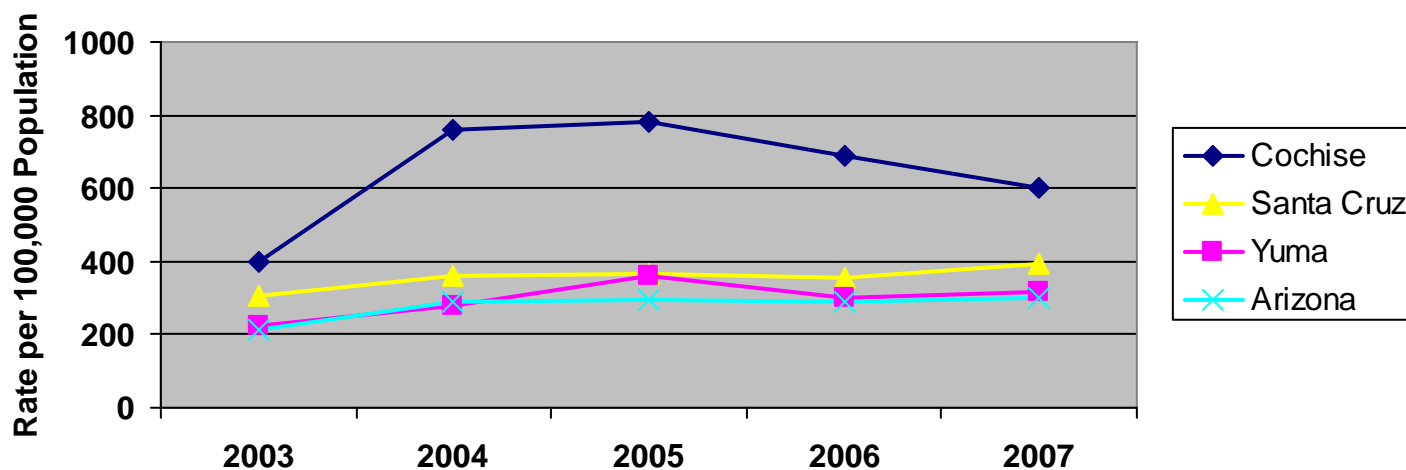
State and Local Core Performance Outcomes

O-3 Increased identification of persons with pre-diabetes and diabetes

O-3.1: Reduce the overall rate of diabetes that is clinically diagnosed among adults

- ◆ Cochise County has the highest rate of diabetes related hospitalizations compared to the other Steps communities and Arizona as a whole. The rate of diabetes hospitalizations increased between 2003 and 2005, but decreased from 2005 to 2007 from 780 to 599.8.
- ◆ The rate of diabetes related hospitalizations in Yuma County in 2007 was 395.3 per 100,000. In Santa Cruz County, the 2007 rate was 395.3.

