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IMPACT OF COMMUNITY HEALTH WORKERS  
ON ACCESS, USE OF SERVICES AND PATIENT  
KNOWLEDGE AND BEHAVIOR

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# IMPACT OF COMMUNITY HEALTH WORKERS ON ACCESS, USE OF SERVICES AND PATIENT KNOWLEDGE/BEHAVIOR

## EXECUTIVE SUMMARY

Community Health Workers (CHWs) have been used in health centers for the last several decades in a variety of capacities. Although they are known by various names (e.g., community health advisors, community outreach workers, lay health workers, *promotoras*) as a group they are trusted and respected community members who provide informal community-based health-related services and who establishes vital links between community-based health providers and persons in the community.'

In recent years programs funded by the Bureau of Primary Health Care (BPHC) have increased their use of CHWs to augment and complement the care patients already receive from medical and social service staff members, as well as to help link the community with the providers. To better understand the use of CHWs in its funded programs, the BPHC initiated this study to evaluate a small sample of organizations using CHWs. The evaluation has three purposes: 1) to inform BPHC on how its programs use CHWs, who they are, what they can contribute, how they are managed. (As patterns emerge, they can be used to make project, program and policy decisions at the local and national levels); 2) to determine the outcomes of using CHWs on patients' access to services, proper use of services and on patient knowledge and behavior; and 3) to set the stage and provide background for further studies on CHWs.

We studied the following seven sites:

**Alameda County Health Care for the Homeless Program** operates an **outreach program** staffed by CHWs to carry out case-management activities for homeless people of Alameda County, California.

**Brownsville Community Health Center's CHW program, *Mano A Mano* (Hand-in-Hand)**, uses *promotorus* (health promoters) from this Texas/Mexico border community to conduct home visits to: 1) identify pregnant women and help them gain access to prenatal care; 2) educate the community on a comprehensive array of health conditions; and 3) refer clients to services available in the community.

**Logan Heights Family Health Center** located in San Diego, California, has two CHW programs that focus on the protection of sexually active youth through parental organization and education and peer counseling.

**Northwest Michigan Health Service's Camp Health Aide Program** uses migrant farmworkers as health-resource persons in the migrant camps to provide community health care among fellow farmworkers and promote early enrollment of women into

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<sup>1</sup> *Community Health Advisors: Models, Research, and Practice: Volume I, Centers for Disease Control and Prevention, September 1994, Preface.*

prenatal care; improve the health maintenance of migrant families; and increase awareness of preventive behaviors and general health for the migrant population.

**Regional Medical Center at Lubec**, Maine uses CHWs to promote the health of the community. The CHW program focuses on providing services to the community's most needy: children, adolescents, and the elderly.

**Syracuse Community Health Center's Comprehensive Medicaid Case Management** program provides case-management services to high-risk pregnant women and women with infants. Its **AmeriCorps Community HealthCorps** members: work on projects related to patient services; educate patients about the importance of preventive primary care and how to use a managed care system; and collectively work on community health education and awareness projects.

**West Alabama Health Services** in Eutaw, Alabama operates the **Home Visitor** program which provides community-based home visits by CHWs that: 1) provide support to pregnant women through the perinatal period; 2) ensure that appropriate care provided for newborns; 3) teach the mother appropriate parenting skills; 4) ensure communication between the home and health provider; and 5) assist the provider by evaluating the home situation of at-risk patients.

## FINDINGS

Although each program has been tailored to meet the unique needs of its service community, many programs have experienced similar issues and have utilized various methods of problem solving.

**Integrating Services into Primary Care Provided by the Health Center.** Some of the sites have integrated CHW services directly into the center's primary care operations, often to improve the patients' experiences there. Other programs have chosen to keep CHWs' activities largely separate from the primary care activities of the health center.

**Demographics.** Most CHWs in the study sites are members of the community in which they serve. Most are long-term residents who are well known in the community. CHWs racially and ethnically reflect the communities they serve. In most programs, female CHWs predominate. The age range of CHWs varies as do educational levels.

**Recruitment.** Health centers recruit CHW in several ways: 1) through newspaper advertisements, distributing recruitment materials at local high schools, colleges or community events; 2) through the center's personnel office; and 3) through word-of-mouth. Programs have learned that good CHWs are not always the most outspoken. Shy and reticent CHWs are often considered trustworthy and emerge from the program as confident and loquacious.

**Length of Service.** In general, most CHWs studied are expected to work at or near full-time (35-40 hours per week). Several of the programs have enjoyed low turnover rates. In

example, From October 1996 to February 1997, **AmeriCorps** members in Syracuse contacted 1,137 users of the health center's urgent care center and scheduled 595 appointments; contacted 2,669 patients who visited the emergency room and scheduled 882 appointments; and sent 342 cards to patients reminding them of an upcoming visit.

**Use of Services:** CHW efforts in this area focus on assisting patients to properly use the health care system. CHWs encourage appropriate immunization levels, provide translation services for non-English speaking clients to assist them in navigating the health system, and encourage patients to take advantage of breast and cervical cancer screenings. Several focus on helping pregnant women seek early prenatal care and follow up on care received by newborns. In 1996, 74 percent of home visited patients in West Alabama had children who completed the 12-month schedule of immunizations versus 63 percent of non-home visited patients.

**Patient Knowledge/Behavior:** Most programs direct their energies in this category to conducting health education sessions. CHWs in nearly all programs conducted education sessions on virtually any subject ranging from proper hygiene, to how to correctly hold and feed an infant and proper nutrition; and how to tackle complicated and sensitive issues such as sexuality and proper contraceptive use, domestic violence and substance abuse. The **AmeriCorps** program in **Lubec**, Maine conducts extensive health education activities: from September 1995 - 1996, the CHWs were responsible for airing 11 health education call-in shows on the local public access channel and wrote 159 articles which were published in local newspapers.

## **NEXT STEPS**

Since this study was designed to be exploratory in nature as to the uses, roles, and outcomes demonstrable from CHW programs nationwide, it necessarily cast a wide net resulting in an understanding the broad range of CHW programs. The study's results point the way to the next steps evaluation research concerning CHWs. We suggest that BPHC (perhaps in conjunction with the Maternal and Child Health Bureau, the **Office** of Rural Health, and others who have an interest in CHW programs) conduct studies that concentrate on more homogeneous groupings of CHW programs. Specifically, such studies could focus on one or more of the following groupings:

**Program Focus: Community 'Versus Clinical:** Future studies could assess whether community- or clinically- focuses CHW programs are more effective in serving the community's needs.

**CHW Functions:** The second way to narrow the focus of future studies would be to concentrate on specific CHW functions. As this study demonstrated, CHWs take on a wide variety of functions; follow-up studies can be more narrowly focused on one or more of these functions, such as programs in which CHWs perform health education.

**CHW Program Target Groups:** A third way CHW programs can be evaluated is based upon the vulnerable populations they attempt to serve. Future research could isolate one target population group (e.g., prenatal patients) and study various programs designed to address the

contrast the AmeriCorps program was designed for one to two years' service. In some sites AmeriCorps members and other **CHWs** have accepted permanent positions in the health center.

**Training.** At all seven sites, **CHWs** undergo comprehensive training programs before they assume their job responsibilities. Most often, new **CHWs** learn by shadowing an experienced **CHW**.

**Supervision.** Some programs experienced challenges in the area of supervision, which especially occurred in a program's infancy. Problems particularly arose in programs that did not involve supervisors early in program planning and **CHW** selection. These difficulties diminished when programs involved supervisors in subsequent years.

Another supervisory issue arose from a site's decision to recruit more local and, in some cases, less skilled individuals. Supervision is often important because some **CHWs** have never worked in a professional atmosphere and need to learn a work ethic and skills.

**Cost:** The cost of running **CHW** programs varied greatly. The costs (included salary, benefits, supervision, administration and overhead) ranged from \$9,104 per **CHW** per year to \$64,866. Cost **CHWs** at sites with AmeriCorps programs ranged from \$14,405 to \$16,050 per member. This cost does not include the educational allowance of **\$4,725** per: full-time AmeriCorps member per year (\$2,363 per part-time member) received upon completion of service.

**Funding the Program:** Since creative financing can keep a successful program alive, policy makers and program administrators should recognize the need for alternative, non-medical funding streams for **CHW** programs. The study sites were diligent and imaginative in tapping private and public funding streams but this is a constant battle.

**Recordkeeping/Data Collection.** Programs generally maintain adequate records to produce descriptive data on their activities. Producing data that sheds light on the outcomes of the **CHW** programs is a greater challenge. Because programs have in the past been required only to provide process information, less emphasis has been placed on providing outcome data that **will** show the effects of a specific intervention.

## **PROGRAM IMPACT**

**In** general, programs have had a beneficial impact on patients' access to services, proper use of services and on patients' knowledge and behavior.

**Access:** **In** general, the sites were effective in assessing clients needs and making referrals to services. Most programs had **CHWs** actively involved in case finding and case management in the community. Other programs were actively involved in providing services to the community that were previously unavailable or limited (adult day care, child day care and homemaking services). Some programs utilized **CHWs'** time to ensure patients received needed services by making reminder calls to patients with appointments, or re-scheduling missed appointments. For

needs of that group. Assessments could be made to “determine the best practices and lessons learned by the participants in delivering services to the target population.

**Mixing and Matching:** Using the above categories, BPHC could select a combination of the three. For example, its research could study clinically-focused CHWs providing home visits to perinatal patients. Alternatively, the research could be broadened somewhat either by expanding the focus (i.e., community-focused and clinically-focused), the functions (e.g., home visiting and care management), or the vulnerable populations. Thus these categories allow the Bureau to mix and match its studies to meet its evaluation needs.

### **BPHC Leadership in Information Systems**

Better measurement of the impacts of CHW programs will depend upon improved data systems. Many, if not most, of the health centers are currently upgrading their information systems, usually in response to the increased demands of funders (e.g., the Bureau’s Uniform Data System) or of managed care. In most cases, they are including better tracking of clinical information through automated systems.

Although few health centers are making such improvements, and including CHW services in the automated systems, they could be encouraged to do so. In **particular**, it would be **helpful** if:

- Common patient identifiers were used on all documentation, including the CHW forms and logs.
- CHWs completed encounter forms that could be entered in the same data base as other encounters. This would allow tracking of whether a CHW intervention affected future access and appropriate use of services. For example, outside of special labor-intensive studies, there is currently no way of measuring whether a phone call to an emergency room patient results in future kept primary care appointments. Such measurements would be far easier if they were on the same system.
- Referrals outside the center’s own services (e.g., for substance-abuse treatment) were carried on the same data base, rather than, as now, on separate paper-based systems.

We strongly recommend that BPHC encourage these developments, so that the next round of CHW studies produces more and stronger outcome information.



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## IMPACT OF COMMUNITY HEALTH WORKERS ON ACCESS, USE OF SERVICES AND PATIENT KNOWLEDGE/BEHAVIOR

Community Health Workers (CHWs) have been used in health centers for the last several decades in a variety of capacities. Although they are known by various names (e.g., community health advisors, community outreach workers, lay health workers, *promotoras*) their functions are essentially the same. A CHW has been defined as a trusted and respected community member who provides informal community-based health-related services and who establishes vital links between community-based health providers and persons in the community.<sup>1</sup> See Appendix A, Annotated Bibliography.

In recent years programs funded by the Bureau of Primary Health Care (BPHC) have increased their use of CHWs to augment and complement the care patients already receive from medical and social service staff members, as well as to help link the community with the providers. To date, the use of CHWs and the services they provide have not been extensively studied. To better understand the use of CHWs in its funded programs, the BPHC initiated this study to evaluate a small sample of organizations using CHWs. The evaluation has three purposes: 1) to inform BPHC on how its programs use CHWs, who they are, what they can contribute, how they are managed. (As patterns emerge, they can be used to make project, program and policy decisions at the local and national levels); 2) to determine the outcomes of using CHWs on patients' access to services, proper use of services and on patient knowledge and behavior; and 3) to set the stage and provide background for further studies on CHWs.

### METHODS

The study had a small sample size, so the selection of sites required serious consideration of trade-offs between intensive learning about specific approaches in using CHWs versus the generalizability of the findings. Since we were charged with developing a definition of CHWs,

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<sup>1</sup> *Community Health Advisors: Models, Research, and Practice: Volume I, Centers for Disease Control and Prevention, September 1994, Preface.*

and what types of work they do, we opted to look **more broadly** at programs using these workers, the issues that commonly affect them, and the lessons they have learned along the way.

We used a two-step process in reaching our recommendations for the sites. First, we utilized the Project Officer's list of approximately 60 BPHC-funded programs known to be using **CHWs**. This list included the following types of health centers: Community Health Centers (urban, rural, border); Migrant Health Centers; Health Care for the Homeless Programs; Public Housing Primary Care Programs; and Ryan White Early Intervention Services Programs. This list was compiled as a result of the Bureau's request for information about programs using **CHWs**. Therefore, the study sample is a purposive sample, and not random, since the responses received by the BPHC may not have reflected the universe of programs using **CHWs**, rather only those that replied to the request or were otherwise identified by program, regional and central **office** staff. We narrowed this initial list of approximately 60 programs to 30 by stratifying the programs based on their geographic location; whether the program is urban, rural or border, the populations served; and the size of the health center (number of users served).

Second, we conducted telephone interviews with the remaining 30 programs to determine the feasibility of including them in our study. We queried these sites about two substantive areas: 1) the type and generalizability of their program model (the objectives of their program, funding sources for the program, **length** of time using CHW; populations targeted and services provided by the **CHWs**); and 2) the availability and quality of data regarding CHW program outcomes. Specifically we inquired about the health center's patient registration system, patient encounter forms, if the **CHWs** keep a log of their activities; if there are forms created especially for the CHW program; and if case-management logs and records are maintained. We hoped to identify centers that could link **CHW** activities with the other medical and non-medical activities of the health center.

After conducting the telephone interviews we **profiled** 14 of the centers and recommended seven for site visits and seven as back-ups if the selected sites should not be able to participate. The seven selected sites are:

**Alameda County Health Care for the Homeless Program** (Alameda) operates an **outreach program** staffed by **CHWs** to carry out case-management activities for homeless people of Alameda County, California. Interface with **CHWs** ensures that clients receive culturally sensitive, community-based health services and establishes links between the homeless and providers. The range of CHW activities is broad and varied depending on the needs of the client: **CHWs** conduct outreach activities; provide **case-management** services; educate clients on public assistance programs; serve as patient advocates and directly facilitate client access to services; and make regular visits to shelters and to health care delivery sites.

**Brownsville Community Health Center's** (Brownsville) CHW program is called **Mano A Mano** (Hand-in-Hand). It uses individuals from this U.S./Mexico border community called *promotorus* (health promoters). *Promotorus* conduct home visits to families in the community (who are not necessarily the health center's patients) and are involved in identifying pregnant women and helping them gain access to prenatal care; educating the community on a comprehensive array of health conditions such as diabetes, tuberculosis, cancer, HIV/AIDS, etc.; and referring clients to services available in the community. The program operates on both sides of the border.

**Logan Heights Family Health Center** (Logan Heights) located in San Diego, California, has two CHW programs included in this study. The first, **Hablado Claro** (Plain Talk), focuses on the protection of sexually active youth through parental organization and education. The project engages the community's adult residents as they learn to communicate with their children and teens about **sexuality**, anatomy and physiology, HIV/AIDS, and STDS. Community Core Group members function as "askable" adults who communicate effectively with adolescents around sensitive matters. Some of these Core Group members have obtained additional training and function as *promoforas* for the program. The second CHW program, **Smart Teens Educating Peers** (STEP) is designed to help adolescent males recognize their responsibilities concerning their sexuality, as well as to make responsible choices about reproductive health issues. Teen peer counselors organize and present educational information to teens in group settings or on a one-to-one basis. They also sponsor **social** and sports events.

**Northwest Michigan Health Service's** (Northwest Michigan) CHW program, the **Camp Health Aide Program** (CHAP) provides community health care among migrant farmworkers to promote the early enrollment of women into prenatal care; improve the health maintenance of migrant families; and increase awareness of preventive behaviors and general health for the migrant population. The program trains migrant farmworkers to be health-resource persons in the migrant camps where they live and work, thereby reducing some of the barriers that typically exist between community members and the health professionals. The Camp Health Aides function as observers, resource guides, advisors, health educators, lay health workers, and translators in addition to their regular full-time farmworker jobs.

**Regional Medical Center at Lubec** (Lubec) uses **AmeriCorps Community HealthCorps** members<sup>2</sup> as CHWs to promote the health of the community. The AmeriCorps CHWs are involved with such diverse activities as providing child care, conducting community health education, homemaking, teaching community fitness, conducting case-management and providing elder day care. The AmeriCorps CHW program focuses on providing services to the most needy: children, adolescents, and the elderly.

**Syracuse Community Health Center** (Syracuse) has two CHW programs; the first uses **AmeriCorps Community HealthCorps** members to educate patients about the importance of preventive primary care and how to use a managed care system. Additionally, AmeriCorps members work in various departments throughout the health center on projects related to patient services, including placing calls to patients reminding them of an upcoming appointment; attempting to book appointments for patients who have not visited the health center in a while; rescheduling missed appointments; and calling patients from the center's urgent care center to link them to primary care. They also work collectively on community health education and awareness projects. The second CHW program, the **Comprehensive Medicaid Case-management (CMCM)** program provides case-management services to pregnant women and women with children under the age of one who are at risk for infant mortality. CMCM workers and **AmeriCorps** members perform intake and screening of clients; assessment of basic needs: environmental, family structure, psychological/emotional, education/employment, medical services, etc.; case-management planning; coordination of case-management services; crisis intervention; monitoring and follow-up; counseling and exit planning.

**West Alabama Health Services** (West Alabama) in Eutaw, Alabama operates the **Home Visitor** program which provides community-based home visits by indigenous lay persons that: 1) provide support to pregnant women through the **perinatal** period; 2) ensure that appropriate care is provided to newborn infants; 3) teach the mother appropriate parenting skills; 4) ensure communication between the home environment and health provider; and 5) assist the health care provider by evaluating the home situation of at-risk patients. The Home Visitor program uses both outreach **workers** (health center employees) and AmeriCorps Community **Health Corps** members.

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<sup>2</sup> A national program through the National Association of Community Health Centers.

**EXHIBIT 1**  
**STUDY SITES**

SITE	GEOGRAPHIC LOCATION	SIZE	URBAN, RURAL, BORDER	POPULATION SERVED
Alameda County Health Care for the Homeless Program, <b>Oakland, California</b>	west	medium	urban	homeless
Brownsville Community Health Center, <b>Brownsville, Texas</b>	southwest	large	small urban border	mainly Hispanics
Logan Heights Family Health Center, <b>San Diego, California</b>	west	large	urban border	multiple populations, many Hispanics
Northwest Michigan Health Services, <b>Shelby, Michigan</b>	<b>midwest</b>	small	rural	migrant farmworkers and their families (mostly Hispanics)
Regional Medical Center at Lubec, <b>Lubec, Maine</b>	northeast	small	<b>rural</b>	mostly non-Hispanic whites
Syracuse Community Health Center, <b>Syracuse, New York</b>	northeast	large	<b>urban</b>	mainly African-Americans, increasing Hispanics
West Alabama Health Services, <b>Eutaw, Alabama</b>	south	large	Rural	mainly African-Americans

After selecting the study sites and obtaining their permission, we conducted **intensive** two-to-three-day visits of each health center. Using a flexible interview guide that included general questions and questions tailored to the specific sites (see Appendix H), the study team met with the center’s executive director, chief financial officer, CHW program administrators, **CHW** supervisors, representatives of local social service agencies who interact with the CHW program, **CHWs**, and conducted focus groups with health center clients impacted by the CHW program. We also thoroughly reviewed the CHW program records and identified outcome **data**<sup>3</sup>.

**FINDINGS**

Although each program has been tailored to meet the unique needs of its service community, many programs have experienced similar issues and have utilized various methods of problem solving. The following findings are presented according to categories common to all programs.

<sup>3</sup> *To obtain a clearer understanding of how the CHWs spend their time each day, in four centers we asked them to perform a time study in which they documented which activity they were engaged in every hour of every shift for a period of one week. Unfortunately, the time-studies did not prove to be useful primarily because of differing interpretations of terms like “outreach” and the difficulty of completing forms in the field.*

## **Integrating Services into Primary Care Provided by the Health Center**

*Some of the sites have integrated CHW services directly into the center's primary care operations*, often to improve the patients' experiences there. For example, CHWs in Syracuse place calls to patients reminding them of an upcoming appointment; attempt to book appointments for patients who have not recently visited the health center; reschedule missed appointments and call patients from the center's urgent care center to link them to primary care. *Other programs have chosen to keep CHWs' activities largely separate from the primary care activities of the health center.* Although CHWs in Lubec work in health center departments such as health education or the adult or child day care centers, they do not generally work in clinical areas of the health center. In some areas clinicians are still reluctant to integrate CHWs into their practices. They may refer certain patients to a CHW (e.g., those needing assistance in applying for Medicaid), but often no formal mechanism exists for feedback to the referring clinician. Although currently CHW notes are not included in patient files in West Alabama and Brownsville, both health centers are considering including copies of their reports in patients' medical records, since these reports are likely to give clinicians further insight into the patients' circumstances.

### **Demographics**

In general, *most CHWs in the study sites are members of the community in which they serve.* Most are long-term residents who are well known in the community. Only one site, Lubec, has sought some CHWs from outside the service area. due to a lack of local, available, qualified applicants. Local candidates are difficult to identify, in part because the service area is very isolated: Washington County (the county in which the health center is located) is approximately 2.5 times the size of Rhode Island, yet its population is only 35,000. Lubec has found that including out-of-town (or out-of-state) CHWs in the group along side CHWs from the community has benefited the local CHWs by introducing them to new perspectives and experiences.

**CHWs racially and ethnically reflect the communities they serve.** For example, of the seven CHWs in Alameda, three are minorities (one African-American, one Hispanic, and one Asian) while the rest are non-Hispanic white; the **promotoras** in Brownsville are all Hispanic (primarily of Mexican descent) and all speak Spanish; in Syracuse, five of the 11 CMCM workers are African-American, three are Hispanic, one is Native American and two are non-Hispanic white.

**Female CHWs predominate:** With the exception of the Logan Heights STEP program, women outnumber men in all CHW programs: all current CHWs in Brownsville, Northwest Michigan, Syracuse's CMCM program and West Alabama's programs are female. Women outnumber men by a two-to-one margin in Lubec and Syracuse's AmeriCorps programs; four of the seven Alameda CHWs are female. Many of the CHWs are single mothers. Some of the programs have attempted to recruit male CHWs, (and some have been successful on a small scale) but in some communities and cultures women are seen as the families' health decision makers, and men are uncomfortable discussing health issues.

**The age range of CHWs varies greatly** in most of the programs. West Alabama's Outreach Workers range in age from 38-72; their AmeriCorps members range from 17-42. Syracuse's AmeriCorps members also range from 17-40; the average age of the CMCM workers is 40. Last year, nine of the 20 AmeriCorps members who served the majority of the year were under age 20, ten were in their 30s and the oldest was over 50.

In some cases the CHWs' age is relevant to the program's effectiveness. Logan Height's STEP program uses youth counselors who supply accurate information to their peers. In West Alabama administrators originally thought they should recruit older women as Home Visitors who could fill a "grandmother" role for pregnant women. A year after implementing this recruiting strategy, they learned that some young pregnant women preferred having a younger Home Visitor because they felt they had more in common with them. In response, the program now recruits Home Visitors of varying ages, and makes appropriate matches according to client preference.

*Educational levels of CHWs also vary.* In the Brownsville and Northwest Michigan programs the majority of CHWs do not have high school degrees; in other programs such as West Alabama and Lubec every CHW has earned at least a high school diploma and some have either limited college experience or have received their college degree.

## Recruitment

Recruitment of CHWs occurs in several ways in the health centers we studied. The first is a traditional approach: both Syracuse and West Alabama recruit their AmeriCorps members through year-round advertisements *in local newspapers, distributing program recruitment materials at local high schools or local colleges or at local community events.* Lubec has also advertised vacant positions in the local newspaper, at schools and at the community center. Many local residents do not have the skills required to fill some of the positions (e.g., experience with using video equipment or word-processing skills). Other positions requiring **less technical** skills (adult day care and child care provider) are difficult to fill because they are emotionally taxing and require a high degree of compassion and patience. The program director has culled the national AmeriCorps application pool to find qualified and interested applicants. The program director is also instituting a new requirement of this year's group: *before their term of service ends, all current members will be responsible for promoting and marketing the AmeriCorps program, and recruiting at least one applicant for the Lubec or national AmeriCorps program.*

*Programs also recruit CHW.. through the health center's personnel office.* West Alabama and Syracuse. post the Outreach Worker and CMCM positions through their human resource or personnel offices because the positions are full-time staff positions. Likewise, the CHW positions in Alameda are civil service jobs and are therefore subject to county hiring rules; although the rules can frustrate program managers, the civil service status (and pay level) increases the attractiveness of the jobs themselves.

*The third method of recruiting is through word of mouth.* In Brownsville program administrators ask church and community groups to identify individuals who are considered leaders and role models, who can communicate well with their neighbors, and who are not afraid to interact with women and their families. At Logan Heights, members of the Community Core Group conduct door to door recruiting and education campaigns for the *Hablando Claro* program. Similarly, the Camp Health Aide program coordinator at Northwest Michigan goes door-to-door to ask migrants whom they regard as a leader in the camp. Because the coordinator works as a receptionist at the health center during the winter, she also has an opportunity to recruit patients that she has come to know.

*Programs have learned that good CHWs are not always the most outspoken.* One of the *promotoras* in Brownsville, while considered trustworthy and a leader in her community, was shy and reticent when she joined the *Mano A Mano* program; however, since joining she has emerged as confident and loquacious, a fact that has surprised the program's coordinators and herself. In Logan Heights, many of the *promotorus* reported that they were shy and unsure of themselves before *Hablando Claro came*, but now they believe wholeheartedly in the program and in their own efforts.

*Some programs have adjusted their criteria for recruitment over time.* For example, at Logan Heights, exemplary role-model teenagers were originally recruited for the STEP program. However, the program administrators detected that teens in the service population were not relating very well to the exemplary teenagers. The latest group of **CHWs** in the STEP program are teens who have had brushes' with the law in the past, and who the program managers believe could recover their lives and be examples of self-determining and renewal. Syracuse has also changed its recruiting strategy: in the first year, the program recruited applicants who had already completed a bachelor's degree; however, many were not from the health center's service area. During the second year, administrators made the decision to recruit more people from the community, although it generally meant that they recruited individuals with lower skill levels.

## **Length of Service**

In general, most *CHWs studied are expected to work at or near full-time* (35-40 hours per week), with the exception of Northwest Michigan's Camp Health Aides who are expected to work 20 hours per week. Several of the programs have enjoyed low turnover rates. A CHW in Alameda has been employed for nine years; all the **CHWs** in Brownsville have been with the program since 1993.

The AmeriCorps program was designed limit the members' length of service from one to two years. Full-time AmeriCorps members are expected to serve a total of 1,700 hours to fulfill their commitment (part-time members serve 900 hours). To do so, most AmeriCorps members work approximately 40 hours per week for approximately 10 - 11 months (part-time members work 20 hours per week). Some AmeriCorps members have returned to serve a second year in each of the AmeriCorps CHW programs. In some sites members who have completed their term of service have accepted permanent positions in the health center.

## **Training**

*At the seven sites, CHWs undergo comprehensive training programs before they assume their job responsibilities.* Most often, new **CHWs** learn by shadowing an experienced **CHW**. In Alameda, training for **CHWs** is done prior to going into the field, and new **CHWs** receive a short orientation in issues facing the homeless, confidentiality procedures and issues, and in triage and intake methods. Instruction is also given in the other services available to the homeless, and **CHWs** have the opportunity to visit program providers. Additional training is acquired by shadowing experienced **CHWs**. In all sites, regular ongoing training is conducted on a weekly or monthly basis.

Camp Health Aides in Northwest Michigan participate in a training that includes 20 hours of classes spread over two weeks. They are instructed in basic health and prevention information, first aid, and how to take patients' vital signs. **CHWs** also meet weekly for ongoing

training and discussions of their successes and **challenges**. In Lubec, AmeriCorps members receiving training in such diverse topics as writing for the media, sign language, and shellfish restoration. All **AmeriCorps** members in Lubec are trained in Cardiopulmonary Resuscitation (CPR), Occupational Safety and Health Administration (OSHA), and first aid. In previous years, the bulk of training has waited until the annual group training by the National Association of Community Health Centers (NACHC) and the state AmeriCorps groups. However, because the program coordinator and AmeriCorps members' supervisors thought the delay weakened the members' sense of team, they have changed the program's third year to perform training in the first week. The first training sessions were dedicated to orientation, team-building, and **problem-solving** activities. The AmeriCorps members came to know each other quickly and were immediately excited about the program.

## **Supervision**

*Some programs experienced challenges in the area of supervision, which especially occurred in a program's infancy.* In Syracuse, for example, AmeriCorps members work in departments and are also expected to complete monthly community health projects. During Year One, some departmental supervisors had not been closely involved in program planning and development. This resulted in some supervisors not understanding clearly their own roles and that of the members. Other staff members did not understand the mission of the program or the **CHWs'** service requirements and questioned why the AmeriCorps **CHWs** left the department to work on community activities. Some **CHWs** experienced difficulty in working with staff members who naturally expected the **CHWs** to serve as support staff. The program coordinator worked to improve communication between the CHW program and the departments and to ensure that the assignments given to **CHWs** were meaningful. Supervisors had more involvement in program planning and development for Year Two, which appears to have strengthened the relationships.

Another supervisory issue arose from Syracuse's decision to recruit more local and, in some cases, less skilled individuals. Some **CHWs** had never worked in a professional

atmosphere before **and** had difficulty acclimating to ~~the~~ culture, learning a work ethic and being productive at their jobs. Some members had high absenteeism rates, some wore inappropriate clothing, and some did not know how to speak in a professional manner to patients on the telephone. Some supervisors reported that it took members four months to work effectively in the department. **In** some cases, responsibility for supervision of the members was shifted from the supervisor to the AmeriCorps program coordinator to assure that the **CHWs** received adequate guidance.

## **Cost**

*The cost of running CHW programs varied greatly. The costs we examined included salary, benefits, supervision, administration and overhead. They ranged from \$9,104 in Northwest Michigan (if annualized) per CHW to \$64,866 per FTE CHW in Alameda County<sup>4</sup>. It costs Brownsville approximately \$23,800 per VISTA-funded *promotora*, \$24,313 per CMCM worker in Syracuse, and \$21,776 per Outreach Worker in West Alabama. (It is not possible to determine the cost of a CHW at Logan Heights because none are considered employees of the center; however, the total cost of managing the program is \$157,782 per year.) Finally, it costs sites with AmeriCorps programs \$14,405 in **Lubec**, \$14,697 in West Alabama, and \$16,050 in Syracuse per member. This cost does not include the educational allowance of \$4,725 per full-time AmeriCorps member per year (\$2,363 per part-time member) received upon completion of service.*

## **Recordkeeping/Data Collection**

*Programs generally maintain adequate records to produce descriptive data on their activities. For example, Alameda can easily determine the number of homeless clients seen by its **CHWs**, the types of problems their clients had, and what action **CHWs** took; it is equally easy*

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<sup>4</sup> *Alameda County CHW salaries are significantly higher than other programs largely because the salary scale for CHWs in the Alameda County civil-service system are much higher than in most community-based organizations: fringe benefits are also broader. Compensation also reflects the high cost of living in the Bay area. (Note that the \$64,866 includes not only salary and fringe benefits but also supervision administration and overhead)*

to provide information on the number of **pregnant women** visited by West Alabama's Home Visitors, the number of visits made to each woman, and the number of referrals given to each woman.

Producing data that sheds light on the outcomes of the CHW programs is a greater challenge. Program managers in general (not just those managing CHW programs) have long been required only to provide process information (e.g., the number of encounters, the number of users, number of referrals made). Less emphasis has been placed on providing outcome data that will show the effects of a specific intervention (e.g., the number of pap smears given, the number of abnormal tests followed up on, and the number of women receiving treatment for cervical cancer). Program data systems, therefore, have generally been designed to produce process information rather than outcome data.

Increasingly, funding from government and private sources requires that programs be able to measure the impact of their interventions. These requirements challenge already **resource-**strapped community-based organizations who may not have the funds to invest in new information management systems or who may lack the technical expertise needed to reengineer existing programs to collect outcomes data.

For example, in Alameda it is extremely challenging to produce outcomes data on **CHWs'** interventions because existing systems are not equipped to do so. Alameda contracts with outside agencies to provide most medical services. None of the manual tracking systems in place among service providers are the same. Only reviewing client charts at all contracting organizations would indicate the outcome of CHW contacts. This task is further complicated by the contracting organizations not using a single patient identifier and the reluctance of homeless persons to divulge personal information such as Social Security numbers. In West Alabama, outcomes data are equally challenging to gather. Local social service departments lack sophisticated management information systems to **track** services received by clients. Additionally, the service agencies receive no financial incentive to provide organizations like West Alabama with information about the services its patients receive since the health center

does not pay for the social services. In addition, two important computer systems used by the CHWs themselves are not compatible. Furthermore, because West Alabama has had an active outreach program for many years, obtaining pre-program data to compare with post-program data is difficult. Similar systems issues arose in all sites we studied.

## OUTCOMES

*Descriptive data on the CHW programs and CHWs' activities are valuable. Programs* have successfully recorded information that details CHWs' activities in the communities and health centers they serve. Data reported here are encouraging in that they lay the groundwork for developing systems that will provide more rigorous outcomes data.

### Access

In general, the sites were effective in assessing clients needs and making referrals to services. Exhibit 2 illustrates that most programs had CHWs actively involved in case finding and case-management in the community. Brownsville's *promotoras*, West Alabama's Home Visitors, Syracuse's CCM programs and Northwest Michigan's Camp Health Aides all spend considerable time in these activities. Other programs such as Lubec were actively involved in providing services to the community that were previously unavailable or limited (adult day care, child day care and homemaking services). Some programs utilized CHWs' time to ensure patients received needed services by making reminder calls to patients with appointments, or re-scheduling missed appointments.

Some programs have documented their efforts to increase patients' access to care. As a result of its AmeriCorps program, the number of users in Syracuse's family practice specialty increased by 49.5 percent (3,408 in 1996 versus 2,280 in 1995). From October 1996 to February 1997 members contacted 1,137 users of the health center's urgent care center and scheduled 595 appointments; contacted 2,669 patients who visited the emergency room and scheduled 882 appointments; and sent 342 cards to patients reminding them of an upcoming appointment.

Syracuse's CCM program has also demonstrated success. In fiscal year 1996 program administrators set a goal to provide postpartum care for 87 percent of Syracuse's postpartum patients within six to eight weeks of delivery by December 31, 1996. As of October 1996, 88 percent of postpartum patients has returned within that time frame. The program may have also had an impact on infant mortality figures: Syracuse's incidence of low-birth-weight births for 1996 was 7.9 percent, a decrease from nine percent in 1995.

Other programs have also demonstrated an ability to increase patients' access. Camp Health Aides in Northwest Michigan made 687 referrals for medical, dental and social services in 1996 to migrants living in camps. In Logan Heights, the *Hablando Claro promotoras* and the **STEP** teens have successfully argued for adding a day to the health center's teen clinic and Saturday hours to the main clinic. STEP teen peer counselors distributed 659 referral cards to teen and family planning clinics by March 1997.

### **Use of Services**

CHW efforts in this area focus on assisting patients to properly use the health care system. **CHWs** also encourage appropriate immunization of children in Northwest Michigan, West Alabama and Syracuse. *Promotoras* in Brownsville and Camp Health Aides in Northwest Michigan provide translation services for non-English speaking clients to assist them in navigating the health system and programs in Alameda and **Lubec** encourage patients to take advantage of breast and cervical cancer screenings. Several programs (Northwest Michigan, Brownsville, Syracuse's CCM program and West Alabama) focus on helping pregnant women seek early prenatal care and follow up on care received by newborns.

Specifically, West Alabama and Syracuse have documented their extensive efforts to promote proper use of health care services. West Alabama's **AmeriCorps** members made **1,600+** reminder phone calls from January - March 1997 which resulted in approximately 1,230 kept appointments. Members also reviewed 675 pediatric charts to ensure proper immunization

levels. Home Visitors in West Alabama also promote proper health care service utilization. In 1996, 74 percent of home visited patients had children who completed the 12-month schedule of immunizations vs. 63 percent of non-home visited patients. In the same year, 63 percent (269) of pregnant women seeking prenatal care at the health center did so during the first trimester; 33 percent (128) sought prenatal care in the second trimester; and 7 percent (32) began receiving prenatal care in the third trimester. Additionally, 89 percent (356) of patients receiving prenatal care gave birth to infants >2500 grams; 9 percent (39) had low birthweight babies (1501-2500 grams); and 2 percent (7) had very low birth weight babies (<1500 grams).

Syracuse has also recorded its programs' activities designed to assist patients in properly using the health care system. Between October 1996 and February 1997 AmeriCorps Members contacted 395 of 940 dental patients to schedule appointments; reviewed patient charts and contacted 908 users to remind them about upcoming appointments; determined 98 charts were in need of yearly pap and/or cervical exam; scheduled 1,006 pediatric patients for appointments; and determined the need for lead screening and scheduled 100 appointments. From 1995-1996 AmeriCorps members linked 2,422 patients to other health and social services. Their efforts contributed to a 14.5 percent decline in the number of users in the health center's urgent care facility in 1996 (from 31,707 in 1995 to 27,112 in 1996). The CMC program has also had an impact. In 1996 the show rate for follow-up prenatal appointments was 73 percent, up from 70 percent in 1995; and the newborn follow-up rate for 1996 was 98 percent, up from 95 percent in 1995. As of January 1996, 88 percent of postpartum patients returned for care within six - eight weeks of delivery, an increase from 80 percent in 1995.

### **Patient Knowledge/Behavior**

Most programs direct their energies in this category to conducting health education sessions. CHWs in nearly all studied programs conducted education sessions on virtually any subject. CHWs can discuss topics as basic as proper hygiene, how to correctly hold and feed an infant and proper nutrition; and how to tackle complicated and sensitive issues such as sexuality and proper contraceptive use, domestic violence and substance abuse. Other issues commonly

addressed with clients are smoking cessation, the **importance** of breast feeding, and the reduction of high-risk behaviors. Other programs devote CHW time to writing press releases for local newspapers and newsletters or creating health education videos that air on the local public access channel.

Several programs have documented their extensive health education activities. For example, **Lubec** from September 1995 - 1996 the **CHWs** were responsible for airing 11 health education call-in shows on the local public access channel and wrote 159 articles which were published in local newspapers; and from October 1996 through February 1997 **CHWs** produced 15 health education videos. In Northwest Michigan Camp Health Aides had 1,032 health education encounters and conducted 44 group education sessions to 883 camp residents in 1996.

Logan Heights planned to conduct a follow-up study to the community mapping done in 1993 that surveyed 610 adults and 409 adolescents on their knowledge, attitudes, **behaviors** and **beliefs** pertaining to adolescent sexuality. The survey, based on the Centers for Disease Control and Prevention's KABB survey was planned to be administered in the fall of 1997; however a lack of resources has prevented the program from conducting the study for the time being. When administered it will query every tenth household and contain questions on demographics, teen sexuality, substance use, stress, depression, health problems, domestic violence, and community problems.

Exhibit 2 summarizes the descriptive data from the seven study sites. More in-depth data can be found in the individual case studies that appear in Appendixes B-H.