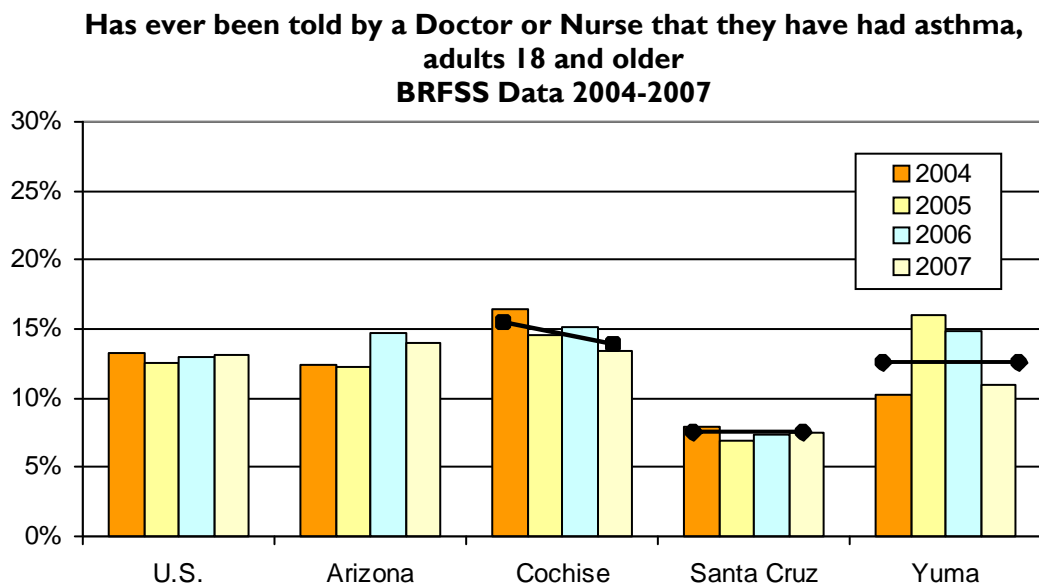
Diabetes Related Hospitalizations



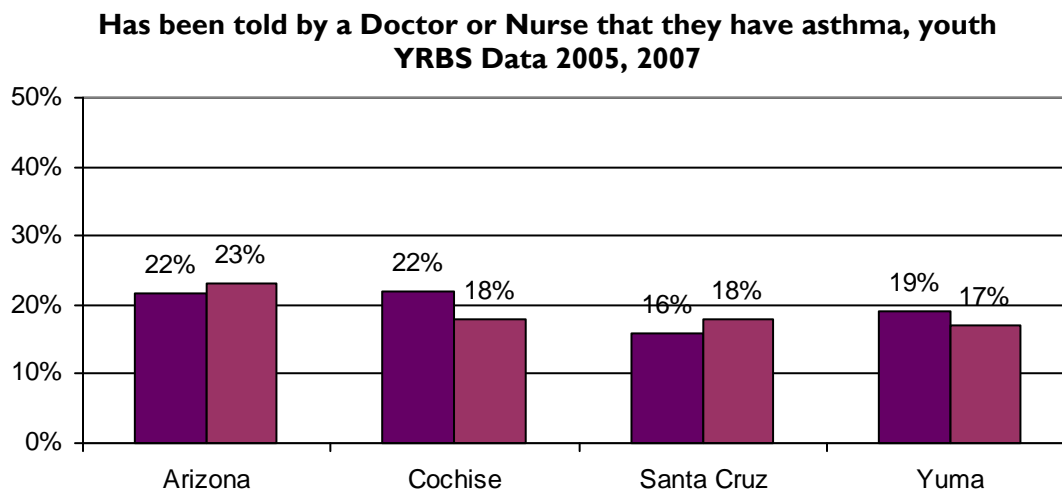
State and Local Core Performance Outcomes

O-4 Improved self management of asthma and diabetes

Asthma prevalence among adults and youth



- ◆ Rates of adult asthma are relatively low in Santa Cruz County compared to the other border counties, Arizona, and the U.S. Cochise County experienced a downward trend over the past four years, while Santa Cruz and Cochise Counties remained constant.
- ◆ Among youth, Cochise County has a prevalence rate as high as Arizona, while Santa Cruz and Yuma Counties have a lower prevalence rate.