**EXHIBIT 2**  
**DESCRIPTIVE OUTCOMES OF SEVEN STUDY SITES**

SITE	ACCESS TO CARE	USE OF SERVICES	PATIENT BEHAVIOR/KNOWLEDGE
Alameda	<p>In 1996 Community <b>Health Workers</b>:</p> <ul style="list-style-type: none"> <li>• Completed 5,519 <b>case-management</b> intakes on homeless <b>people</b></li> <li>• Identified four homeless women later diagnosed with breast cancer</li> <li>• Completed 14 <b>immunization</b> encounters with homeless people (vaccines included: DPT, polio, influenza, Hepatitis B and <b>MMR</b>)</li> </ul>	<p>From 10/94 and 7/96 the TB STOP Team including a CHW and Alameda county public health nurse) placed 2846 <b>TB skin tests</b> to homeless and low/no-income persons and shelter/homeless program staffs in Alameda County. They conducted the following:</p> <p>Screenings and follow-up at shelters/ hotels/ centers:</p> <ul style="list-style-type: none"> <li>• Administered 2217 PPD tests</li> <li>• Read PPD <b>results</b> for 1740 <b>persons</b> (78%)</li> <li>• Referred 142 positive <b>readings</b> for X-ray (8.3%)</li> <li>• <b>Referred</b> 125 PPD positive <b>homeless</b> people for X-rays</li> <li>• <b>Assured</b> 110 completed X-rays (88%) (still looking for <b>15</b>)</li> <li>• Identified 1 case with Class III "active" <b>TB</b></li> <li>• <b>Started</b> 24 people on INH preventive therapy; documented 4 <b>people</b> completed INH therapy</li> </ul> <p><b>TB Stop Team/STD CHW</b> van outings</p> <ul style="list-style-type: none"> <li>• Placed 629 tests</li> <li>• Read 362 <b>results</b> (58%)</li> <li>• Read 44 positive tests (12%)</li> <li>• Successfully <b>followed</b> through on 33 cases</li> <li>• <b>Identified</b> 1 active case</li> </ul>	<p>From 10/94-7/96 the TB/STOP Team conducted 8 educational events/workshops for shelter and <b>referral agencies</b>.</p> <p><b>Anecdotal</b> evidence indicates that over <b>time more</b> homeless people are <b>returning</b> for Safer Sex Kits.</p>
Brownsville	<p>In 1996 <b>promotoras</b> in Brownsville made approximately 1000 home visits per month; and <b>worked</b> with 400 women providing transportation and other support</p> <p>From 1/97 - 10/97 <b>promotoras</b> in Texas and Mexico made 400-500 home visits per month</p>		<p>In 1996 <b>promotoras</b> presented 6-10 classes per month to home visit clients</p> <p>From 1/97-10/97 Brownsville <b>promotoras</b> conducted 18-20 presentations per month; Matamoros <b>promotoras</b> conducted 20-25 per month</p>
Logan Heights	<p>STEP teen <b>peer</b> counselors distributed a total of 659 referral cards for family planning clinics by 3/97.</p> <p><b>Hablado Claro promotoras and the STEP peer counselors</b> have successfully argued for adding a day to the health center's <b>teen</b> clinic and Saturday hours to the main clinic</p>		<p>25-30 young <b>Latino males</b> in the <b>STEP</b> program attend biweekly meetings on a regular basis</p> <p>56 <b>Latino teens</b> attended a Valentine's Day dance <b>sponsored</b> by <b>STEP</b> in 1997</p> <p><b>STEP</b> teen peer <b>counselors</b> made 6 presentations to <b>340</b> adults on <b>adolescents' perspectives</b> on sex as of 3/97</p>
Northwest Michigan	<p>In 1996 Camp Health <b>Aides</b>:</p> <ul style="list-style-type: none"> <li>• Had 1685 encounters with 587 migrants</li> <li>• Had 239 encounters with 20 <b>prenatal</b> clients and 73 with 23 infants &lt;1 year old</li> <li>• Gave advice to <b>118</b> non-migrants</li> <li>• Made 687 referrals to migrants for <b>medical</b>, dentist, social services, etc.</li> <li>• Performed 311 liaison encounters between migrants and health center and various agency staff</li> <li>• Administered tint aid on 402 occasions</li> </ul>	<p>In 1996 Camp Health <b>Aides</b>:</p> <ul style="list-style-type: none"> <li>• <b>Located</b> 30 migrant patients for health center <b>clinical</b> staff</li> <li>• Had 75 translation encounters with Spanish speaking migrants</li> <li>• Had 76 child and infant <b>care encounters</b> (included giving information on ensuring regular infant/well child <b>exams</b>, immunizations and breastfeeding) with migrant <b>children</b></li> </ul>	<p>In 1996 Camp Health <b>Aides</b>:</p> <ul style="list-style-type: none"> <li>• Had 1,032 <b>health education</b> encounters with migrants</li> <li>• Gave 44 group educational <b>session</b> to 883 camp <b>residents</b></li> </ul>

SITE	ACCESS TO CARE	USE OF SERVICES	PATIENT BEHAVIOR/KNOWLEDGE
Lubec	<p>From 9/1/95-9/30/96 AmeriCorps members:</p> <ul style="list-style-type: none"> <li>Opened 2 adult day care centers for up to 12 elderly clients; 5 clients were enrolled</li> <li>Provided homemaker services for 14 elderly clients</li> <li>Enrolled 137 students in DownEast Healthy Kids program who completed 551 visits</li> <li>Enrolled 8 youth in the softball league; 10 in the soccer league; and 50 in basketball</li> <li>Held drug-free dances for 88 teens</li> </ul> <p>From 10/1/96-2/28/97 AmeriCorps members:</p> <ul style="list-style-type: none"> <li>Provided adult day care services to 7 clients</li> <li>Enrolled 128 Lubec students in the fitness center with an average attendance of 98</li> <li>Enrolled 572 students in Project Adventure</li> <li>Enrolled 15 youth into soccer; 94 into basketball; 39 into the after-school program</li> </ul>	<p>From 9/1/95-9/30/96 AmeriCorps members:</p> <ul style="list-style-type: none"> <li>Notified 25 health center patients who qualified for sliding fees; notified a total of 68 patients that their approved sliding fee was expiring</li> <li>Assisted 37 clients with case-management</li> <li>Notified parents with 10-month old infants about free lead poisoning screening</li> <li>Assisted 15 clients at the Breast and Cervical Cancer Prevention clinic</li> </ul> <p>From 10/1/96-2/28/97 AmeriCorps members:</p> <ul style="list-style-type: none"> <li>Added 29 new case-management clients; Provided 231 clients with case-management services</li> <li>Held Breast and Cervical Health Program in which 82 clients participated</li> <li>Provided 37 clients with 195 homemaker visits</li> </ul>	<p>From 9/1/95-9/30/96 AmeriCorps members:</p> <ul style="list-style-type: none"> <li>Conducted 18 OSHA trainings for 358 people</li> <li>Aired 11 health education call-in shows on local public access channel</li> <li>Produced 7 health education videos</li> <li>Gave 12 nutrition presentations at schools</li> <li>Conducted playground safety presentation for PTA</li> <li>Assisted with community blood pressure and cholesterol screenings</li> <li>Wrote 159 articles printed in local newspapers</li> <li>Organized smoking cessation program for 200 students, teachers, and community members</li> </ul> <p>From 10/1/96-2/28/97 AmeriCorps members:</p> <ul style="list-style-type: none"> <li>Created education units for toddlers</li> <li>Presented a nutrition education program for children enrolled in day care</li> <li>Wrote 46 articles for local paper</li> <li>Produced 15 health education videos</li> </ul>
Syracuse	<p>AmeriCorps Members:</p> <ul style="list-style-type: none"> <li>In 19% the number of users in the family practice specialty increased 49.5% (from 2,280 in 1995 to 3,408 in 1996)</li> <li>From 10/1/96 - 2/28/97 members: contacted 1,137 users of the urgent care center and scheduled 595 appointments; contacted 2,669 patients who visited the emergency room and scheduled 882 appointments; and sent 342 reminder letters to patients about upcoming appointments</li> </ul> <p>CMCM:</p> <ul style="list-style-type: none"> <li>As of 10/1/96, 88% of the center's postpartum patients returned for care within 6-8 weeks of delivery, exceeding the 87% goal set for FY 1996</li> <li>The incidence of low-birth weight births for health center users in 1996 was 7.9%. down from 9% in 1995</li> </ul>	<p>AmeriCorps Members:</p> <ul style="list-style-type: none"> <li>Contacted 395 of 940 dental patients to schedule appointments; reviewed patient charts and contacted 908 users and reminded about upcoming appointments: determined 98 charts were in need of yearly pap and/or cervical exam; scheduled 1,006 pediatric patients for appointments; determined the need for lead screening and scheduled 100 appointments between 10/1/96 - 2/2/97</li> <li>In 1996 the number of urgent care users was reduced by 14.5% (from 31,707 in 95 to 27,112 in 1996)</li> <li>From 1995-1996 linked 2,422 patients to other health and social services</li> </ul> <p>CMCM:</p> <ul style="list-style-type: none"> <li>In 1996 the show rate for follow-up prenatal appointments was 73%, up from 70% in 1995</li> <li>As of 1/1/96 88% of postpartum patients returned for care within 6-8 weeks of delivery, an increase from 80% in 1995</li> <li>The newborn follow-up rate for 1996 was 98%. up from 95% in 1995</li> </ul>	<p>From 10/1/96 - 12/31/96, AmeriCorps Members reviewed 120 diabetic patient charts, 100 made visits to the facility, 19 made and kept appointments and 30 were tracked to determine their need for smoking cessation program</p> <p>CMCM :</p> <ul style="list-style-type: none"> <li>Case workers make appointments with nutritional services for all new obstetric Patients</li> <li>The CMCM program added a smoking cessation component to childbirth classes in 1996. and expanded the classes to the gynecological population in 1997</li> </ul>

SITE	ACCESS TO CARE	USE OF SERVICES	PATIENT BEHAVIOR/KNOWLEDGE
West Alabama	From 1/1/96-3/15/96 AmeriCorps CHWs: <ul style="list-style-type: none"> <li>• Followed 104 maternity patients, 45 infants, and 15 post-natal patients in three counties</li> <li>• Followed 256 immunization cases</li> <li>• Cumulatively assisted over 2,175 patients in six counties</li> </ul>	<p>In 1996, 63% (269) of pregnant women used first trimester prenatal care; 33% (128) sought prenatal care in the second trimester, and 7% (32) began receiving prenatal care in the third trimester</p> <p>In 1996, 89% (356) of patients receiving prenatal care gave birth to infants &gt;2500 grams: 9% (39) had low birthweight babies (1501-2500 grams); and 2% (7) had very low birth weight babies (&lt;1500 grams)</p> <p>74% of home visited patients had children who completed the 12-month schedule of immunizations vs. 63% of non-home visited patients</p> <p>From 1/97-3/97 AmeriCorps CHWs made 1,600+ reminder phone calls; approximately 1,230 appointments were kept. Reviewed 675 pediatric charts to ensure proper immunization levels</p>	<p>In 1996, 477 prenatal care users; 390 infants and 391 postpartum care users were enrolled in WIC</p> <p>From 1/97-3/97 AmeriCorps CHWs made 299 home visits to pregnant women and families with children &lt;1 year old</p> <p>Interviews with patients indicates that Home Visitors have taught many women how to care for their infants over time (e.g., how to correctly hold and feed)</p>

## LESSONS LEARNED

The following section contains the valuable lessons the seven study sites have learned throughout their experience in running CHW programs. They are undoubtedly useful to any program hoping to create a CHW program in its own community. The lessons fall into the following categories: program design, recruitment, training, supervision, funding/costs and recordkeeping/data collection.

### Program Design

Programs should balance CHWs' time in the community and in the health center. CHW programs are meant to provide outreach and intervention services in the community; simultaneously, some CHWs also have administrative or departmental responsibilities to the health center. Programs should balance the time CHWs spend on internal tasks to ensure that they have the opportunity to work externally in the community. AmeriCorps members in Syracuse<sup>5</sup> stated that they enjoyed spending more time in the community conducting outreach and education efforts. Program administrators plan to respond by re-adjusting members' work

<sup>5</sup> We cite specific programs in this Lessons Learned section so that readers have a concrete example of the concept. We are not implying that those are the only sites where the lessons have been learned

schedules to allow for maximum time in the **community**. Administrators hope that if members have external community work to look forward to, they may increase their internal departmental productivity. Administrators hope that increased **AmeriCorps** member involvement in the community will elevate the program's profile and increase the likelihood that members serve as role models for at-risk youth.

**CHW programs should involve the community.** Community participation in needs assessments and planning can improve community acceptance and cooperation with a CHW program. It also assures that program goals and objectives are in line with community needs and preferences. Program leaders at Logan Heights have found that involving (and not just consulting) the community at every step in the process is essential.

**Fully integrated systems allow for access to truly comprehensive services.** Programs have found that when **CHWs'** activities are integrated with the health center's clinical operations, patients' needs are less likely to slip through the cracks. West Alabama's Home Visitor program is completely integrated with the health center's systems. The Care Coordinators and Home Visitors are seen as essential components of the health center's clinical operations. Daily interaction among physicians, care coordinators and Home Visitors ensures that patients' needs are followed up and health and social services are available. Likewise, the Alameda program recognizes that good care is comprehensive and integrated; and that because homeless people's needs are complicated and extensive, no one service is sufficient to meet those needs.

**Using CHWs to extend existing successful projects can be beneficial.** Even the most successful projects with experienced staff often cannot meet all patients' needs. Utilizing **CHWs** to support and/or expand existing projects enables health centers to meet more of their patients' needs. In Syracuse, the CCM program is both successful and necessary. However, the program as designed cannot meet all the needs of the community. CCM clients lose eligibility for the program when they are no longer pregnant, or when their child reaches the age of one. Some clients may not be ready for self-sufficiency when their eligibility expires and may need access to a case manager who can help coordinate services. Syracuse's use of the **AmeriCorps**

members to extend this program provides a life-line for some of the most at-risk women and children. In West Alabama, the AmeriCorps members are able to fill in gaps and visit routine prenatal and infant cases. Additionally, AmeriCorps members have been able to follow infants past the age of one to ensure they receive immunizations in a timely manner.

**Using CHWs to implement new programs could be beneficial.** It may be beneficial to utilize CHWs to implement a new program sorely needed by the community, but organizations should be cautious about relying too heavily on temporary workers. If CHWs are performing essential roles, the program may suffer when the CHW's term of service is completed, during gaps in service by a CHW, or before a new CHW is acclimated to the position. Additionally, using CHWs in essential roles in established departments may be cost effective, but organizations may be subject to the same pitfalls described above.

**Program administrators should realistically assess the CHW's job and implement policies and regulations to assist the CHW.** Some CHW programs require CHWs to work with challenging populations or in unsafe areas. Program administrators should implement policies that maximize CHW effectiveness and minimize CHW risk. Alameda County program administrators know that working with the homeless population is difficult. Administrators understand it is vital to incorporate administrative and management tools into the program to combat burn out. Administrators responded by laying out guidelines about scheduling contact hours, limits to where and when clients can reach CHWs (e.g., CHWs should not give out their home phone number).

## **Recruitment**

**CHWs can be most effective if they are members of the community being served.** Programs have found that patients and/or clients develop a sense of kinship with CHWs who are from the community. Program coordinators at Northwest Michigan have found that CHWs who are migrants can best work with other migrants. Because the CHWs are peers, they understand the culture and circumstances of fellow migrants. Additionally, they speak the same language and

are often related to the migrants in their camp. The migrants would not feel as comfortable speaking to an outsider. Brownsville administrators have experienced the same results with using Hispanic, Spanish-speaking *promotoras*.

**Bringing outsiders into a remote community may also be useful.** Including some non-local CHWs can sometimes add fresh perspectives to a program and community. Lubec found it was beneficial to integrate outsiders into the community since it is so remote. Non-local CHWs helped broaden the experiences of local CHWs and community members.

**Successful program participants are not necessarily the most outspoken.** Programs that include less outspoken CHWs not only benefit the community but also help build skills and confidence in its participants. Some program clients find that they are more willing to confide in a more reserved CHW. The Brownsville *Mano A Mano* program has learned this lesson. One *promotora* was shy and reticent, but was seen as trustworthy and sincere. Since being a *promotora*, she has gained confidence and is now loquacious. *Promotoras* at Logan Heights have also experienced a boost in their self-confidence as a result of participating in the CHW program.

**Employing people from the community with few job skills or experience can be valuable.** People who otherwise might not have the opportunity are able to learn professional skills, gain self-confidence, and esteem in the community. For example, CHWs in Syracuse were proud to give back to the community. Many serve as role models for others who are at risk. Additionally, Syracuse's program gives the host site the opportunity to give to the community by training individuals with few skills.

**Effective case-management hinges upon the CHWs' ability to establish rapport.** Program managers in Alameda County have learned that personal qualities (e.g., open personality, ability to listen, be compassionate and respectful) are as important as case-management skills. Unlike intake skills and case-management that can often be taught, individual traits like strong communication skills, determination, pragmatism, logic and compassion must be brought to the job.

**Homelessness crosses demographic categories.** CHWs do not have to be of the same demographic subgroup (such as race, age, sex) as the homeless client to do appropriate outreach or case-management. Homelessness presents a unique set of needs that extends beyond demographics.

**Homeless clients often respond well to CHWs who were previously homeless, and substance abusers to those who previously had a substance abuse problem.** During focus groups for this study, clients expressed appreciation for the street smarts that come from the experience of being homeless. Guidelines from contracting organization and Alameda County staff suggest several strategies when using previously homeless or substance abusing individuals as **CHWs**: the person must recognize the process used to leave their situation, and be able to teach it to others; and have chronological distance from the time they were homeless or substance abusing.

## **Training**

**Conducting group training at the beginning of a program year helps develop teamwork.** Instilling team work among participants in a program's infancy is often essential to the program's success. **Lubec** found that delaying training until the national or state orientation and training meetings did not foster a sense of teamwork among the AmeriCorps members. This year, the program conducted its training sessions during the members' first week in service, which helped to orient members to the program and each other and has resulted in an enthusiastic team of AmeriCorps members.

**Programs should provide CHWs with more assignment-related training.** The national and state AmeriCorps programs could consider providing training sessions relevant to member assignments rather than general orientation sessions. Several members requested that they receive training related to their work to better prepare them for their positions.

**Intensive member orientation and training can make up for the short duration of some CHW programs.** Some programs involve **CHWs** for a limited duration (e.g., AmeriCorps

members generally work 10 months or until they fulfill their 1,700 hour commitment). Since traditional training could take up to several months to prepare CHWs for all aspects of their job in the health center and community, some health centers have created shorter, more intensive training modules to bring CHWs up to speed more quickly. For example, CHWs in Syracuse underwent an extensive orientation and training period that acclimated most to the health center and their job requirements.

**CHWs must constantly upgrade their skills.** Certificate programs, conferences and training sessions are important to maintain CHWs' knowledge on current issues and new tools and resources for serving homeless people. Alameda's program stresses continuing education for its CHWs.

### **Supervision**

**Clear communication among participants makes for a successful program.** The roles and responsibilities of CHWs should be made clear to supervisors as well as the CHWs themselves. For example, Northwest Michigan's clinical staff and the Camp Health Aide program staff are small and informal communication has worked well for conveying clinical information, so CHW notes are not included in the patient's record. In contrast, larger programs with more staff members may find that informal methods of communication will not suffice in conveying information about patients. Whether programs include encounter forms in the medical record, or clinicians record CHW involvement with patients, interactions between program participants should be documented in the patient record. In the case of West Alabama, it may initially seem that there is redundancy of information among the physicians, care coordinators, and home visitors; however, in the long run, West Alabama has found it beneficial to keep everyone informed on patients' information, so that there are no cracks in the system.

**Sponsoring more than one CHA program can obscure the roles of both CHWs and non-CHW staff; however, this can be eased by clearly defining the programs and their rules.** When running multiple programs with different funding streams and rules, as in the case of

Syracuse, managers must find ways to **continuously reconcile** these administrative differences to deliver services to clients with as little discontinuity as possible. Implementing multiple projects that have similar goals and objectives can be confusing to staff members and patients. West Alabama has successfully solved this problem by defining the roles of the outreach workers and AmeriCorps members involved in the home visitor program.

**Supervisors need to be involved in all aspects of CHW program planning.** Supervisors involved in program planning, hiring **CHWs**, and program management will be more invested in the program, understand their roles and the roles of **CHWs** more clearly, and be willing to devote the extra support and attention needed by some members.

**In sites with AmeriCorps members (or members of similar programs) ongoing and periodic training should be done for non-CHW internal staff to give them a thorough understanding of the program, its mission and goals and the role of the CHW.** Staff members should understand the opportunities the program will afford for their department, the health center in general and the **community** at-large. An external speaker from AmeriCorps could help to (re)-introduce the program to the staff.

### **Funding/Costs**

**Creative financing can keep a successful program alive.** Often CHW programs will not be funded through medical funding streams. Instead, program managers should be on the lookout for alternative funding sources. For example, Brownsville sought ways to continue the *Mano A Mano* program after funding from the March of Dimes ended. Use of federal, local and state funds, as well as charitable contributions, has allowed this program to survive for the time being. However, obtaining future funding is a challenge. West Alabama sought ways to continue the Home Visitor Program after funding from the Ford Foundation ended. Use of the Community Integrated Service grant and the AmeriCorps program has allowed this successful program to survive and grow. Leaders at **Logan** Heights have been very creative in assembling a cohesive program from multiple funding streams as well.

**Policymakers and program administrators should recognize the need for alternate, non-medical funding streams for CHW programs.** Peer counseling programs like the one at Logan Heights rely on funding that is apart from that for medical services; such funding streams must be maintained. Likewise, a medical model cannot pay for the types of services offered by **CHWs** in the Alameda County program. Alternative resources are needed to create and operate a program that serves clients by providing outreach and case-management.

**Programs that pay CHWs well experience good results.** Many programs do not find themselves in stable funding positions and are unable to pay **CHWs** sufficient salaries (even though they would like to). Those programs that have the resources have experienced good results from paying **CHWs** well. Although **CHWs** in Alameda are strongly committed to serving the homeless population, good salaries improve job satisfaction, and **CHWs** tend to remain with the organization longer. The continuity is less disruptive to the clients as well as the organizations. If salaries are low, staff themselves are in financial jeopardy, creating a situation where employees' performance and goals are altered.