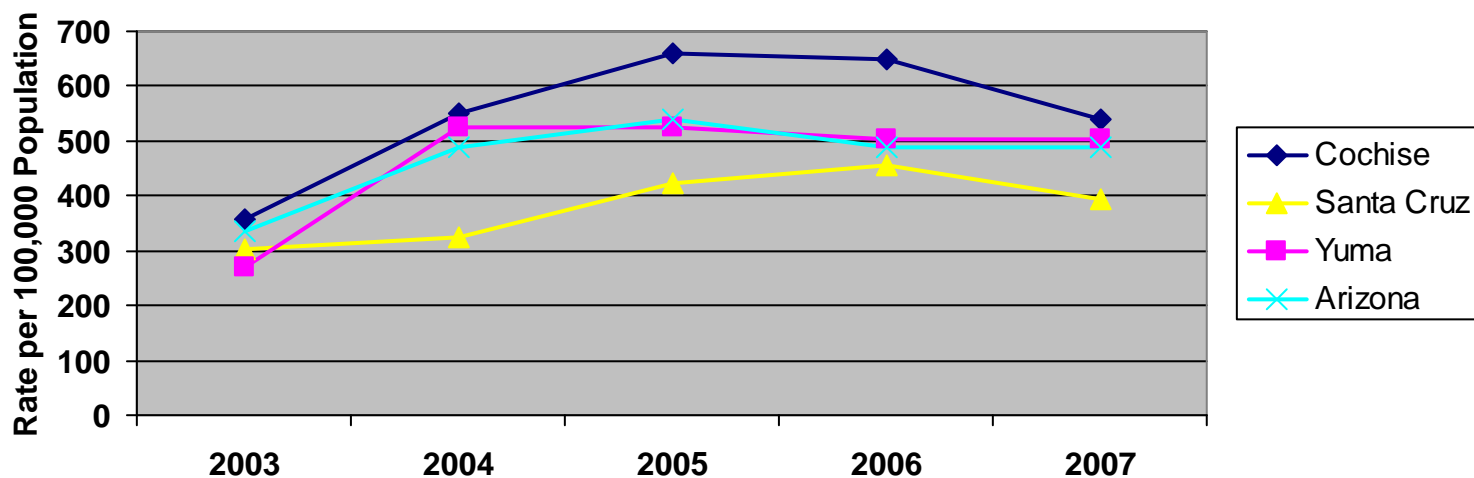
State and Local Core Performance Outcomes

O-4 Improved self management of asthma and diabetes

Asthma prevalence among adults and youth

- ◆ The rate of asthma hospitalizations rose in all of the Steps counties between 2003 and 2005 and in Arizona overall. Cochise County had the highest rate of hospitalization.
- ◆ From 2005 to 2007, the rate of asthma hospitalization decreased in Cochise County from 658.6 to 538.8 per 100,000. residents.
- ◆ In 2007, Santa Cruz had an asthma hospitalization rate of 393.2 and Yuma County had a rate of 504.9.

Asthma Related Hospitalizations



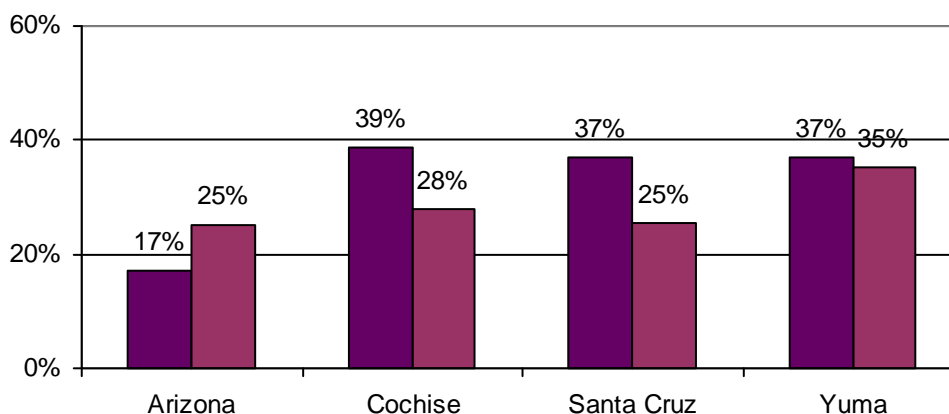
State and Local Core Performance Outcomes

O-4 Improved self-management of asthma and diabetes

Asthma attacks in the past 12 months among youth

- ◆ The percentage of high school youth with asthma that had an attack in the past year decrease in all the Steps counties in 2007 compared to an increase in Arizona as a whole.

Had asthma attack in the past year (among those with asthma) youth
YRBS Data 2005



Hispanic students are less likely to report having asthma (lifetime and current) than non-Hispanic whites.