### **Recordkeeping/Data Collection**

**CHW encounter records should be included in the patient record.** Including CHW encounter forms in patient records helps integrate the CHW program with the health center's clinical activities. Currently in West Alabama, home visitors' remarks are summarized in the patient record. West Alabama has recognized the value of having a copy of the visitor's full report in the chart, which often gives clinicians further insight into the patient's circumstances. West Alabama will **begin including** the full reports in the future. Brownsville is also considering including a copy of the *promotoras'* encounter sheets in the patient's record. Providers report that including this non-medical information could assist them in caring for patients.

**Outcomes measurement should be a priority.** In a time when fewer resources are available, it is crucial that programs be able to document outcomes from CHW involvement. For example, gathering data on the number and types of referrals made by *promotoras* in Brownsville could

shed light on the outcomes of the program. Including a copy of the *promotorus*' contact and referral sheet in the patient's record might also establish whether the program has brought new patients to the health center. For example, if the Northwest Michigan program is trying to show that the Camp Health Aide program has an impact on migrants' appropriate use of health care facilities, data must be available to prove the link. Programs should devise ways to integrate their outreach data with clinical data generated by other parts of the health center. The use of single patient identification numbers across programs may be a prudent step in integrating such data.

Opportunities for improved data are arising as health centers update their management information systems (MIS). Programs should invest in the appropriate equipment, software packages and trained personnel to produce this data. Logan Heights clearly understands the importance of providing outcomes data, as shown by their extensive **pre/post** testing but, like other programs, finds it difficult to commit the needed resources to evaluation **when** program needs are so pressing. The strain on resources is likely to increase.

## NEXT STEPS

Since this study was designed to be exploratory in nature as to the uses, roles, and outcomes demonstrable from CHW programs nationwide, it necessarily cast a wide net resulting in an understanding the broad range of CHW **programs**.<sup>6</sup> The study's results point the way to the next steps evaluation research concerning **CHWs**. We suggest that BPHC (perhaps in conjunction with the Maternal and **Child** Health Bureau, the **Office** of Rural Health, and others who have an interest in CHW programs) conduct studies that concentrate on more homogeneous groupings of CHW programs. Specifically, such studies could focus on one or more of the following groupings: 1) the

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<sup>6</sup>*To our knowledge, the only major model of CHWs not included in the study was that of a membership association (e.g., a primary care association) that places CHWs in its constituent member organizations. Since our experience with another evaluation of CHW program suggested that acquisition of data is even more complex when the network is a step removed from the data sources, and has no means of commanding reporting, this model was excluded from this study.*

program focus (community versus clinical); 2) the **CHW** functions (e.g., outreach, home visiting); and/or 3) vulnerable target populations. Such studies could provide BPHC with further insight into the management of such programs, as well as the impact they have on patients' access to care, proper use of services, and patient knowledge and behavior.

### **Program Focus: Community Versus Clinical**

One way to categorize CHW programs is whether their primary focus is the community or else the clinical aspects of the health center.<sup>7</sup> Four of the seven study sites have **community-**focused programs (Brownsville, Logan Heights, **Lubec**, and Northwest Michigan). **CHWs** had very little connection with the clinical operations of the health center. The remaining three sites (Alameda, Syracuse, and West Alabama) operated programs in which **CHWs'** activities were integrated with the health centers' clinical operations (even though they conducted the bulk of their duties off-site in the community).

### **CHW Functions**

The second way to narrow the focus of future studies would be to concentrate on specific CHW functions. As this study demonstrated, **CHWs** take on a wide variety of functions: **outreach/casefinding**, health education, patient education, referrals, home visits, assisting in clinics, care (case) management, etc. Follow-up studies can be more narrowly focussed on one or more of these functions, such as programs in which **CHWs** perform health education.

One challenge of such function-specific studies will be the lack of widely-accepted definitions of functions such as "outreach". This will require not only careful operational definitions from the researchers, but also clear communications with potential and actual study sites.

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*'As with all typologies, CHW programs do not neatly and exactly fall into the community vs. clinical categories: instead, researchers will need to identify where the preponderance of a site's CHWs are focussed.*

Exhibit 3 illustrates the **typology** of the **seven sites** studied. Sites have been stratified by whether they are community- or clinically-focused, and by the functions they perform.

**EXHIBIT 3  
TYPOLOGY OF CHW PROGRAMS**

<b>CHW FUNCTIONS</b>	<b>PRIMARY FOCUS COMMUNITY</b>	<b>PRIMARY FOCUS CLINICAL</b>
Outreach/Case Finding	Brownsville Logan Heights Lubec Northwest Michigan	Alameda Syracuse West Alabama
Health Education	Brownsville Logan Heights Lubec	Syracuse West Alabama
Patient Education	Brownsville Logan Heights Northwest Michigan	Alameda Syracuse
Referrals	Brownsville Logan Heights Northwest Michigan	Alameda Syracuse West Alabama
Home Visits	Brownsville Logan Heights Northwest Michigan	Syracuse West Alabama
Assisting in Clinics (includes translation services)	<b>Brownsville</b> <b>Northwest Michigan</b>	<b>Syracuse</b> <b>West Alabama</b>
Case-management	<b>Brownsville</b> <b>Lubec</b> <b>Northwest Michigan</b>	<b>Alameda</b> <b>Syracuse</b> <b>West Alabama</b>

**CHW Program Target Groups**

A third way CHW programs can be evaluated is based upon the vulnerable populations they attempt to serve. The seven sites studied for this report have created programs, partly in response to available funding that address the needs of specific populations within their service areas. Those populations include: migrants, prenatal patients (both high risk and no/low risk patients) and their infants, homeless, **HIV/AIDs**, elderly, adolescents, children, and a **border** population. Future research could isolate one target population group (e.g., prenatal patients) and study various programs designed to address the needs of that group. Assessments could be made

to determine the best practices and lessons learned by the participants in delivering services to the target population.

### **Mixing and Matching**

Using the above typologies, BPHC could decide to home in on those that fit in just one cell of what is, in effect, a three-way matrix (i.e., focus by function by vulnerable population). For example, its research could study clinically-focussed **CHWs** providing home visits to perinatal patients. Alternatively, the research could be broadened somewhat either by expanding the focus (i.e., community-focussed *and* clinically-focussed), the functions (e.g., home visiting and care management), or the vulnerable populations. Thus the **typology** allows the Bureau to mix and match its studies to meet its evaluation needs.

### **BPHC Leadership in Information Systems**

As discussed above, better measurement of the impacts of **CHW** programs will depend upon improved data systems. Many, if not most, of the health centers are currently upgrading their information systems, usually in response to the increased demands of **funders** (e.g., the Bureau's Uniform Data System) or of managed care: In most cases, they are including better tracking of clinical information through automated systems.

Although few health centers making such improvements, however, are including **CHW** services in the automated systems, they could be encouraged to do so. In particular, it would be helpful if:

- Common patient identifiers were used on all documentation, including the CHW forms and logs.
- **CHWs** completed encounter forms that could be entered in the same data base as other **encounters**. This would allow tracking of whether a CHW intervention affected future

access and appropriate use of services. For example, outside of special labor-intensive studies, there is currently no way of measuring whether a phone call to an emergency room patient results in future kept primary care appointments. Such measurements would be far easier if they were on the same system.

- Referrals outside the center's own services (e.g., for substance-abuse treatment) were carried on the same data base, rather than, as now, on separate paper-based systems.

We strongly recommend that BPHC encourage these developments, so that the next round of CHW studies produces more and stronger outcome information.

**APPENDIX A**

ANNOTATED BIBLIOGRAPHY



## ANNOTATED BIBLIOGRAPHY

**L.R. Bone, J. Mamon, D.M. Levine, J.M. Walrath, J. Nanda, H.T. Gurley, E.K. Noji, E. Ward.** “Emergency department detection and follow-up of high blood pressure: Use and effectiveness of community health workers,” *American Journal of Emergency Medicine* 7, no. 1 (January 1989): 16-20.

A 2-year study followed Community Health Workers (CHWs) who provided blood pressure and pulse measurements, educational counseling on high blood pressure and cardiovascular risk factors, telephone reminders for upcoming follow-up appointments, and recontact after missed blood pressure appointments in an emergency department. Appointment reminders resulted in a 19 percent improvement in kept appointments. Contact with a community health worker led to an improvement rate of 7 percent for patients who failed to return for follow-up appointment. CHWs were shown to be useful in assisting with screening and counseling for chronic conditions in the emergency department. An added benefit to using CHWs was the integration of the emergency department, the community, and continuing-care sites.

**P.J. Bradley and J. Martin.** “The impact of home visits on enrollment patterns in pregnancy-related services among low-income women,” *Public Health Nursing* 11, no. 6 (December 1994): 392-8.

This article examined the impact of home visits, conducted by teams including registered nurses, social workers, and indigenous CHWs, on enrollment of women from two Indianapolis neighborhoods into pregnancy-related services. Following admission to care coordination there was a significant increase in participants enrolled in prenatal care, WIC, Medicaid and Food Stamps. The majority who enrolled did so within one month of admission to care coordination.

**S. A. Brown and C.L. Hanis.** “A community-based, culturally sensitive education and group-support intervention for Mexican Americans with NIDDM: A pilot study of efficacy,” *Diabetes Education* 21, no. 3 (May-June 1995): 203-10.

This study examined the feasibility of providing a diabetes patient education and group-support program directed by a clinical nurse specialist, dietitian, and community health worker, for a rural Texas-Mexico border community. Participants received eight weeks of education sessions and participated in group discussions. Results suggested participants experienced a statistically significant improvement in diabetes knowledge, fasting blood sugar levels, and glycosylated hemoglobin levels.

**J.N. Brownstein, N. Cheal, S.P. Ackerman, T.L. Bassford, D. Campos-Outcalt. "Breast and cervical cancer screening in minority populations: a model for using lay health educators," *Journal of Cancer Education* 7, no. 4 (Winter 1992): 321-6.**

A model using lay health educators (also referred to as lay health advisors, natural helpers, community health facilitators, natural caregivers, community health advisors, promotoras) as mediators between minority women and health agencies, establish a social network and offer social support was discussed. The program's goal was to increase detection, prevention and treatment of breast and cervical cancers in Yaqui Indian and Mexican-American women aged 35 and older. Recruitment, training and curriculum development were also outlined. A process evaluation focused on selection, recruitment, retention, and training of the lay health educators, as well as the implementation of the intervention in the targeted populations. An impact evaluation was also planned. It would examine the knowledge and behavioral changes in both lay health educators and target populations. Structured interviews with control and intervention groups would be compared at baseline and one and two years after the intervention. Community members' participation in screenings and their awareness and use of lay health educators would be measured. Long-term impact of the intervention of breast and cervical cancer morbidity and mortality rates would be measured in an outcome evaluation. Data from the impact and outcome evaluations were not included in the article.

**A.M. Butz, F.J. Malveaux, P. Eggleston, L. Thompson, S. Schneider, K. Weeks, K. Huss, C. Murigaude, C.S. Rand. "Use of community health workers with inner-city children who have asthma," *Clinical Pediatrics* 33, no. 3 (March 1994): 13541.**

**CHWs** were used to obtain health, social, and environmental information, provide basic asthma education, and facilitate access to primary care health professionals in one component of a larger intervention designed to reduce asthma-related morbidity among inner-city African-American children. A three-month training for the **CHWs** consisted of basic anatomy and physiology of the respiratory system, recognition of asthma symptoms, medical treatments for asthma, environmental control measures, smoking cessation, basic parenting skills, community-based resources, and importance of primary health care. **CHWs** completed 140 structured home visits in Baltimore, MD and Washington, DC. The study showed that **CHWs** are effective in locating and gaining access to homes of high-risk children, are able to effectively communicate health information and gather home environment characteristics, and address the use and misuse of asthma medications.

**J.G. Cauffman, W.A. Wingert, B.D. Friedman, E.A. Warburton, and B. Hanes. "Community health aides: how effective are they?" *American Journal of Public Health* 60 (1970): 1904-1909.**

This study compared the effectiveness of community health aides (**CHAs**) to instruct mothers how to care for a child with an upper respiratory infection (**UPI**) with the effectiveness of instruction given by nurses or physicians. Investigators randomly assigned 275 mothers to either

a CHA, nurse or physician for instruction in home care of UPIs. Results indicated there was no difference in the level of compliance among mothers who were instructed by CHAs, by public health nurses, or by physicians.

**“Community Health Workers: A leadership brief on preventive health programs,’ presented by CivicHealth Institute at Codman Square Health Center, Harrison Institute for Public Law at Georgetown University Law Center and the Center for Policy Alternatives. May 1997.**

This briefing paper described who CHWs are, what they do, model CHW programs, and highlights some outcomes. CHW program results included: a home-based lead screening CHW program showed that from June 1995 - December 1996, home visits showed that 38 percent of tested children had elevated lead levels versus a national average of 9 percent; after working with the CHWs, 59 percent of the home risks showed improvement. In an intensive home visiting and support program focusing on low-income pregnant women, and children and their parents in Virginia, over 2100 families were served by home visitors, public health nurses and other service delivery staff. By the second year of the program the child immunization rate was 91 percent (20 percent improvement); more than 30 percent of mothers were employed (130 percent improvement); AFDC enrollment was 26 percent (35 percent reduction); children’s use of private MD/HMO was 85 percent (44 increase); and mothers’ use of private MD/HMO was 61 percent (39 percent increase). Program participants’ use of hospital and emergency room services declined over the two-year period, and the cost of providing services to participants also declined. In a program at Presbyterian Hospital in New York, CHWs worked with triage nurses in the emergency rooms to re-route patients to primary care appointments, educate patients about the value of primary care, and follow-up on patient satisfaction. The hospital found that CHWs impacted the no show rates at its primary care clinics (from 50 percent to 11 percent over a 3 year period); non-urgent emergency room use decreased by 42 percent; and patients keeping their first primary care appointment rose to 89 percent. Finally, at Boston City Hospital a program utilizing family health advocates in conjunction with a family health advocate established a therapeutic relationship and provide child development and information support during the pediatric visit. Infant participants were less likely to have emergency room visits than other hospital infants (1.47 versus 2.07 visits with a savings of \$166 per participating child); 2 participants were hospitalized. versus 30 for the comparison group, and hospitalizations were shorter for participants (3 days versus 4.6 days). Participant hospitalizations were projected to cost \$5,584 versus \$128,064 for the comparison group representing a savings of \$1,270 per child in the program.

**T.J. Columbo, D.K. Freeborn, J.P. Mullooly, V.R. Burnham. “The effect of outreach workers’ educational efforts on disadvantaged preschool children’s use of preventive services,” *American Journal of Public Health* 69, no. 5 (May 1979): 465-S.**

This article described a study conducted to determine outreach workers’ effects on the use of preventive services by the low income population in Portland, Oregon. Preschool children

assigned to a neighborhood health coordinator used preventive services at a 55 percent higher rate than did children who did not have a coordinator. Children of families assigned to an adult-prevention coordinator had a 40 percent higher rate of prevention services than those without coordinator services.

A Ray Hepner letter to the editor pointed out three faults in the experimental design of the above study. D.K. Freeborn clarified elements of the study design in a response. (*American Journal of Public Health* 69, no. 9 {September 1979}: 954-955.)

**E. Corkery, C. Palmer, M.E. Foley, C.B. Schechter, L. Frisher, S.H. Roman. "Effect of a bicultural community health worker on completion of diabetes education in a Hispanic population," *Diabetes Care* 20, no. 3 (March 1997): 254-7.**

This study measured the effect of diabetes education that bicultural CHWs delivered to inner-city hospital clinic patients. CHWs acted as liaisons between patients and their families and health care providers for the intervention group (30). They also attended clinic sessions with assigned patients, serving as interpreter, reinforcer of self-care instructions, providing reminders for upcoming appointments, and rescheduling missed appointments. The control group (34) received the standard clinic diabetes education. Rates of education programs completed, diabetes knowledge, diabetes self-care practices, and glycohemoglobin levels were compared for both intervention and control patients in the program. Of the patients having community health worker intervention, 80 percent completed the education program, compared with 47 percent of patients without intervention. The effect CHWs had on program completion was significant (controlling for financial status and language spoken). For those who completed the program, improvements in knowledge and self-care practices was noted. Average glycohemoglobin levels at program completion versus baseline improved as well (9.5 percent versus 9.9 - 11.7 percent).

**P. Diehr, K.O. Jackson, and M.V. Boscha. "Access to medical care: the impact of outreach services on enrollees of a prepaid health insurance program," *Journal of Health and Social Behavior* (no date).**

This article gave an overview of the role of CHWs in the health delivery system. The Seattle Model Cities Prepaid Health Care Project was the study site. The intervention and control groups contained, respectively, 1,162 and 1,046 people. Both groups of low-income individuals were given free medical care, and one group also received outreach services. After one year, the outreach group was shown to be significantly more likely to utilize and report utilization of services. They also reported more physical examinations, and an increased knowledge of and use of support services.

**H.R. Domke and G. Coffey. "The neighborhood-based public health worker: Additional manpower for community health services," *American Journal of Public Health* 56, no.4 (April 1966): 603-8.**

This article discusses the use of neighborhood-based workers as members of the public health team within the Allegheny County Health Department in Pennsylvania. They fulfilled an important role where manpower and resources were limited. Evaluation, training, and recruitment are highlighted.

**"Fair Start for Children - Lessons Learned from Seven Demonstration Projects," (Chapter 5: The Rural Alabama Pregnancy and Infant Health Project: A Rural Clinic Reaches Out by M.C. Nagy, J.D. Leeper, S. Hullett-Robertson, R.S. Northrup). Edited by M. Larner, R. Halpern, O. Harkavy. Yale University Press, New Haven and London (1992).**

This chapter described West Alabama Health Services, Inc., a rural health clinic. Contents include: population served; problems of health and access to health care; a description of Rural Alabama Pregnancy and Infant Health Project (RAPIH) model and its participants, how RAPIH is organized; the home visiting program and supervisors; services received by program participants; design and model for evaluating the program's impact; measuring the impacts of the prenatal and postnatal programs; and a discussion of the role a home-visiting program can play in a health center.

**F.A. Finnerty Jr., E.C. Mattie, F.A. Finnerty 3rd. "Hypertension in the inner city: Analysis of clinic dropouts," *Circulation* 47, no. 1 (January 1973): 74-5.**

A study was conducted to determine reasons for dropouts from four inner-city Washington, DC hypertension clinics. The amount of time expended to receive care, patient intelligence and understanding of his disease, and doctor/paramedical-patient relationship were found to be the factors that most affected the patients' attitude. The results indicate that a physician was not crucial for compliance; 54 percent of the patients accepted the assistance of a health aide. Changing the clinic operations with a focus on **personalizing** the provider-patient relationship and attention to convenient appointment scheduling reduced dropouts from 42 percent (1966-1969) to 8 percent in 1970-1971.

**D.K. Freeborn, T. Colombo, J. Meyers, J.P. Mullooly. "Evaluating the effect of outreach workers on medical care utilization in the Kaiser-Permanente Neighborhood Health Center project," Health Services Research Center, Kaiser Foundation Hospitals, Portland, Oregon. Prepared under the support of DHEW Grant 002-D-20-2 (no date).**

The role of the neighborhood health coordinator as part of the outreach program was evaluated, with the goal of measuring their effect on medical care utilization patterns and behavior. Individuals were divided into intervention (5,483), who had a coordinator assigned to them, and

control ( 1,630) groups. Main responsibilities of the health coordinator were to teach family members the meaning and value of good health and health practices, to motivate people to utilize health services as needed, to help them negotiate the Kaiser-Permanente medical care system, and to make referrals to community resources. Contact with a coordinator was shown to have minimal effects on patterns of utilization, but had some impact on the amount and appropriateness of use. The intervention group showed a higher average number of contacts, possibly suggesting that continuity of care was improved for that group. The control group had a higher proportion of walk-in contacts and emergency room contacts.

**D.K. Freeborn, J.P. Mullooly, T. Colombo, V. Burnham. "The effect of outreach workers' services on the medical care utilization of a disadvantaged population," *Journal of Community Health* 3, no. 4 (Summer 1978): 306-20.**

This article discussed a large study done to determine the effects of outreach services on use or non-use of ambulatory care services, the volume and type of services used, the patterns of use, and appointment-keeping behavior of the project participants. The study population were Portland, Oregon families enrolled in the Neighborhood Health Center project from October 1, 1967 to August 31, 1969. They were divided into an intervention group (assigned to a neighborhood health coordinator) and a control group (individuals without a coordinator). Study participants who received outreach services used the medical system at a slightly higher rate than those who did not (not statistically significant). Ambulatory care utilization rates were higher for the intervention group. Direct contacts measured 146 percent higher for females (not statistically significant) and 139 percent higher for males (statistically significant). A smaller proportion of walk-in contacts were found among the intervention group. Contact with an outreach worker had little effect on appointment-keeping rates.