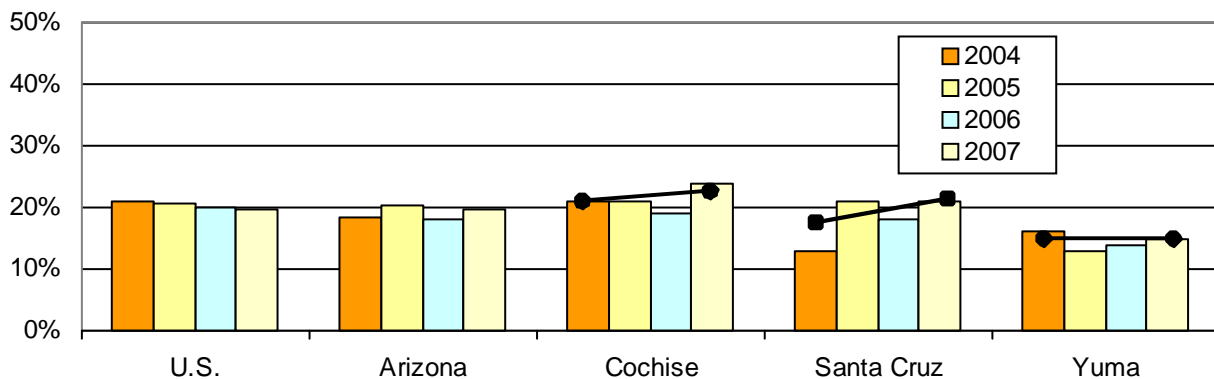
State and Local Core Performance Outcomes

O-5 Measurable improvements in physical activity, healthful eating, and tobacco use

O-5.3: Cigarette smoking among adults aged ≥ 18 years

- ◆ Cochise and Santa Cruz Counties experienced an upward trend in the prevalence of smoking from 2004-2007, while in Yuma County the rate remained consistent. There are fewer smokers in Yuma County than in Arizona and the U.S.

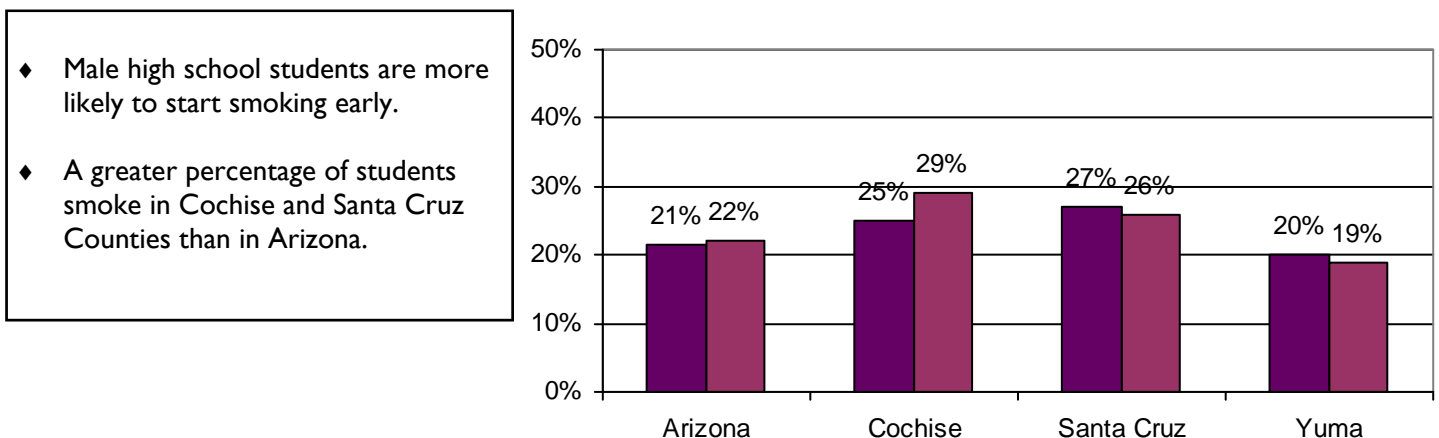
Cigarette smoking among adults
BRFSS Data 2004—2007



O-5.4: Cigarette smoking among youth

- ◆ High school youth in Santa Cruz County reported the highest prevalence rate of smoking (27%), while youth in Yuma reported the lowest rate 20%.

Cigarette smoking among youth
YRBSS Data 2005, 2007

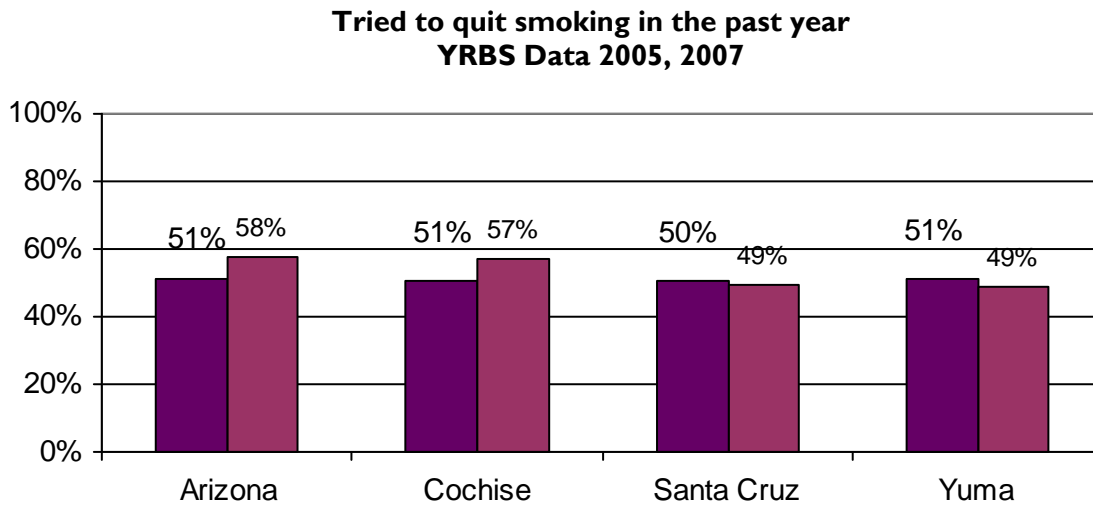


State and Local Core Performance Outcomes

O-5 Measurable improvements in physical activity, healthful eating, and tobacco use

O-5.2 Tobacco use cessation attempts by adolescent smokers

- ◆ Approximately one-half of high school smokers attempt to quit each year.