**P.T. Giblin. "Effective utilization and evaluation of indigenous health care workers," *Public Health Reports* 104, no. 4 (July-August 1989): 361-8.**

The author reviewed indigenous health care worker (MCW) program characteristics including: recruitment, selection, training, employing, and evaluating. The author addressed the unique applicability of indigenesness to the delivery of health care services, specifically the rationale for using IHCWs, the criteria for their success, benefits of using them, and evaluation deficiencies. A program evaluation model was proposed that assesses the processes and outcomes of providing health services by IHCWs.

**J.L. Gonzalez and L.H. Woodward. "Expanding roles for health assistants in a model cities health program," *Health Services Report* 89 (1974): 145-151.**

The article discussed the use of health assistance in the Community Health Assistance Project a component of the Laredo-Webb County Health Department in Texas. The program, an information and referral system supervised by a social worker, focused on community health

education. The health assistants promoted immunizations among preschool children by making direct referral to the health department's immunization clinics. Later the assistants expanded their duties to include teaching mothers infant care (e.g., formula making, diarrhea prevention, and nutrition); participating in carbon monoxide and lead paint poisoning detection programs; and promoting dental health in the home.

**A.M. Health and D.R. Pelz. "Perceptions of functions of health aides by aides themselves and by others," *Public Health Reports* 85, no. 9 (September 1970): 767-72.**

This article outlined the concept of health aides teamed with health educators, public health nurses, physicians, social workers, enforcing agents and administrators. Health aide roles or functions and categories of clients they can serve, as perceived by the health aides themselves, were discussed.

**M.N. Hill and D.M. Becker. "Roles of nurses and health workers in cardiovascular health promotion," *American Journal of Medical Science* 310 (December 1995) Supplement 1: S123-6.**

This article discussed the benefits of multidisciplinary teams made of community-based nurses and CHWs who supplement physician office-based practices in promoting cardiovascular health. The authors stated that control rates for high blood pressure are highest when multidisciplinary teams helped patients actively participate in the treatment/prevention programs.

**M.N. Hill; L.R. Bone, A.M. Butz. "Enhancing the role of community-health workers in research," *Image: Journal of Nursing Scholarship* 28, no. 3 (Fall 1996): 221-6.**

The rationale for including CHWs in research, their roles and responsibilities, and issues in selection, training, and supervision were described in this article. CHWs enhanced the roles of professionals through outreach and community-based work. As part of a team of nurses and community, the CHW served as a liaison between communities and institutions, and provides a holistic scientific approach to understanding health in a community. They facilitated the ability to incorporate residents of the target community into research and service program, and are skilled at translating cultural norms, values, practices and goals of both the researchers and target populations. Project roles such as research assistant, recruitment coordinator, data collector, interventionist and project coordinator were options for CHWs. Human resource issues (position characteristics, selection criteria and processes, training, supervision, retention, capacity building and career development) of using CHWs were outlined.

**J.A. Kent and C.H. Smith.** “Involving the urban poor in health services through accommodation: The employment of neighborhood representatives,” *American Journal of Public Health* 57 (1967): 997-1003.

The article discusses the use of neighborhood representatives in providing health care to low-income people in poor neighborhoods. Issues such as selection and recruitment, training, supervision, work functions, and program outcomes are discussed. The authors suggest that providing health care to low-income individuals in poor neighborhoods is possible if their cultural and economic aspects are taken into account.

**L. Lacey, S. Tukes, C. Manfredi, RB. Warnecke.** “Use of lay health educators for smoking cessation in a hard-to-reach urban community,” *Journal of Community Health* 16, no. 5 (October 1991): 269-82.

This article described the implementation of a smoking-cessation program using indigenous lay health educators to target young black women living in several urban public housing developments. The intervention, in conjunction with a televised program featured either class sessions or reminder visits conducted by the community lay health educators (LIE). The LHEs motivated 235 individuals to sign up for the program; 141 attended at least one session or reminder visit.

**J.D. Leeper, M.C. Nagy, S. Hullet-Robertson.** “Prenatal diet adequacy among rural Alabama blacks,” *The Journal of Rural Health* 8, no. 2 (Spring 1992): 134-8.

This study uses a 24-hour dietary recall to describe the diets of 186 women participating in the Rural Alabama Pregnancy and Infant Health program from mid-1984 to mid-1986. Participants live in rural areas, are black, of low-income status and are pregnant. It also looks at factors that are associated with adopting an adequate diet. Marginal beneficial improvements resulted from a home visitor who gave lessons on proper diet and food preparation, assisted women in applying for WIC and other benefits, and provided transportation.

**D.M. Levine, D.B. Becker, L.R Bone.** “Narrowing the gap in health status of minority populations: A community-academic medical center partnership,” *American Journal of Preventive Medicine* 8, no. 5 (September-October 1992): 319-23.

This article described a 15-year collaborative program between Johns Hopkins Medical Institutions and an African-American community with high rates of premature disease and mortality. The program included a clinical trial with patients and a population approach using trained community health workers. Results showed improved control of hypertension and a resulting decrease in morbidity and mortality. High blood pressure control in men increased from a community rate of 12 to 40 percent.

M.B. Love, K. Gardner, V. Legion. "Community health workers: Who they are and what they do," *Health Education and Behavior* 24, no. 4 (August 1997): 510-22.

An individual serving as a health care professional, and who is ethnically, linguistically, socioeconomically, and experientially similar to the community members is the definition of a CHW in this study. A survey of eight Bay Area counties found that 25 percent of 197 health care providers hire CHWs. The majority (83 percent) of the CHWs were employed by the county health department and community-based organizations. Most of the community health workers were women (66 percent) of color (77 percent) with a high school degree or less (58 percent). An annual salary of \$20,000 to \$25,000 was earned by 44 percent of the community health workers, and 30 percent earned more than \$25,001. Most of the CHWs addressed AIDS and maternal and child health topics.

J. Luckham and D.W. Swift. "Community health aides in the ghetto: The Contra Costa project," *Medical Care* 7, no. 4 (July-August 1969): 332-9.

This report described the first six months of a community health aide program focused on home visits and immunization promotion run in Contra Costa County, California. Issues such as recruiting, training, compensation, and attrition were discussed. The authors described how the aides progressed from gathering information on families' immunization status to assisting the health department with needed surveillance of families with non-acute health problems that were difficult for public health nurses to follow up.

M.C. McCormick, J. Brooks-Gunn, T. Shorter, J.H. Holmes, C.Y. Wallace, M.C. Heagarty. "Outreach as case finding: Its effect on enrollment in prenatal care," *Medical Care* 27, no. 2 (February 1989): 103-11.

This study examined the effect of employing community resident outreach workers on the start of prenatal care among women in central Harlem in New York City. Of the 599 women enrolling for prenatal care, only 52 had outreach contact before starting care. Women in contact with an outreach worker enrolled in prenatal care somewhat earlier than those without the outreach; however, the difference was not statistically significant. Case-finding outreach proved to be labor intensive and **did not** prove effective. The authors suggested that outreach workers could increase their productivity by enhancing their duties to include follow-up and advocacy.

F.J. McLaughlin, W.A. Altemeier, M.J. Christensen, K.B. Sherrod, M.S. Dietrick, D.T. Stern. "Randomized trial of comprehensive prenatal care for low-income women: Effect on infant birth weight," *Pediatrics* 89 (January 1992): 128-32.

Using a prospective randomized design, this study examined the effect of **comprehensive** prenatal care delivered by a multidisciplinary team (which included paraprofessional home visitors) on infant birthweight versus the effect of standard prenatal care (delivered by obstetric

residents). Results of the study conducted in Nashville showed that comprehensive prenatal care had a favorable effect on birth weights of infants born to primiparous low-income women.

**J.S. Meister, L.H. Warrick, J.G. de Zapien, A.H. Wood.** “Using lay health workers: Case study of a community-based intervention,” *Journal of Community Health* 17, no. 1 (February 1992): 37-51.

The design and implementation of a prenatal outreach and education intervention aimed at low-income, Hispanic women living in three migrant and seasonal farmworker communities in Yuma County, Arizona was the focus of this article. Three elements made up the program: a prenatal curriculum (in Spanish); “*Comienzo Sano Promotoras*” (Health Beginning Health Promoters); and a support network of local health professionals. The program emphasized the identification of pregnant women (especially those without prenatal care, with inadequate social support, who lacked information on pregnancy, childbirth and infant care). Also stressed is the provision of education, support, advocacy and referral services. Another objective was to create an ongoing resource of knowledge about pregnancy, labor and delivery and postnatal care by training the promotoras. Five promotoras were recruited and received two months of training (four hours per week) in community resources, pregnancy, and education strategies. In the first year of the project, two twelve-week educational sessions were held. Participation in each 2-3 hour class ranged from eight to 29 women (average of 15). Problems and possible solutions regarding program size, curriculum, empowerment, burn-out, job development, and supervision were outlined. Financial and program sustainability of the program were also discussed.

**M.C. Nagy, J.D. Leeper, S. Hullett, R.S. Northrup, W.H. Newell.** “The rural Alabama pregnancy and infant health program,” *Family Community Health* 11, no. 2 (1988): 49-56.

This article focused on strategies used in the Rural Alabama Pregnancy and Infant Health Program (RAPIH), supported by a grant from the Ford Foundation to the University of Alabama. RAPIH was a home-visit program that utilized lay community workers to do outreach, provide prenatal and postnatal education, and offer social support to low-income families. Its goal was the improvement of perinatal outcomes, reduce infant morbidity and mortality, and early childhood development. The program targeted the high-risk black population in three counties (Greene, Hale, and Sumter counties) served by the West Alabama Health Services, Inc. Though lower-than-expected home visit rates, patient noncompliance, and engrained cultural attitudes and beliefs have challenged the program since it began, administrators contend it is an important part of the delivery of maternal and child health care service to low-income families in rural communities.

New York State Department of Health, Albany, Division of Epidemiology. "Epidemiology Notes," 5, no. 6 (June 1990) (Reprinted in *New York State Journal of Medicine* 90, no. 10 {October 1990}: 519-20).

This article highlighted the CHW program utilized by the New York State Department of Health. CHWs are hired as contractors, and were indigenous residents of high-risk areas (lower than state-wide average low-birth weight rates, infant mortality, receipt of prenatal care, and financial assistance eligibility). They worked with pregnant women and their families to overcome barriers to health care and access to services. Home visits were carried out to case find, provide preventive health education, do health risk assessments, help with translation and cultural interpretation with providers, provide referrals to health, social and community services, and support families in prenatal care and parenting. Training in communication and interviewing, community assessment, community resources and referrals, culture and health, and basic public health education was provided to the CHWs. The number and types of community health worker referrals, number of women who entered care or received services, pregnancy outcomes, gestational age and health status of the infant were evaluated to determine the program's effectiveness. Evaluation results were not described in the article.

**D.L. Olds and H. Kitzman. "Can home visitation improve the health of women and children at environmental risk?" *Pediatrics* 86 (July 1990): 108-16.**

The authors reviewed many randomized trials of prenatal and postnatal home visitation programs for socially disadvantaged women and children, several of which utilized paraprofessionals or community health aides. Five educational programs using paraprofessionals designed to promote maternal teaching and children's cognitive development found negligible or modest (4 to 5 points) effects on IQ. Randomized replications of two of these programs in New York City and Bermuda did not reproduce positive IQ findings that were derived from an earlier quasi-experimental design, although both did produce minor improvements in specific maternal and child skills taught in the curriculum. A program in Denver designed to prevent child abuse and neglect featured intensive pediatric consultation and weekly home visits by public health nurses and paraprofessional home visitors beginning in the newborn period and through the child's second birthday. The study found no statistically significant treatment differences in reported or verified cases of child abuse and neglect, indications of abnormal parenting, number of accidents, immunizations or scores on the Denver Developmental Screening Test; home visited women did, however, take their children to the hospital less frequently for serious injuries. The final program described using paraprofessionals visited poor women and their children nine times during the first 3 months of their children's lives in Greensboro, North Carolina. Two groups were compared: one who had early and extended contact between mothers and newborns (rooming-in); and another who received no treatment. The study found no treatment difference between the groups in child abuse or neglect, but the early contact group experienced modest benefits in mother-child interaction.

**M.L. Poland, P.T. Giblin, J.B. Waller Jr, J. Hankin.** “Effects of a home visiting program on prenatal care and birthweight: A case comparison study,” *Journal of Community Health* 17, no. 4 (August 1992): 221-9.

This study examined the impact of paraprofessional support services on the amount of prenatal care received by 111 low-income women and on the birthweight of their infants. The paraprofessionals, who received a six week training course, had at one time been recipients of public assistance and had successfully attained both health and social services for themselves and their infants. The paraprofessionals counseled and assisted pregnant women with social services and other basic needs. Women followed by a paraprofessional had more prenatal appointments (9 versus 6.5) and their infants had an average higher birthweights. The authors suggested that the paraprofessionals had an impact on the number of prenatal visits but that the cause of improved birthweights is unknown.

**C. Rico (Seedco - Partnerships for Community Development).** “Community health advisors: Emerging opportunities in managed care,” A report to The Annie E. Casey Foundation (March 1997).

This report detailed a feasibility study done to explore the potential for employment growth for CHWs. The following key findings were discussed in detail: state Medicaid managed care environment; composition and organizational culture of managed care organizations; capacity of providers of community health advisor services; existing models of MCO/CHA relationships; and challenges of the emerging market. The report looked at opportunities made by the transition to Medicaid managed care. Reduction of costs in caring for the Medicaid population was one motivation for managed care organizations to utilize community health advisors. The development of an agency that could create new jobs and promote the acceptance and use of community health advisors throughout the health care industry was suggested.

**J.C. Stewart and W.R. Hood.** “Using workers from ‘hard-core’ areas to increase immunization levels,” *Public Health Reports* 85, no. 2 (February 1970): 177-85.

This study examined whether indigenous personnel could be used effectively in raising immunization levels in low-income areas of Tulsa, Oklahoma. Results show a dramatic increase in the number of persons served and the number of immunizations delivered within the study period. After the intervention ceased, immunization rates declined to their original levels.

**J.F. Sung, D.S. Blumenthal, R.J. Coates, J.E. Williams, E. Alema-Mensah, J.M. Liff.** “Effect of cancer screening intervention conducted by lay health workers among inner-city women,” *American Journal of Preventive Medicine* 13, no. 1 (January-February 1997): 51-7.

A randomized controlled trial investigated whether receipt of an in-home educational intervention delivered by lay health workers could increase adherence to breast and cancer

screenings. Intervention (163) and control (158) groups of inner-city African-American women were selected. The intervention group was presented with up to three educational sessions in the home. Incidence of Pap smear screenings increased in both groups (indicating no effect from lay health worker contact). A modest increase in clinical breast exams and an increase from 10 percent to 12 percent in mammography was measured in the intervention group. Although a high attrition rate of women weakened the ability to make conclusive statements, the study suggested that lay health worker intervention appeared to improve the rate at which the targeted population received breast exams and mammograms.

**J.F. Sung, R.J. Coates, J.E. Williams, J.M. Liff, R.S. Greenberg, G.A. McGrady, B.Y. Avery, D.S. Blumenthal.** "Cancer screening intervention among black women in inner-city Atlanta: Design of a study," *Public Health Reports* 107, no. 4 (July-August 1992): 381-8.

A study examined whether an in-home, culturally-appropriate educational intervention by lay health workers can increase low-income, inner-city black women's adherence to scheduled breast and cervical cancer screenings. The lay health workers received a 10 week training course in interviewing, teaching, human relations skills and women's health issues. The goal was to increase by at least 15 percent the rate of participation of the women in cancer screenings and to increase their knowledge and change attitudes regarding the cancers. The **intervention** group consisted on 163 women who received two 1.5 hour educational sessions held two to three weeks apart. The control group consisted of 158 women. Three process measures were examined: ability to keep subjects involved until the end of the intervention; proportion of times the educational program was delivered completely and appropriately; and the amount of knowledge gained by the women in each session (pre-and post-intervention questionnaires were administered). An outcomes evaluation was designed to compare the proportions of women in the intervention and control groups who receive screening tests at baseline and at the end of the intervention. Evaluation outcomes were not discussed in the article.

**C.H. Stoskopf, M.E. Samuels, J.R. Ciesla.** "Findings from a demonstration outreach project at a community health center," *Journal of Health Care for the Poor and Underserved* 4, no. 1(1993): 51-63.

This article assessed an outreach project in Orangeburg, South Carolina designed to encourage use of a community health center through door-to-door canvassing. Outreach workers were senior student nurses from a traditionally African-American educational institution in the community. Workers made one home visit to each household for approximately 20 minutes to conduct a survey, take blood pressure readings, and educate the family about the health center. The project was unable to assist community members with transportation to the health center. According to the authors the response to the outreach program was disappointly low (**only** 40 of the 2,021 community participants contacted appeared at the health center for an appointment). However, the intervention was able to identify a population with primary care needs (e.g., hypertension control, and pap smear screenings), for underserved community members' **specific** needs for primary health care and can enhance community access to Medicaid.

**E.F. Torry, D. Smith, H. Wise. "The family health worker revisited: A five-year follow-up," *American Journal of Public Health* 63, no. 1 (January 1973): 71-4.**

This paper described a family health worker program in a neighborhood health center, Dr. Martin Luther King, Jr. Health Center in the Bronx over 5 years. The program has been replicated (with modifications) in 16 cities. The first group of family health workers began at the center in 1966. Over time, 72 family health workers were trained. Women made up the majority of the family health workers. The average age ranged from 25 to 53. Educational backgrounds of the family health workers varies: 27 had not completed high school; four received high school equivalency standing during training at the center; 41 have high school diplomas. Anticipated and unexpected problems with the program and personnel were discussed. Training and functions were outlined. An evaluation of the functions and effects of family health workers, implemented by comparing families under the care of family health workers and those not under family health workers, was planned but not carried out.

**University of Arizona. "National Community Health Advisor Study Core Recommendations," prepared for the The Annie E. Casey Foundation (Fall 1997).**

A subset of a study aimed at developing an infrastructure that can strengthen the field as a whole is presented in outline format. A full final report discusses CHW roles and competencies (broken into skills and qualities), CHW evaluation strategies, and career advancement. In addition, sections on CHWs and the changing health care system and establishing coordinated leadership in the CHW field are included.

**M. H. Walker. "Building bridges: Community health outreach worker programs (a practical guide)," *United Hospital Fund of New York* (July 1994).**

This guide outlines issues in developing and operating health outreach worker programs. Included in the document are sections on: goals of CHW programs; roles and tasks of community health workers; recruitment, qualifications, and selection of appropriate candidates; training and evaluation of effective workers; defining the position (team structure, affiliation, scheduling, caseload, advancement, and compensation); and maintaining the outreach staff through ongoing evaluation and retention strategies. Problems and strategies of seven community health programs were woven throughout the document as practical applications of the text.

**R.B. Warnecke, S. Graham, W. Mosher, E. Montgomery, W.E. Schotz. "Contact with health guides and use of health services among blacks in Buffalo," *Public Health Reports* 90, no. 3 (May- June 1975): 213-22.**

This articles discussed the extent to which contact with a health guide (versus other sources of health information like media or acquaintances) was associated with use of eight services (well-

baby clinic, Planned Parenthood, public health nurse, immunization, rodent control, housing inspector, chest X-ray, dental clinic) in the sample area. Study results were consistent with previous research showing that personal contact was more effective in inducing acceptance of new ideas than other sources. A positive association was indicated between the use of all eight services and personal contact with a health guide. Data showed that discussing health with relatives, friends, neighbors, ministers, or druggist was also positively correlated to the use of all (except chest X-ray) services.

**W.A. Wingert, W. Larson, D.B. Friedman. "Indigenous health aides as counselors to parents about nutrition," *Public Health Reports* 84 (1969): 328-332.**

This article described a study that was designed to determine if indigenous health aides could: 1) successfully give brief nutrition information and counsel parents about iron deficiency anemia; and 2) compare health aides effectiveness to middle class professionals (second-year medical students). Results indicated that the health aides transmitted the information as capably as the medical students.

**A. Witmer, S.D. Seifer, L. Finocchio, J. Leslie, E.H. O'Neil. "Community health Yorkers: Integral members of the health care work force," *American Journal of Public Health* 85, no. 8 (August 1995): 1055-8.**

This article suggested that **CHWs** can increase access to care and encourage appropriate use of health resources. This was accomplished by providing outreach and cultural linkages between communities and delivery systems. Health education, screening, detection, and basic emergency care provided by **CHWs** reduced health care costs. An improvement in quality was observed as **CHWs** contributed to patient provider communication, continuity of care, and consumer protection. It suggested that programs should share information, increase program support and evaluation, and promote continuing education to expand the use of **CHWs** and better integrate them into the health care delivery system.