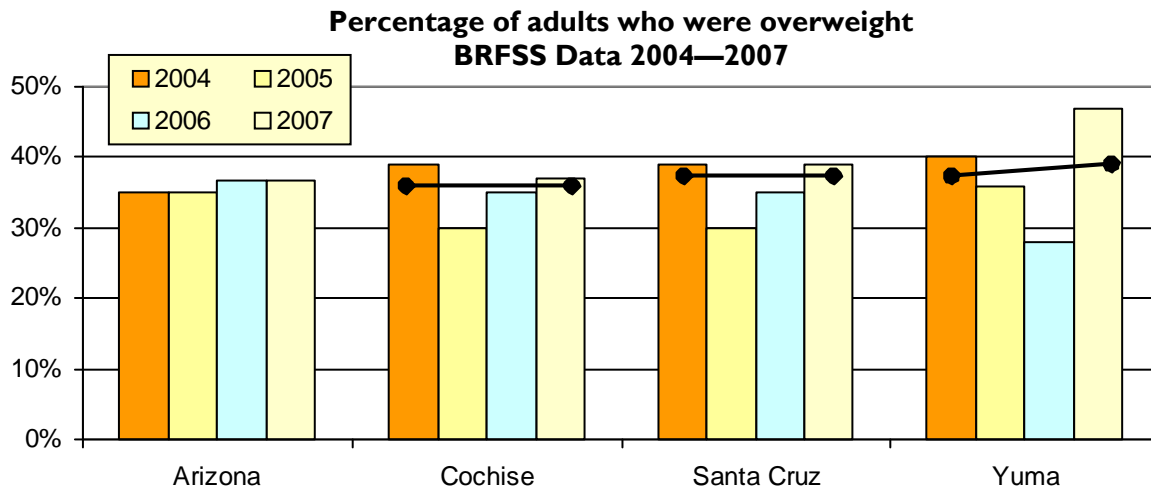


State and Local Core Performance Outcomes

0-6 Slowed upward trend of overweight and obesity in Steps communities

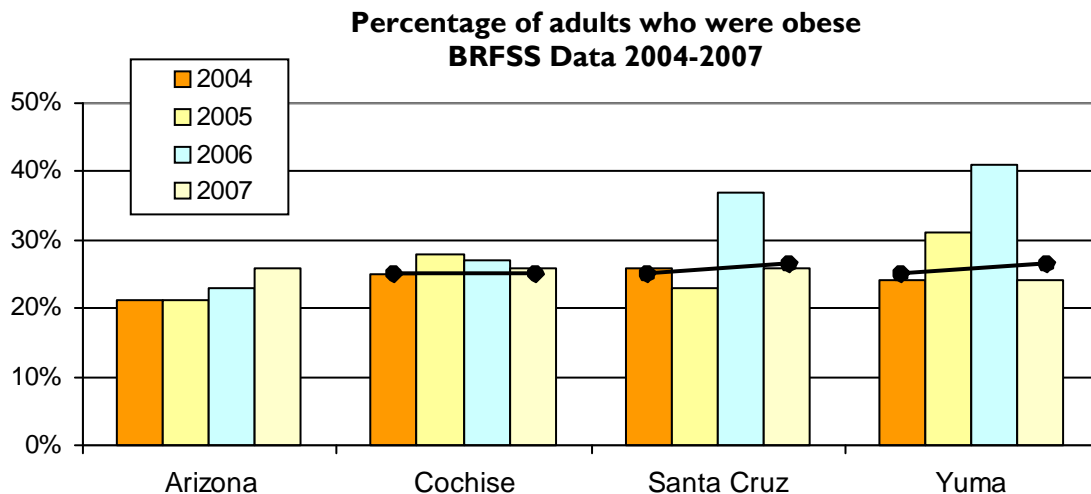
0-6.1: Prevalence of overweight among adults ≥ 18 years

- ◆ The percentage of adults who are overweight or obese is higher in the Arizona Steps counties than in Arizona as a whole. Approximately two-thirds of adults are overweight or obese.
- ◆ There was little change in the prevalence of overweight/obesity between 2004 and 2007.



- ◆ Males are more likely than females to be overweight.
- ◆ Hispanic adults are more likely to be obese than non-Hispanic whites (Yuma, Cochise).

0-6.3: Obesity prevalence among adults ≥ 18 years



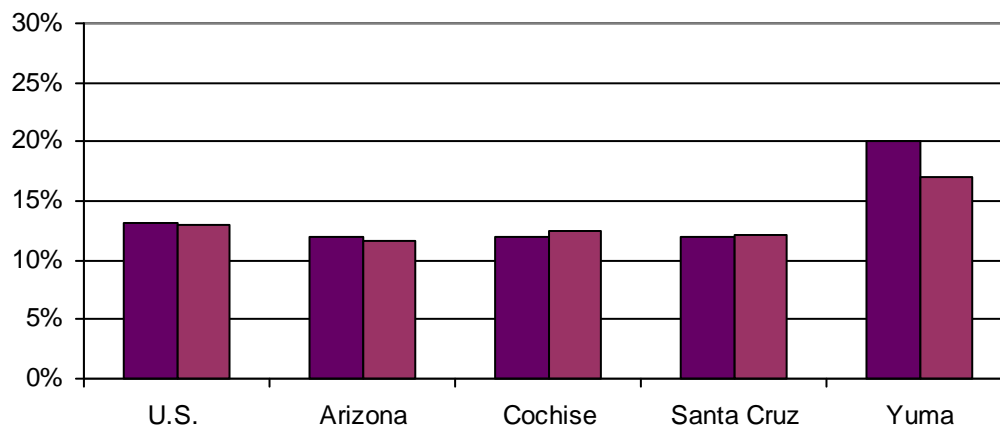
State and Local Core Performance Outcomes

0-6 Slowed upward trend of overweight and obesity in Steps communities

O-6.3: Overweight prevalence among youth

- ◆ A higher percentage of youth in Yuma County reported being overweight compared to Santa Cruz and Cochise counties.
- ◆ Youth in Cochise and Santa Cruz Counties report a prevalence rate of overweight similar to Arizona and the U.S. as a whole.

Percentage of youth who are overweight
YRBS Data 2005



- ◆ Adolescent males are more likely to be overweight than females.

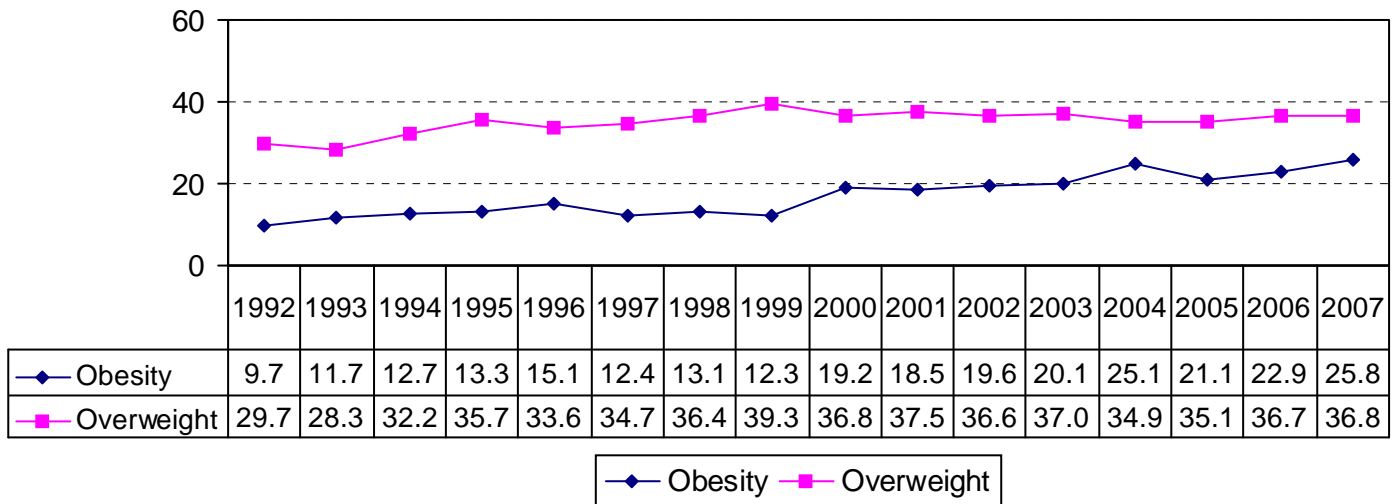
State and Local Core Performance Outcomes

0-6 Slowed upward trend of overweight and obesity in Steps communities

O-6.1, O-6.2: Prevalence of overweight / obesity

- ◆ In the state of Arizona, BRFSS data demonstrates upward trends in the prevalence of both obese and overweight adults. In 2007, one in four residents reported being obese, and 37% were overweight.
- ◆ The prevalence of obesity doubled in the ten year period between 1997 and 2007.

**Trends in Obesity and Overweight in the State of Arizona
1992-2005 Behavioral Risk Factor Surveillance System**



State and Local Core Performance Outcomes

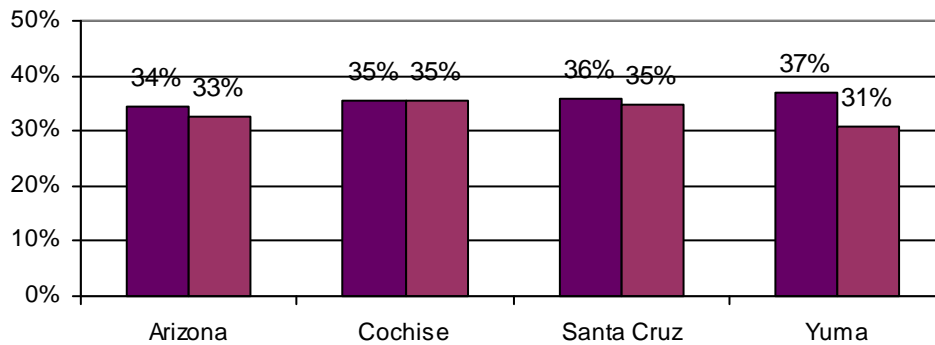
0-8: Improved health-related quality of life

Mental health symptoms among youth

- ◆ Nearly one-third of high school students report having severe mental health issues.