APPENDIX B

ALAMEDA COUNTY HEALTH CARE FOR THE HOMELESS PROGRAM  
CASE STUDY



## THE ALAMEDA COUNTY HEALTH CARE FOR THE HOMELESS PROGRAM

The Alameda County Health Care for the Homeless Program (Alameda) operates an outreach program staffed by Community Health Workers (**CHWs**) to carry out case-management activities for the homeless population of Alameda County, California. Interface with **CHWs** ensures that **clients** receive culturally sensitive, community-based health services, and establishes links between the homeless and providers.

The Center for Health Policy Research was asked by the Bureau of Primary Health Care (BPHC) to study the use of **CHAs** in Bureau-funded programs. In particular, this evaluation is interested in the impact **CHAs** can have on patient access to services; proper utilization of services; and patient knowledge and behavior.

### BACKGROUND

The Alameda Health Care for the Homeless Program is a program of the Alameda County Public Health Department (ACPHD) within the Division of Community Health Services. The program is located in Oakland and provides comprehensive and interdisciplinary health services to the homeless people of the county.

Alameda uses a mobile health services van combined with clinic-based primary care to deliver program services to its clients. A wide array of service providers (operated through Alameda County, community health centers, community-based alcohol and drug programs; and County of Alameda agency and departments)\* render care as part of a memorandum of agreement or subcontract. This comprehensive and extensive approach ensures complete and holistic health and support services for homeless people. All Alameda operations stem from a crowded office

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<sup>8</sup> Alameda County agencies and departments: Behavioral Care, Agency Administration, Medical Center - Highland/Fairmont, Office of AIDS Administration, Oakland Healthy Stan, Ambulatory Care, Public Health Nursing. Community Health Centers: Berkeley Community Health Project, La Clinica de la Raza, Valley Community Health Center, East Bay Native American Health Center, Lifelong Native American Health Center, West Oakland Health Center, East Oakland Health Center, Tti-City Health Center. Community-based alcohol and drug programs: East Oakland Recovery Center, Second Chance, Inc.. City of Oakland agencies and departments: City of Berkeley Health Department, City of Oakland Office of Housing and Neighborhood Development. Source: Project Period Renewal, p. 13.

in Oakland, sharing the building with other **social agencies** in a poor part of the city. The executive and administrative staff work from this building on a full-time basis, and the **CHWs** process case-management paperwork, use telephones and computers, and occasionally meet with clients in this building.

The Alameda service area, all of Alameda County, is geographically large and ethnically diverse. Covering 812 square miles, Alameda County is bordered on the west by the **San Francisco Bay** and extends from Berkeley and Oakland in the north to Fremont in the **south** and Livermore in the east. Fourteen incorporated cities and a number of unincorporated communities make up Alameda County. More than 1.3 million people live in the county, making it California's seventh most populous county. Nearly **half** the county's residents are Black, Hispanic, Asian or Native American (Exhibit 1). Since homeless people in Alameda County are disproportionately racial/ethnic minorities, more than three-quarters of Alameda's clients are racial/ethnic minorities (Exhibit 2)

**EXHIBIT 1**  
**Race/Ethnic Composition**  
**Alameda County, 1996**

Caucasian	53%
African American	17%
Hispanic	14%
Asian-Pacific Islander	14%
Native American	<1%

Source: Alameda County Government

**EXHIBIT 2**  
**6,907 Users of Alameda, 1996**

Asian/Pacific Islander	2%
Black (not Hispanic)	51%
American Indian/Alaska Native	4%
White (not Hispanic)	26%
Hispanic (all races)	11%
<b>Unreported/Unknown</b>	6%

Source: 1996 UDS

In 1996 Alameda reported 24,737 **encounters distributed** among 6,907 users. A total of 13.6 full-time-equivalents (**FTEs**) contribute to client care: 0.2 FTE physicians; **2.7** FTE medical care services; 0.5 **FTE** mental health specialist services; 6 **FTE** enabling services and 3.2 FTE administration and facility.

The health care needs of Alameda clients correspond to the conditions that accompany homelessness: poverty, stress, violence, and lack of proper nutrition, clothing, and shelter. Primary care needs (**e.g.**, hypertension, respiratory disease, skin disorders), followed by drug and alcohol abuse services and mental health services, make up the bulk of program encounters at Alameda.

Alameda operates with a range of funding sources. A federal grant, BPHC Health Care for the Homeless (Section 340) is Alameda's primary funding source. Smaller safety net grants such as FEMA (Federal Emergency Management Assistance) provide up to **\$3,000** per year in emergency food and motel vouchers. The State of California, City of Oakland, and ACPHD **Office of AIDS** resources help fund outreach, case-management, and health education activities. New grants from the U.S. Department of Housing and **Urban** Development (HUD), Oakland Healthy Start and the ACPHD Office of **AIDS** provide money for permanent housing assistance for families, comprehensive support services and emergency housing, respectively. **In** addition, resources in the form of placement of **AmeriCorps** members come from the ACPHD Office of **AIDS** and the Robert Wood Johnson Foundation/HUD-funded Homeless Families Program. The Levi Strauss Foundation gave supplemental funds to extend some TB Stop Team activities. Medicaid payments make up less than two percent of Alameda's revenues.

**Homelessness** is a considerable problem in Alameda County. Authorities estimate that homeless people number between 9,000 and 15,000 on any given day. Since homelessness is a transitional state (some homeless people become housed while others fall into homelessness), yearly calculations are also useful for viewing the scope of the problem. Between **30,000** and **60,000** are homeless at some time over the span of a year.

Low income, unemployment, physical **and mental** health problems, alcohol and drug abuse, as well as infrastructure inefficiencies are among the factors that contribute to homelessness. Ethnic minorities are often at risk of homelessness, since English language difficulties and immigration status set up barriers to accessing health care and public assistance.

The Bay area has a strong economic base (business, technology and industry), but Alameda County has more inhabitants living **in** poverty with low wages than any other Bay area county. According to the most recent Census data, over **100,000** Alameda County citizens live at or below the poverty. More than 40,000 people were unemployed in 1995.

Although Alameda County enjoys a wide scope of both public and private health and supportive services, most are either filled to capacity, difficult to access, or are not designed to accommodate the complex needs of a homeless individual or family. The public housing infrastructure, with 4,500 units, can provide for only about 20 percent of the county's eligible residents. The shelter system, with only **834** beds, is insufficient for the number of homeless in need of temporary housing. **Difficulty** in obtaining financial and other public entitlements, and fragmentation of health care and related services, are further obstacles faced by homeless people. A cut in general assistance (from \$306 to **\$212/month**), for example, along with the highest home prices anywhere in the nation, hits the county's homeless hard.

Alameda County has a two-plan model of Medicaid reform in operation under California's 19 **15(b)** Medicaid waiver. Alameda County mandates that AFDC Medicaid (Medical) recipients enroll in managed care plans. Aged, blind, disabled individuals, and the SSI population, however, have the choice of joining a managed care **plan** or remaining in the fee-for-service plan. Alameda Alliance for Health (a local, county-developed plan of safety-net providers) and Blue Cross (a commercial "mainstream" plan) compete for **MediCal** beneficiaries in the county. It is important to note, however, that large numbers of homeless are not on Medical. Only 27% of Alameda's clients are Medical beneficiaries.

In California, county governments are **financially** responsible for providing health care to the uninsured who do not qualify for Medical. In the face of the two-plan model and a strong commitment to serving the underserved, Alameda County created an independent not-for-profit HMO for Medical contracting. In this way, essential safety net components of the county health structure were maintained. Alameda contracts with Alameda County Medical Center and with community health clinics for primary care and urgent care services for homeless people.

Alameda County has been a leader in accepting responsibilities for the indigent in creative ways. It has designed creative programs for vulnerable populations such as homeless people and persons with HIV/AIDS. The agency director has a strong belief in using assets within the community and in moving resources into the community.

#### **Alameda Community Health Worker Program.**

Since its inception in 1988 Alameda has relied on **CHWs** to conduct outreach and **medical/social** case-management services. The concept of doing outreach and case-management emerged from the realization that the current system did not appropriately meet the unique needs of the homeless population. **CHWs** work on the van, in homeless shelters, at meal sites, in parks, and in **the** streets to effectively reach their target population – homeless people.

Alameda uses seven **FTEs** as **CHWs**. Five **CHWs** are full-time and are employed under the Alameda County Public Health Department **civil** service system. Two **CHWs** are **AmeriCorps** volunteers. The **CHWs** come from different ethnic backgrounds: one is **African-American**, one is Hispanic, one is Asian, and the rest are non-Hispanic white. Three **CHWs** are male and four are female. Most **CHWs** are between the ages of **25** and **57**; the two **AmeriCorps** volunteers are the youngest outreach workers.

**BPHC's** criteria for this study included, the parameter that **CHWs** be from the community. Alameda County employment requirements make it difficult to find currently homeless

applicants that meet the necessary prerequisite **qualifications** to be a CHW. To compensate, Alameda employs **CHWs** who are ethnically similar to their clients, speak the languages of their clients, and are sensitive to the conditions of the homeless. Life experiences such as previous homelessness or addiction, living in cities, travel, and training have given Alameda **CHWs** the skills necessary to serve homeless people. **CHWs** are hired for strong communication skills, maturity, flexibility, dedication, and ability to negotiate the health structure of the county.

On average, we estimate that it costs \$64,866 for a full-time-equivalent Community Health Worker after accounting for such costs as salary, fringe benefits, supervision, training, administration, and overhead (the actual cost of a CHW is between \$36,670 and \$39,860 without benefits). This amount is significantly higher than we found in other programs, largely because the salary scales for **CHWs** in the Alameda County civil service system are much higher than in most community-based organizations; fringe benefits are also broader. In part the compensation reflects the high cost of living in the Bay area, in part a belief that, just because a program is for the poor, does not mean that it must pay poverty-level wages.

The underlying purpose of the CHW program is to link homeless people to the services they need. The **CHWs** have similar roles and responsibilities, but carry them out in response to different goals. The goals are related to either general health promotion and disease prevention, HIV/AIDS prevention, or TB prevention.

The range of activities performed by **CHWs** is broad and varied depending on the needs of the client:

- **Conduct outreach activities:** **CHWs perform** outreach in conjunction with travel with a large mobile health van. Outreach done from the van facilitates **CHWs'** ability to make initial client contact, to educate clients on health topics and services available to them, and to begin to build rapport. **CHWs** are assigned to van routes in one of three geographic regions (South County, Berkeley, Oakland), and travel with the van nearly everyday. The van regularly visits sites that include emergency shelters, stable clinic sites, alcohol and drug recovery centers, and city parks. The van offers access to basic medical care on a drop-in basis and is also facilitated by the shelter or center staff. Referrals to ongoing primary and specialty care are often initiated from contact

on the van. The van is staffed by **CHWs** (one or more), a mental health specialist, a primary care giver (family nurse practitioner or physician assistant, physician, or public health nurse), and a medical clerk who doubles as the van driver. The **CHWs** help the providers triage the walk-in patients according to urgency of need.

- **Provide case-management services:** Case-management involves the identification of client needs and assisting the client in accessing needs. Front-line contact gives **CHWs** the ability to work with clients on ranking the medical and social needs of the client. Referrals are available for primary care (including **TB, HIV** and STD care referrals), alcohol and drug services, mental health services, and support services (e.g., housing, clothing, legal assistance, food assistance, employment assistance, transportation). This duty also includes the responsibility to conduct client follow-up on referrals.
- **Educate clients on public assistance programs:** Some clients are eligible for public assistance but are unaware of their eligibility or are unfamiliar with the application process. **CHAs** provide client counseling and education on the different programs and assist clients by providing addresses, phone numbers, or by filling out the forms.
- **Serve as patient advocate and directly facilitate client access to services:** A crucial component of case-management is the **CHWs'** ability to negotiate the health care system on behalf of the client.
- **Make regular visits to shelters and to health care delivery sites:** **CHAs** are responsible for the initial identification of the health care needs of homeless individuals. These visits also serve to establish important links to shelter and health care staff and maintain good working relationships.

Previous experience in case-management is not a **firm** prerequisite for work as a CHW. Training for **CHWs** is done prior to going into the field, and continues throughout employment at Alameda. **New CHAs** receive a short orientation in issues facing the homeless, confidentiality procedures and issues, and in triage and intake methods. They are also taught about the different program providers and other services available to homeless people, and have opportunities to visit program providers. Additional training is acquired by shadowing experienced **CHWs** on the job. Several **CHWs** have participated in a training provided by the Institute for Community Health Outreach at the University of California at San Francisco. **AmeriCorps** volunteers received the following training from **AmeriCorps** prior to beginning work at Alameda: a two-week certificate training, conflict resolution, grant writing, communications skills, cultural

diversity and awareness, resume writing, and CPR. All CHWs learn new techniques and subject matter from one another by periodically consulting with each other, their manager, and the health professionals on cases. Only one of the CHWs is academically trained as a case manager; several have substance abuse and HIV/AIDS counseling credentials.

Strong management is a critical element of the CHW program's success. CHWs are directly managed by a field supervisor. The program is overseen by the Alameda executive director. The field supervisor determines CHW sites, coordinates CHW activities, does site review for new van locations, and works in a CHW capacity as time allows. The field supervisor also plays an important role in the selection of CHWs. Management staff at Alameda practice an open-door policy and strive to respond to the professional needs of CHWs. This includes a commitment to financial support, being available to listen to CHWs' concerns, and providing opportunities for growth and education.

Retention of CHWs is not a problem for Alameda. The length of employment as a CHW ranges from nine months to nine years. When it is necessary to recruit for the CHW position, a vacancy announcement is posted with the Alameda County Public Health Department. News of the vacancy is also spread via word of mouth to other human services organizations. Individuals with prior experience working with homeless people or personal experience with homelessness are encouraged to apply for CHW positions. Because the civil service pay scale for CHWs is above that of community-based organizations, there is no shortage of applicants. In a recent recruiting effort, 10 qualified candidates were identified.

### **CHW Program Impact**

Although descriptive data on the CHW' program are obtainable, outcome data are virtually unobtainable. Documentation of the numbers of homeless seen, the types of problems they had, and what action was taken by the CHWs or contracted organization is readily available

in program forms and reporting system. It is, however, difficult to link improved health status or utilization to the CHW program.

There is no automated system to track a homeless person through the Alameda referral process. None of the manual tracking systems in place among service providers are the same. Only reviewing the client charts at **all** contracting organizations would indicate final outcome of CHW contact. However, even this is difficult because of the lack of unique patient identifiers and the reluctance of homeless persons to divulge personal information such as Social Security numbers.

Impact measurements for behavior change and attitude are always difficult to demonstrate, and the multitude of issues facing the homeless population require a large dose of effort and resources expended to produce a small response, which may not be measurable. For example, one client confided that a worker had pursued him regularly for two years before the client agreed to seek treatment for substance abuse. Nonetheless, the data collected are encouraging.

### **Patient Access to Service**

Below, examples from case studies and program documentation show success in increasing patients' access to service.

- Alameda tracks case-management intakes completed by each **CHW**. HIV/AIDS data are collected by **AmeriCorps** members and entered into Alameda's Management Information System. The more than 5,500 clients contacted are individuals who would not typically seek medical care in a traditional setting. Before there can be the expectation of improved medical condition, there needs to be an initial contact made; **CHWs** enlist clients by doing outreach. The table below shows the number of case-management intakes completed during 1996.

**EXHIBIT 3**  
**CHW Case-Management Intakes**  
**January - December, 1996**

CHW	Number of Intakes
1	413
2	621
3	1,975
4	2,040
5	470
<b>TOTAL</b>	<b>5,519</b>
<b>Source: Alameda County CHA Case Encounters</b>	

- Contact with **CHWs** often allows clients to receive care for a problem before it becomes acute, reducing costs to the health care system. Records of types and numbers treated on the van show potential diversions from emergency departments.
- A routine and consistent mobile health van schedule improves clients' ability to access triage services. The van is parked in sites that are easily reached by the target population, thus removing a main barrier to receiving medical attention - transportation.
- The van provides one-stop care in many cases. Both the on-the-spot triage available and the linkage with other organizations give the homeless a chance to meet their needs. This is vital for clients who may be reluctant about going elsewhere to receive help.
- Encouragement, call backs, personal street contact to remind and convey urgency, making appointments right then, provision of bus tickets or taxi vouchers, and accompanying clients to visits leads to higher care-received rates.
- **Culturally** appropriate care has been provided to a population that requires extra assistance to **access** services. **CHWs** provide language translation (Spanish, Chinese),- and an understanding of the realities of life as a homeless client.

- Many homeless people have grown to distrust **the established** medical infrastructure. **CHWs** offer something a clinic or hospital cannot by meeting clients on their home grounds, and serving them with empathy and compassion.
- Unmet needs such as food and shelter often push the seeking of health care down the priority list. **CHWs** work directly with clients to both identify critical health needs and encourage treatment. The range of services offered by Alameda also guarantees that other needs are met.
- The treatment of one homeless person can prevent the spread of infectious disease to many (e.g., treating TB can reduce the risk of spreading to others at a shelter).
- Alameda secures some appointment spots that would otherwise **be** unavailable by interface with the contracting and other organizations. Collaboration **between** the Alameda **CHWs** and the Alameda County Behavioral Care Department mental health specialist on the mobile health van, for example, ensures Alameda clients access to a mental health system that is virtually closed to any individual not diagnosed prior to 1988 as a result of severe cuts in funding and services.
- **In** 1996, **CHWs** identified four homeless women who were subsequently diagnosed with breast cancer.
- **CHWs** recorded 14 immunization encounters in 1996. Vaccinations included **DPT**, polio, influenza, Hepatitis B, and MMR.

## Utilization of Services

The CHW program has had additional impacts on the homeless populations' utilization of services.

- Triage is performed on the mobile health van, and provides a **first** line of treatment.
- The Tuberculosis (**TB**) Stop Team, led by a CHW, has impressive statistics from the period of time between October 1994 and July 1996. The extent of TB and **STDs/AIDs** among homeless people was demonstrated to county officials, homeless people were screened, and treatment referrals were given.

### Screenings and follow-up at shelters/ hotels/ centers:

- Administered 2217 PPD tests
- Read PPD results for 1740 persons (78%)
- Referred 142 positive readings for X-ray (8.3%)
- Referred 125 PPD positive homeless people for X-rays
- Assured 110 completed X-rays (88%) (still looking for 15)
- Identified 1 case with Class **III** "active" TB
- Started 24 people on **INH** preventive therapy; documented 4 people completed **INH** therapy

### TB Stop Team/STD CHW van outings

- Placed 629 tests
  - Read 362 results (58%)
  - Read 44 positive tests (12%)
  - Successfully followed through on 33 cases
  - Identified 1 active case
- 
- Doctors at affiliated hospitals or clinics will at times enlist **CHWs** to locate "lost" patients.
  - Tokens and transportation vouchers are available from **CHWs** so that clients can go to their medical visit.

- **CHWs** have unique information on the needs of homeless people that can be shared with contracting agencies in monthly regional meetings. Meetings allow **CHWs**, area providers and clinics to network, share ideas, and field questions on care for the homeless. Shared information facilitates a more closely followed case, and improves overall understanding of the complexities of a particular client (e.g., a CHW trained emergency room nursing staff at Summit Hospital on homeless awareness).
- Contracting organizations document appointments and outcomes for clients who were referred as a result of **CHWs** contact. Each month, a list is sent back to Alameda. They document Alameda clients who return for visits. However, clients who do not report the referral may not be captured in Alameda's data system, especially if they are Medical eligible.
- Because of the range of contracting organizations, homeless clients are given access to a greater continuum of care and a more holistic approach to treatment.
- Case reports document individual successes: clients go from homelessness to sheltered, sick to healthy, substance abusing to recovery, and jobless to employed. (Client interviews, focus groups.)
- A **CHW** who specializes in entitlements helps clients apply for AFDC, Medical, General Assistance, and Supplemental Security Income (**SSI**). He increases utilization of the public and social service entitlements by serving as a liaison with city, county, and state offices. He counsels clients on regulations and expectations, does medical records requests, and assists clients with the appeal process for SSI.

## **Patient Knowledge/Behavior**

- **CHWs** promote a process that includes client involvement in ranking needs and treatment plans. This results in the clients' greater ability to help themselves and increases **self-sufficiency**. Clients claim (in interviews and focus groups) a renewed sense of self-worth and dignity
- Anecdotal evidence indicates that over time more clients are returning for Safer Sex Kits. Kits include adult sized tooth brush, tooth paste, water based lubricant, two latex condoms, two flavored latex condoms, and printed educational materials on topics such as **HIV/AIDS** prevention and free testing, **drug addiction**, referral services, instructions on how to clean needles and use condoms.
- Clients repeat back what was taught during previous education sessions.
- People are asking more complicated questions about **HIV/AIDS** and TB issues, demonstrating increased awareness and knowledge base.
- From 10/94-7/96 the **TB/STOP** Team conducted 81 educational events/workshops for shelter and referral agencies.