Percentage of students who, during the past 12 months, felt so sad or hopeless almost every day for 2 weeks or more that they stopped doing some usual activities.

YRBS Data 2005, 2007



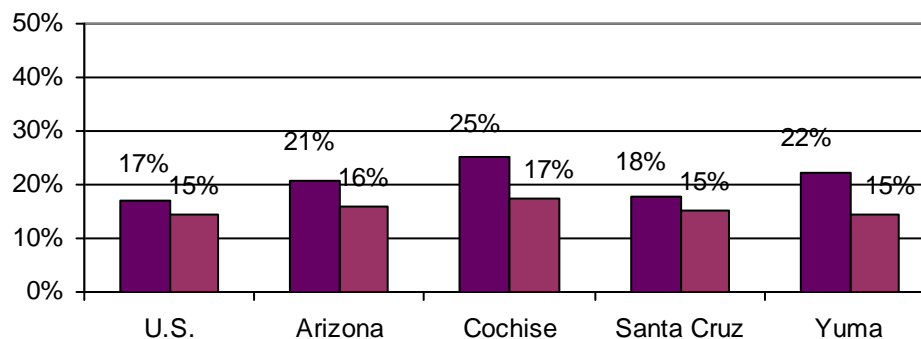
- ◆ A larger percentage of girls than boys answering the survey reported feeling sad or hopeless or contemplating suicide.

Seriously considered suicide

- ◆ The percentage of students who seriously considered suicide in the past year decreased between 2005 and 2007.

Percentage of students who seriously considered suicide in the past 12 months.

YRBS Data 2005, 2007



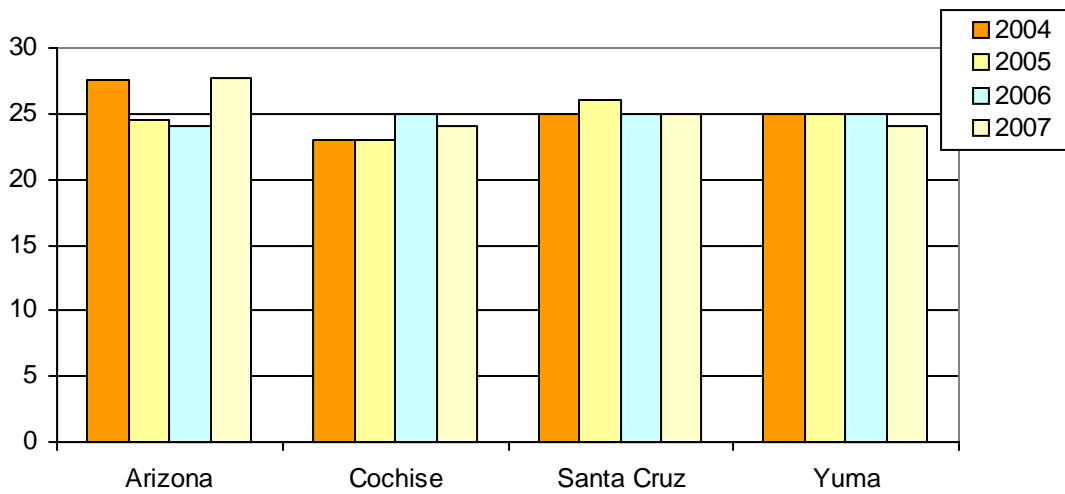
State and Local Core Performance Outcomes

0-8: Improved health-related quality of life

0-8.1: Mean number of healthy days

- ◆ Residents of border counties reported fewer healthier days per month than did Arizona residents as a whole. Cochise County reported the lowest average number of healthy days per month.

Mean Number of Healthy Days in the Past 30 Days
BRFSS Data 2004-2007



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