## **LESSONS LEARNED**

**Effective case-management hinges upon the CHWs' ability to establish rapport.** Personal qualities are as important as case-management skills. Intake skills and case-management can often be taught. Individual traits such as strong communication skills, determination, pragmatism, logic and compassion must be brought to the job.

**Homelessness crosses demographic categories.** CHWs do not have to be of the same demographic subgroup (such as race, age, sex) as the client to do appropriate outreach or case-management. Homelessness presents a unique set of needs that extends beyond demographics.

**Clients like working with CHWs who were previously homeless or substance abusing.** Eight Alameda clients participating in focus group discussion expressed appreciation for the street smarts that come from the experience of being homeless. Guidelines from contracting organization and Alameda staff suggest several strategies when using previously homeless or substance abusing individuals as CHWs: the person must recognize the process used to leave their situation, and be able to teach it to others; chronological distance from the time the person was homeless or substance abusing is also important.

**Identification and reputation in the community is important.** Alameda has an excellent reputation for competence and compassion for their clients. This not only is vital to collaboration with other agencies, but also for increased client trust and contact.

**Alameda has good results with paying CHWs well.** Although CHWs are strongly committed to serving the homeless population, good salaries improve job satisfaction, and CHWs tend to remain with the organization longer. The continuity is less disruptive to the clients as well as the organizations. If salaries are too low, staff themselves are in financial jeopardy, which their performance and goals.

**Working with the homeless population is difficult.** It is vital to incorporate administrative and management tools into the program to combat burnout. Administrators need to lay out guidelines about scheduling contact hours, limits to where and when clients can reach CHWs (e.g., CHWs should not give out their home phone number).

**CHWs must constantly upgrade their skills.** Certificate programs, conferences, and training sessions are important to maintain CHWs' knowledge on, current issues and new tools and resources for serving the homeless.

**Good care is comprehensive and integrated.** No one service is sufficient for the homeless population. Their needs are complicated and extensive.

**A funding stream is required to pay for CHW services.** A medical model **cannot** pay for the types of services offered by **CHWs**. Alternate resources are needed to create and operate a program that serves clients by providing outreach and case-management.

**Systems are required to measure impact.** Because resources are limited, **funders** want documentation that links intervention to measurable outcome and impact. Setting up a system to achieve this will require investment of public funds.

**Policymakers and program managers must recognize the intensity of effort and services required to appropriately provide care to the homeless and other vulnerable populations.** **Progress** in this arena will demand not only resources but the realization that accomplishments are small and challenges are great.

**CHWs can coordinate services for clients only if those services are available.** This means investments in, for example, substance abuse and mental health services, as well as services not often defined as “health care” (e.g., job training and available housing suitable for families).

ALAMEDA COUNTY HEALTH CARE **FOR** THE HOMELESS PROGRAM  
KEY INFORMANTS INTERVIEWED

Executive Director  
Support Services Team Leader, Field Supervisor  
5 Community Health Workers  
2 **AmeriCorps** Participants  
8 Clients  
2 Physician Assistants  
Mental Health Specialist  
Homeless Families Program Director  
Stable Site Clinic Coordinator  
Secretary, Officer Manager  
Fiscal/Contracts Manager  
Director of Case-management, Homeless Families Program  
Director, Alameda County Public Health Department  
Health Officer, Alameda County Public Health Department  
Financial Services Specialist, Alameda County Public Health Department  
Physician/Clinical Director, Alameda County Public Health Department  
Agency Director, Alameda County Public Health Department  
Accounting Manager, Alameda County Public Health Department  
Alameda County Homeless Coordinator, Alameda County Public Health Department  
Community Health Services Division Director, Alameda County Public Health Department  
Case Manager, Substance Abuse Coord., St. Mary's Senior Ctr, Homeless Services for Seniors  
Shelter Director, East Oakland Community Project  
Public Health Nurse, Healthy Infant Program  
Case Manager, Community Clinic  
Mental Health Coordinator, Berkeley Building Opportunities for Self-Sufficiency  
Executive Director, Operation Dignity  
Coordinator, Berkeley Shelter + Care  
Case Manager, Salvation Army  
Case Manager, Fairmont Hospital  
Director, Healthy Infant Program, Alameda County Public Health Department

ALAMEDA HEALTH CARE FOR **THE** HOMELESS PROGRAM  
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APPENDIX C

BROWNSVILLE COMMUNITY HEALTH CENTER  
CASE STUDY



## BROWNSVILLE **COMMUNITY HEALTH** CENTER

The Brownsville Community Health- Center (Brownsville) has a Community Health Worker (CHW) program, called *Mano A Mano*. This program **utilizes** individuals from the community who work to provide informal community-based, health-related services and who establish vital links between community-based health providers and community members.

The Center for Health Policy Research was asked by the Bureau of Primary Health Care (BPHC) to study the use of **CHWs** in Bureau-funded programs. The study concentrates on the impact that **CHWs** have on patient access to services; proper use of services; and patient knowledge and behavior. It also seeks to share the lessons that can be learned from existing CHW programs for use by providers and communities who are considering initiation of similar programs.

### BACKGROUND

Brownsville Community Health Center is in Cameron County, Texas, on the border with Mexico. The city is directly across the Rio Grande River from its sister city, Matamoros, Tamaulipas, Mexico. While the two cities are separated by a river, they are culturally, ethnically and geographically a single community.

The population is mostly minority; 82 percent of Cameron County is Hispanic. The population is also young; over 35 percent are under the age of 18. Many of the region's residents do not speak English fluently. Forty-seven percent of **school-aged** children are limited in English proficiency with 40 percent (16,000) children participating in the school **district's** bilingual/English as a second language program.

The Lower Rio Grande Valley (made up of Cameron, Hidalgo, Starr and **Willacy** Counties) is one of the fastest growing areas in Texas and in the United States. From 1980 to

1990 the growth rate of Cameron County (24 **percent**) is higher than for the Lower Valley in general (23 percent) and for Texas (14 percent). This growth can, in part, be attributed to the development of *maquiladora* industries. *Maquiladoras*, or “twin plants” are two plants (one in Mexico and one in the US) established under single management. In response to the North American Free Trade Agreement (NAFTA), typically the US plant supplies parts to the Mexican plant, which assembles the products. It is estimated that there may be 200 *maquiladora* plants in Tamaulipas.

The local economy also relies heavily on agriculture. Products such as citrus, cotton, sugar cane, corn and vegetables are grown in Cameron County. Much of the land in the county is under constant cultivation, and a variety of pesticides are continually in use, increasing the incidence of pesticide exposure and poisonings.

Poverty is a serious problem in the Lower Rio Grande Valley. Forty-six **percent** of the population is at or below federal poverty guidelines. Census information indicates that 16 percent (4,822) of Cameron County’s households had an income of less than \$5,000 in 1989; another 16 percent (5,817) made between \$5,000 and \$9,999. The median household income for southern Cameron County is \$18,790.

Most of the jobs available to the area’s residents are low wage and require few skills. High unemployment is also a factor: the average unemployment rate in Brownsville in 1996 was approximately 13 percent, compared to 6 percent for Texas and 5.5 percent for the US. **Low** education **levels** contribute to the high unemployment rate; 41 percent of adults over 25 have less than a ninth-grade education.

Families living in the *colonias* experience these conditions more acutely. The unincorporated *colonias* are physically and legally isolated from neighboring towns. They usually have substandard housing, inadequate plumbing and sewage disposal systems, as well as inadequate access to clean water. **There** is no access to the *colonias* via public transportation,

and often roads are unpaved and impassable after **it rains**.<sup>9</sup> Twenty percent of *colonia* residents are unemployed; approximately one third have per capita incomes of less than **\$6,000**; and more than 50 percent of adults have less than a ninth-grade education. *Colonia* residents are twice as likely to have skin infections, intestinal disorders, hepatitis A, malnutrition, and pulmonary tuberculosis. They have several times the national average of birth defects.

Cameron County's only public hospital, located in Harlingen (approximately 25 miles away), offers limited inpatient and specialty outpatient services. Those indigent or uninsured patients requiring more intricate services must be referred either to a university hospital in Galveston (375 miles and eight hours away) or to a facility in Houston (355 miles away). Access to the two private, for-profit hospitals in Brownsville is difficult for indigent patients. There is also a shortage of physicians in the Valley. The ratio of primary care physicians to population is 43 per 100,000, compared to a statewide rate of 93.

In addition to having limited access to care, many residents do not have the means to pay for the care they do receive. More than 30 percent of the population lacks any form of health insurance. Since many of those who are fully employed and covered by their employer's health plan cannot afford to pay the required premiums and deductibles, **they** forgo coverage. **Less** than 20 percent of Cameron County's population receives monthly Medicaid benefits, despite the high rate of poverty there.

Acute and communicable diseases are more prevalent in the Valley than in other parts of Texas. For example, the rate of hepatitis A was 31 per 100,000 in 1991 versus a state level of 15; tuberculosis is more than twice as prevalent in Cameron County as in Texas (34 per 100,000 versus 14). Hispanics in the Valley experience greater incidence of **disease: Hispanic** women are three times as likely **to have** cervical cancer than non-Hispanic Whites; Hispanics account for 40 percent of tuberculosis cases; and 70 percent of Hispanic women over age 55 experience gall bladder disease, diabetes, hypertension and obesity.

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<sup>9</sup> *As observed directly by study team members.*

Perinatal health status of county residents is **equally** poor. A 1991 study revealed that 58 percent of women in the Lower Valley received prenatal care in the first trimester of pregnancy, less than the statewide rate of 65 percent. Between 30 and **50** percent of women who deliver at the two Brownsville hospitals have received little or no **prenatal** care. Hispanics in Cameron County experience a higher infant mortality rate than Hispanics in Texas (10 per 1,000 resident live births versus 8.7). This infant mortality rate is higher than that **of Anglos** in the county.

Teen pregnancy is also high in Cameron County. In 1994 the birth rate to teenagers aged 15-19 was 97 per 1,000 females, versus the nationwide number of 59. In 1995 nearly 1,000 infants were born to mothers under the age of 19; 35 of those infants were born **to** girls under the age of 15; 13 percent of those births were at least the second child born to that mother.

While Medicaid managed care has been implemented under a 1915(b) waiver in San Antonio, Austin, Lubbock and Houston; it has not yet affected the Lower Rio **Grande Valley**. However, the state is currently considering whether **this** area is suitable for a demonstration project. Some observers speculate that a pilot project could be implemented in 1999. In addition, the state's 1115 waiver request for a statewide Medicaid managed care program is still pending.

### **Brownsville Community Health Center**

The health center was founded approximately 50 years ago, funded by the city of Brownsville to provide volunteer health care services to low-income residents. Brownsville became a free-standing non-profit corporation in 1987. The center receives a Migrant Health Center grant, a Community Health Center grant and Comprehensive Perinatal Care Program funds from the BPHC; approximately 39 percent of Brownsville's operational funds come from these sources. The remaining necessary funds come from state and local agencies, federal and national philanthropic organizations, third-party insurance payments, and sliding fees from Brownsville's users.

The health center provides a full range of services including general primary medical care, diagnostic laboratory and X-ray procedures, gynecological and obstetrical care, comprehensive dental services, mental health and substance abuse services, and case-management. In 1996 Brownsville reported more than **70,000** medical service encounters and nearly 10,000 users; and approximately 7,500 dental service encounters and more than 4,000 users. The health center is staffed by 12.2 full time equivalent (**FTE**) physicians, 4 **FTE** physician assistants/nurse practitioners, 2.15 **FTE** dentists and **.04 FTE** dental hygienists.

Patients who visit Brownsville are among the poorest in the area. Nearly 70 percent of the health center's patients fall below 100 percent of the federal poverty level.

**EXHIBIT 1**  
**SOCIOECONOMIC LEVELS OF BROWNSVILLE PATIENTS**

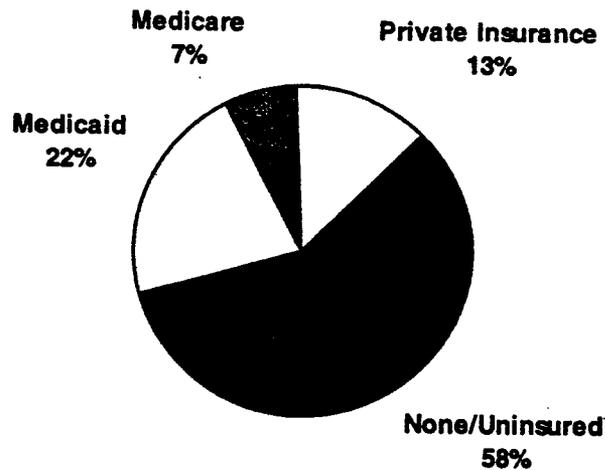
<b>Income As Percent of Poverty Level</b>	<b>Number of Users</b>	<b>Percent of Users</b>
<b>100% and below</b>	<b>24,306</b>	<b>69</b>
<b>101-150%</b>	<b>3,778</b>	<b>11</b>
<b>151-200%</b>	<b>298</b>	<b>&lt;1</b>
<b>Over 200%</b>	<b>656</b>	<b>2</b>
<b>Unknown</b>	<b>6,170</b>	<b>18</b>
<b>TOTAL</b>	<b>35,208</b>	<b>100</b>

Source: Brownsville UDS Data, January 1, 1996 - December 31, 1996

The overwhelming majority of Brownsville's patients are Hispanic (98 percent); one percent are non-Hispanic white. Fifty percent of the health center's patients require interpretation services.

More than half of Brownsville's patients are uninsured.. A significant portion of patients are in the "minimum pay" category and contribute \$15 per visit. Less than a third are covered by publicly-funded insurance (Medicare and Medicaid).

**EXHIBIT 2**  
**BROWNSVILLE PAYMENT SOURCES**



Source: BCHC UDS Data January 1, 1996 - December 31, 1996

**BROWNSVILLE'S COMMUNITY HEALTH WORKER PROGRAM**

Brownsville sponsors *Mano A Mano*, (Hand-in-Hand) a CHW program in which *promotoras* are utilized to promote the health of the community. The *promotoras* are involved with identifying pregnant women and helping them gain access to prenatal care; educating the community on a comprehensive array of health conditions such as diabetes, tuberculosis, cancer, HIV/AIDS, etc.; and referring clients to services available in the community.

The *Mano A Mano* program was created by the One Border Foundation<sup>10</sup> to address the unusually high rates of neural tube defects that occurred in Brownsville in 1991. Within a 36-hour period three infants were born with anencephaly,<sup>11</sup> this event occurred again several months

<sup>10</sup> A separate corporation established by Brownsville for its less-traditional functions.

<sup>11</sup> Anencephaly is a condition in which all, or a portion of the brain and surrounding cranial structure is missing. This condition is incompatible with life; infants who do come to term, are usually stillborn or die shortly after birth. In rare instances patients may live for several days or for a few weeks.

later at another Brownsville hospital. The mission of the One Border Foundation is to support research, services, outreach, and advocacy to address health problems on both sides of the US-Mexico border. While the program initially focused on improving the community's **understanding** about the need for prenatal care and **increasing women's** access to these services, the program has expanded to address the need for health and social service information and referrals.

The *Mano A Mano* program was originally funded by the March of Dimes Birth Defects Foundation. That funding has subsequently ended, and the program is currently funded through a patchwork of support from Brownsville, the VISTA program, state and local agencies, the National Cancer Institute through a grant to the University of Texas Medical Center, and charitable contributions.

The program's **first** objective was to identify barriers to women's receipt of prenatal care. After conducting an extensive community needs assessment that included surveys of women of childbearing age and interviews with stakeholders, a number of barriers were revealed. Women cited a lack of transportation, financial constraints, lack of knowledge about health care and health maintenance and being burdened by other problems such as domestic violence and lack of emotional support as reasons for not obtaining prenatal care.

Taking these barriers into consideration, as well as the common cultures of those on both sides of the border, the *Mano A Mano* program was created as a bi-national, community-based program that uses members of the community to assist in improving the health status of their neighbors. The **promotoras** provide transportation, support, referrals to **services** and practical information to members of the community.

In the 1997 program year there are four VISTA-supported **promotoras**, **30** unpaid volunteer **promotorus** (who receive a \$15 monthly stipend), a project coordinator and assistant coordinator on the Brownsville side; in Matamoros there are 60 **volunteer promotorus** and a coordinator. In previous years there were 12 **AmeriCorps promotorus** in Brownsville; however,

most were let go when the AmeriCorps funding **ceased**. Four of these former **AmeriCorps** members have remained and are funded through the VISTA program.

The VISTA *promotorus* are all female, middle aged, Hispanic, and all speak Spanish, while some have limited proficiency in English. Most have been with the program since its inception. Most of the *promotorus* live in the *colonias* or *barrios* in the target areas. In the past men have successfully trained and worked **as promotoras**; however, there are none in the VISTA group or among the volunteers today. The volunteer groups on both sides of the border vary in age.

Since the VISTA *promotorus* receive compensation for their work, they each are expected to accomplish at least eight home visits per day, attend weekly meetings and training sessions, and document all their encounters. In exchange for the small monthly stipend, the volunteer *promotorus* are only required to attend one monthly meeting and accomplish as many encounters as time **allows** (usually 20 per month). On average, we estimate that it costs approximately \$23,800 per VISTA *promotoru*.

*The promotorus* are recruited from churches and community groups. The program coordinators routinely ask members of the community to suggest women who are leaders in their neighborhoods and churches. The program looks for women who are seen as role models, who can communicate well with their neighbors, and who are not afraid to interact with women and their families on a one-to-one basis. **It is** interesting to note that one of the VISTA *promotorus*, while considered trustworthy and a leader in her community, was shy and reticent when she joined the program; however, since joining she has emerged as confident and loquacious, a fact that has surprised the program's coordinators and herself. The program's coordinators have learned that community leaders are not always outspoken individuals.

*Promotorus* undergo a comprehensive training that includes the basics of prenatal health care and nutrition, baby care, and child growth and development. They are given information on major health conditions such as breast, cervical and prostate cancer, heart disease and

hypertension; tuberculosis; diabetes and **HIV/AIDS**. They are also equipped to discuss such diverse social problems and services as domestic violence, immigration, employment, child abuse, WIC services, education and substance abuse. In addition, they make referrals to local agencies such as legal aid, English as a second language classes, WIC, family outreach, welfare and Brownsville Community Health Center.

**Promotoras** make home visits, checking up on pregnant women and inquiring about their prenatal visits; they also visit families without a pregnant woman and conduct case-management and case finding. During our visit, the **promotoras** made a routine visit to a family, and while there learned the woman's son is dyslexic; her father is obese and may have hypertension; and discovered that the woman has a friend with a **12-year-old** daughter who cannot speak. The **promotoras** supplied the woman with literature about her son's dyslexia; gave her information about obesity and hypertension, as well as a pamphlet with low-fat recipes her mother can make to help her father; and obtained the name and telephone number of the woman with **the 12-year-old** girl.

In addition to making home visits, the **promotoras** conduct health education presentations. These presentations are commonly done at community centers, churches, grocery stores, malls and in **maquiladora** plants. On rainy days when it is impossible to traverse roads in the **colonias**, the **promotoras** visit women at laundromats and other gathering places.

**The Mano A Mano** program targets women in **specific** communities. The program seeks to impact at least 2,000 low-income Mexican and Mexican-American women of childbearing age (13 to 45) and other residents in six neighborhoods in Brownsville and Matamoros. In Brownsville the program has targeted Cameron Park, a large **colonia** on the outskirts of the city; the Southmost area which lies along the Rio Grande; and Golden Park, which includes both **colonia** and urban areas. Overall 50,000 people reside in these three areas. The program **also** targets three of the poorest **colonias** in Matamoros, which have a population of about **18,000**.

## Program Objectives

The, *Mano A Mano* program has established a number of objectives intended to focus its efforts and assist in measuring the program's accomplishments. For purposes of this case study, the objectives have been reconfigured to comply with the structure of our evaluation: 1) patient access to care; 2) proper use of services; and 3) patient knowledge and behavior.

The *Mano A Mano* program seeks to improve **patients' access to care by:**

- Improving identified pregnant women's access to prenatal care by:
  - offering lay case-management services to identified pregnant women;
  - creating a file on pregnant women requesting the outreach service;
  - providing information on services, eligibility and classes to **all** pregnant women; and
  - providing pregnant women with transportation each month for needed **medical** care, classes and agency visits.
  
- Collaborating with community health and human-services organizations to provide an accessible and understandable network of services for low-income families and individuals by:
  - participating in health fairs which target families in *Mano A Mano* service areas;
  - participating in health and social service agency network meetings and community events; and
  - communicating on a regular basis with all community providers of medical care and related services and keeping *promotoras* apprised of **all** available services.

The program seeks to encourage **proper use of services** by:

- Identifying pregnant women in the targeted areas in Brownsville **and Matamoros** by:
  - conducting 250 home visits per month in targeted areas; and

- distributing *Mano A Mano* information at churches, local businesses and social service agencies. Such materials advertise free mammography screenings, immunizations, etc.

**Mano A Mano** hopes to **improve patients' knowledge and behavior** by:

- Providing health care and social service information to low-income families through:
  - training volunteers about basic health and social service problems and where these services can be secured; and
  - offering information and suggestions when problems or needs have been identified in a home visit.
- Increasing the number of women who breastfeed their infants by:
  - providing information and support to women who wish to breastfeed;
  - referring women to WIC and Infant Nutrition Program counselors for instructions and concerns regarding breastfeeding; and
  - coordinating breastfeeding classes for *Mano A Mano* clients and offering transportation when necessary.
- Educating women about the negative impact of high-risk behavior during pregnancy through:
  - discussing high-risk behavior during home visits; and
  - referring women with identified specific high-risk behaviors to appropriate agencies or providers.

## Challenges

**Funding.** The primary challenge facing the *Mano A Mano* program is obtaining continued funding. The program has survived on a patchwork of funding from state and local agencies, the National Cancer Institute through a grant to the University of Texas Medical

Center, and charitable contributions. Money **dedicated** to the program has often been barely sufficient. In previous years, funding was obtained through the March of Dimes Foundation and **AmeriCorps** program; however, these sources proved to be only temporary. The program lost eight *promotorus* when the **AmeriCorps** funding ceased; only the **VISTA** funding allowed the current four to remain. The program's coordinators have attempted to obtain foundation grants, to no avail. Last year, the project's former coordinator, a nun, appealed to various religious orders for support; her efforts provided funds necessary to operate the program. Observers state that the program often has only enough money to run for a few weeks or a month at a time.

**Documentation.** The *promotoras* are required to document every encounter they make on a single-sided contact and referral sheet. During our site visit, we observed the *promotoras* diligently documenting their home visits; however, observers remarked that documentation is not always uniform. Since many conversations take place in informal settings among neighbors, some *promotoras* neglect to record every interaction. Therefore, it is reasonable to **assume** that the reported figures underestimate the impact the *promotoras* have on the community.

**Information System.** The *Mano A Mano* program lacks a database to record the encounters made by the *promotoras*. Data reported to Brownsville and various funding sources are hand-tallied. Furthermore, the program coordinators do not tally all potential data from the sheets. For example, the program does not routinely tabulate those 23 conditions for which the *promotoras* gave information, or the referrals made by *promotoras* to agencies and services. Again, reported data likely underestimate the number of referrals and presentations made by *promotorus*, as well as the amount of materials they distribute. In addition, Brownsville's information system does not note referrals made by the *promotorus* for the health center's services, nor do providers know when a patient has been visited by a *promotoru* because a copy of the *promotora's* form is not included in the medical record.

## **MANO A MANO PROGRAM IMPACTS**

Data on the *Mano A Mano* program are difficult to obtain; however, limited descriptive data are available. Retrieving information on the number of home visits, number of pregnant women identified and number of presentations given requires a time-consuming process of hand-tallying the *promotoras* contact and referral sheets. Further, the program has not heretofore tabulated data on the information given to clients or the referrals made by the *promotoras*.

Descriptive data are encouraging in that they document the extent the *promotoras* are involved in the community:

### **Patient Access to Services**

In 1996, the volunteer *promotoras* in Brownsville made approximately 200 home visits per month; while the **AmeriCorps** *promotoras* conducted about 800 home visits per month. **In** the **first** three months of 1996 alone, Brownsville *promotoras* made approximately 1,900 home visits; and worked directly with 400 women providing transportation, classes and other support as necessary.

From January 1997 - October 1997 *promotoras* in Brownsville and Matamoros each made approximately 400-500 home visits per month.

### **Patient Knowledge and Behavior**

**In** 1996 *promotoras* presented an average of 6-10 classes **per** month.

From January 1997 - October 1997 *promotoras* in Brownsville conducted 18-20 presentations per month; while Matamoros *promotoras* conducted **20-25** each month.

## LESSONS LEARNED

**Creative financing can keep a successful program alive.** Brownsville sought ways to continue the **Mano A Mano** program after funding from the March of Dimes ended. Use of federal, local and state funds, as well as charitable contributions, has allowed this program to survive for the time being. However, obtaining future funding is a challenge.

**Successful program participants are not necessarily the most outspoken.** The *Mano A Mano* program has learned that community leaders are not always the most outspoken. One *promotoru* was seen as trustworthy and sincere, even though she was also shy and reticent. Since being a *promotoru*, she has gained confidence and is now loquacious. Programs such as this not only benefit the community but also help build skills and confidence in its participants.

**CHW encounter records should be included in the patient record.** There is no formal documentation of the work done by **CHWs** in the patient's **record**. To assist providers in caring for their patients, it would be beneficial to include a copy of the CHW encounter form regarding both medical and non-medical-related referrals in the medical record.

**Outcomes measurement should be a priority.** In a time when fewer resources are available, it is crucial that programs be able to document outcomes impacted by CHW involvement. For example, gathering data on the number and types of referrals made by *promotoras* could shed light on the outcomes of the program. Including a copy of the *promotorus'* contact and referral sheet in the patient's record might also establish whether the program has brought new patients to the health-center.

**An information management system should be a priority.** Programs should invest in a database at a minimum, to more readily produce data describing the program's impact. Easily obtaining outcome data may facilitate obtaining grants in the future since funding is increasingly contingent on proving impact.

BROWNSVILLE ~~COMMUNITY~~ HEALTH CENTER  
KEY INFORMANTS INTERVIEWED

Executive Director  
Finance Director  
Assistant Controller  
Front Desk Coordinator  
Health Information System Supervisor  
Social Services Supervisor  
Health Education Coordinator  
*Mano A Mano* Assistant Coordinator  
*Mano A Mano* Promotoras

BROWNSVILLE **COMMUNITY HEALTH** CENTER  
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APPENDIX D

LOGAN HEIGHTS FAMILY HEALTH CENTER  
CASE STUDY



## LOGAN HEIGHTS ~~FAMILY~~ HEALTH CENTER

Logan Heights Family Health Center has several programs that use Community Health Workers (**CHW**)<sup>12</sup>. For this study, we selected two closely related programs, *Hablando Claro* (Plain Talk) and the STEP program, both of which deal with adolescent sexuality, and which use *people* from the community to provide basic health education to their peers.

This case is part of a study being performed for the Bureau of Primary Health Care (**BPHC**) of the use of Community Health Workers in Bureau-funded programs. The study concentrates on *the* impact that **CHWs** have on patient access to services; proper utilization of services; and patient knowledge and behavior. It also seeks to share the lessons that can be **learned** from existing CHW programs for use by providers and **communities** who are considering initiation of similar programs.

### BACKGROUND

Logan Heights Family Health Center (**Logan Heights**) has **served its** barrio in San Diego for 25 years; it also operates four community satellites and 15 school-based programs. In the past decade it has undergone major growth and diversification of funding sources. In addition to being a federally funded community health center, the organization is San Diego's lead agency for the distribution of funds for the Health Care for the Homeless Program. It also receives Ryan White money from multiple sources, including the state (administered through the city) and Title III(b) from BPHC. The center is accredited by the Joint Commission on the Accreditation of Health Care Organizations for both its medical sites and its laboratories. The center is developing an additional site in the eastern county, located 15 miles east of Logan Heights, to be opened in 1998. It is also soliciting **funds** for a Mobile Medical Unit, which should be initiated soon.

Logan Heights is a large organization: in 1996 it served 5 1,198 users for a total of 174,109 visits provided by a staff of 247.25 **FTEs**. It has comprehensive services, including general primary

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<sup>12</sup>*Including for its HIV/AIDS, homeless, and perinatal programs. A new child-abuse prevention program based in schools will also use CHAs.*

medical care, diagnostic laboratory, diagnostic imaging, screenings, emergency medical services, urgent medical care, family planning, HIV counseling and testing, immunizations, a comprehensive perinatal care program, dental care, mental health and substance abuse services, nutrition, a pharmacy, case-management, eligibility assistance, health education, translation, outreach, and transportation. The center operates as a “hen-and-chicks” model with the more sophisticated and expensive services offered at the main site and basic care at the satellites. Although the main site just occupied a new **building** in 1993, it has already outgrown its space.

The center has assiduously cultivated not only potential funders but also prominent members of the business and local government communities. This has included a quarterly newsletter *Adelante* aimed at that audience, events -- such as i” Spirit of the Barrio lunches -- that recognize financial and other contributions, and frequent informal communications. The center’s leaders believe that these efforts pay off in both financial and political support and stability.

Logan Heights users tend to be racial/ethnic minorities, mainly **Latino** (See Exhibit 1). The demographics vary somewhat by area. For example, the Beach Area site has more **non-Latino** whites while the main site has a heavy concentration of **Latinos**.

**EXHIBIT 1**  
**LOGAN HEIGHTS USERS BY RACE/ETHNICITY**

Race/ethnicity	Percent
Latin0 (all races)	<b>64.4%</b>
White ( <b>not</b> Latino)	<b>23.7%</b>
Black (not Latino)	6.8%
<b>Asian/Pacific</b> Islander	1.5%
American Indian/Alaska Native	0.1%
Unreported/Unknown	3.5%
Total Users	100.0%
Note: 70% of users need translation services	

As Exhibits 2 and 3 illustrate, Logan Heights patients are poor. Most have no private **insurance** but are instead dependent upon Medicaid and other public insurance or **direct** provider subsidies, like the community health center funds.

**EXHIBIT 2**  
**LOGAN HEIGHTS INCOME AS % OF POVERTY LEVEL**

Income as % of Poverty Level	# Users	Percent
100% and below	44,143	86.2%
<b>101-150%</b>	5,098	<b>10.0%</b>
<b>151-200%</b>	1,053	2.1%
Over 200%	831	1.6%
Unknown	7            3	0 . 1 % .
Total	51,198	<b>100.0%</b>

**EXHIBIT 3**  
**LOGAN HEIGHTS PAYMENT SOURCE FOR USERS**

Third-party payment source	# users	Percent
None/uninsured	10,932	<b>21.3%</b>
Medicaid	14,108	27.6%
Medicare	833	1.6%
Other public insurance (homeless grant, county and state)	23,996	46.9%
Private insurance	1,329	2.6%
Total	51,198	100.0%

San Diego's economy is strong since it, and **California** in general, have pulled out of the slump largely caused by cuts in defense spending. San Diego, even now a major Navy base, has recovered by converting old Navy facilities to civilian purposes. It also is the hometown of the state's governor. However, there are few jobs for unskilled workers, and residents find themselves competing with new documented and undocumented immigrants for jobs. This is especially true in Barrio Logan, where a third of the residents have incomes below the federal poverty line. The economic problems of hospitals, which are major employers, have also resulted in the **loss** of jobs often filled by the poor. On a more positive note, San Diego has better public transportation than other California cities, somewhat easing the problem of having potential employees reach employers in other parts of the city.

California is phasing in its Section 1115 mandatory Medicaid (**MediCal**) waiver beginning with the urban areas. Although in other urban counties the state signed only two contracts with **health** care plans (a commercial plan and a "local-initiative" plan made up of safety-net providers), in San Diego County they contracted with four plans. **Logan Heights** has chosen to contract with **Sharp HealthCare** and Mercy Medical Foundation's Health First Network. Since the phase-in is occurring far more slowly than initially planned, Medicaid managed care has yet to have major impact on Logan Heights, which is **warily** watching the **situation**.<sup>13</sup>

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<sup>13</sup>As it is for welfare reform, especially as it concerns immigrants.

## LOGAN HEIGHTS' COMMUNITY **HEALTH WORKER PROGRAMS**

Logan Heights is a long-time supporter of the use of community health workers under various names and from different funding streams. For example, in the early 1990s it had a program of teen peer counselors (Poder) sponsored by the Federal Office of Minority Health. Among its current CHW programs are its perinatal **care** management and HIV/AIDS **outreach and** counseling project. However, since these programs are similar to those found in this study's other cases, we decided to focus on two closely related programs that use CHW peer counselors to deal with issues of adolescent sexuality. These two programs are Plain **Talk/Hablado Claro** and STEP.

The Plain **Talk/Hablado Claro** program is in its last year of funding under a grant from the Annie E. Casey Foundation, one of six that the foundation supports **nationwide**.<sup>14</sup> It has focused on the protection of sexually active youth through parental organization and education. The project includes engagement with the community's adult residents as they **learn** to communicate with their children and teens about sexuality, anatomy and physiology, HIV/AIDS, and STDS. Its goals are to:

- Improve communication between adults and adolescents about reproductive health issues.
- Inform sexually active adolescents about birth control.
- Increase the use of birth control methods including education and continuous correct use.
- Reduce the rate of unwanted pregnancies and sexually transmitted diseases including HIV/AIDS, gonorrhea, syphilis, etc.

Targeted at Barrio Logan's population of 13,488 (3,380 households) who are 80 percent Latino, **Hablado Claro** is a reaction to poor health statistics in the barrio. Thirty-eight percent of teen births in San Diego were to **Latinos** during, 1980-1987; teens from Barrio Logan were half these cases. Births to teenage mothers jumped from 1,634 to 2,505 in San Diego County from 1986 to 1990. In 1989 reported cases of syphilis in the barrio were five times (**109.1/100,000**) the San

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<sup>14</sup>*The other cities are Atlanta, Hartford, New Orleans, Indianapolis. and Seattle.*

Diego County rate. *Hablado Claro* was conceived as a means of using the Latino residents' strong emphasis on family and community as a solution. As its plan states:

Our intent is to initiate the development of a healthy and adaptive socio-cultural environment that ultimately protects not only adolescents that are sexually active, but all youth in the community. This environment would consist of an **active and involved adult** population that values its roles as leaders, and feels adequately prepared to guide their young through the often turbulent adolescent years.

The *Hablado Claro* program began with an extensive house-to-house "community mapping" of the barrio conducted by area residents in 1993. These residents formed the beginnings of the Barrio Logan Community Core Group, a key element of *Hablado Claro*. The survey queried the residents' knowledge, attitudes, behaviors, and beliefs pertaining to adolescent sexuality, as well as the services available to teens. The Community Core Group concluded that there was great need for "askable" **adults** who could communicate effectively with adolescents around sensitive matters.

The next step was the recruitment of additional Community Core Group members who would meet regularly both for educational and skill-building purposes and to serve as advocates for the program. They made and implemented plans to recruit additional members and block captains, going door-to-door and to **small** businesses such as candy stores where people gather with *Hablado Claro* materials. **These efforts are** ongoing. At first the Core Group members received a small stipend (\$25) for coming to the meetings, but a lean budget forced the stipends discontinuation. Although attendance dropped off after payments were no longer made, it soon recovered. The program provides childcare during the meetings, thus removing a barrier to participation. By 1996 the Core Group had 68 members.

At the beginning paid Logan Heights **staff** members provided much of the initiative and guidance, but they believed it critical that the Community Core Group should take control of the program so that *Hablado Claro* is a community-driven effort. Accordingly, much of the **first two-** years' efforts were directed at increasing the skill levels, leadership, and confidence of the Core Group members. Group members rotate in facilitating the meetings.

Some of the Community Core Group members were so enthusiastic about *Hablando Claro* that they enrolled in a **32-hour** training program consisting of modules on reproductive health, normative sexuality development, HIV/AIDS, sexually transmitted diseases, birth control, public speaking, effective communication skills, confidentiality, and self-esteem development. These **became** “*promotoras*” or health promoters”. The five current *promotoras* not only share information on an individual basis with their friends, relatives, and neighbors, but also conduct “*vecino-a-vecino*” (neighbor-to-neighbor) group sessions that are modified versions of their own training curriculum.

*The promotoras* are emphatically **not** Logan Heights employees so that they cannot be perceived by the community as institutional representatives rather than concerned community activists. Instead, both they and the hosts of the group sessions receive gift certificates from local merchants. This has the added benefit of keeping buying power within the community. **Because** they are not employees, recruitment to the position is informal; the best sources have been members of the Core Community Group who make a positive impression and word-of-mouth recruitment in the **barrio**. Their efforts are supervised by an *Hablando Claro* program manager who is professionally trained. Another Logan Heights outreach worker (employee) also is a resource for them.

Currently, five **Latina** women serve as *promotoras*. *All speak* Spanish as their **first** (and in some cases, only) language. Many related that they were shy and **unsure** of themselves before *Hablando Claro came*, but now they believe wholeheartedly in the program and in their own efforts. They have even composed an *Hablando Claro* song.

**STEP (Smart Teens Educating Peers)** is funded by the state health agency’s Male Involvement Initiative. More recently, a parallel **program funded** by California Wellness and the

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<sup>15</sup>*The terms are somewhat confusing in the Hablando Claro program.- in the beginning only those Community Core Group members who had undergone the additional training and who could conduct their own neighborhood health education sessions were called “promotoras.” Later the program decided to call all Core group members. “promotores.” For purposes of this discussion, the term “promotoras” will be used only for those individuals who have received the additional training.*

local Kaiser Permanente Foundation has expanded the reach of the program, including employment of two female peer counselors, to the North Park area. When funds became available, Logan Heights jumped at the opportunity to add a component largely missing from *Hablando Claro*. **Although *Hablando Claro*** had been successful in including fathers among participants in its education sessions, no males were promotores and adolescent males were largely absent. The program is designed to help adolescent males recognize their responsibilities concerning their sexuality, as well as to make responsible choices about reproductive health issues. Most recently, the teen peer counselors have begun distribution of tri-fold cards that both promote the program and also give locations of teen and family planning clinics. By March 1997 a total of 659 referral cards had been distributed.

The STEP program initially had the funds to hire three part-time (10 hours/week) peer educators, a “near” peer (a young adult male), and a senior health’ educator to organize and coordinate education and prevention strategies for males ages 12 to 18. All the youth hired are from the **community**, bilingual, and have undergone an intensive eight-week training course that is based on the *Hablando Claro course*. **They range** in age from 14 to 19. They were recruited through announcements in newspaper want ads, postings at social service and other agencies, and internal listings.

The first group was selected as role models; i.e., they are good students, active in the community, etc. For the most recently recruited group, the program reached out to teens who have had brushes with the law or other problems but whom the program’s managers believed could recover their lives and thus be examples of self-determination and renewal. They are supervised by a professionally trained program manager, as well as a former teen peer counselor who had demonstrated his leadership skills while serving **in that** position. The program manager has formed a “fairness committee” of peer counselors selected by the group to which disciplinary and other problems are referred.

The teen peer educators organize and present all program activities to be appropriate for adolescents. In addition to one-on-one encounters on street corners, at school, or wherever teens

gather, they have attracted 25-30 young Latino males to biweekly meetings at the local Boys' Club and to social events and sports events. For example, they sponsored a Valentine's Day dance that included a booth with appropriate health education materials. At a recent "*hombres juvenes con palabra*" (young men with word) event, 561 Latino teens attended, along with 24' school counselors, aides, and teachers. The young men with word has four themes: 1) They keep their word; 2) They don't do anything to hurt others; 3) They take responsibility for their actions; and 4) *They are* a positive example to others. The teen counselors stress that they refrain from telling their peers what to do but, rather, help them to make better decisions and healthier choices.

The success of this event and the urging of the Community Core Group encouraged Logan Heights to create a *Circulo de Hombres* (Men's Circle) or network of male leaders in the community, funded by a state community challenge grant. The model is the Community Core Group, and the *Circulo will* use many of the same techniques and curriculum, modified as necessary for the Latino male perspective.

The teen peer counselors also interact heavily with the Community Core Group both to offer the adolescent perspective and to aid in the group's health education programs. By March 1997 they had made six presentations, reaching 340 adults.

Because of the nature of the *Hablando/Claro* and STEP programs that use community-based CHWs who are not actual employees, it is not possible to calculate a per-FTE cost. However, the total management and supervisory costs of the program are \$157,782. This number includes personnel costs; rent, supplies, postage, local travel, utilities and overhead costs. It excludes a community-awareness campaign, large-scale printing, and similar materials costs.

## PEER COUNSELOR PROGRAM IMPACTS

Descriptive data on the Hablando **Claro/STEP** programs are readily available, as **the** attached bibliography attests. The programs regularly report the number of training sessions, **the** number of participants, and so forth.

However, gathering data on the outcomes of the programs is **difficult, except** in the area of patient knowledge, where the program is using **pre/post** surveying of both group participants **and** also the larger community.

### Patient Access to Services/Appropriate Use of Services

Since the programs are not specifically intended to increase use of medical **services**, no tracking system exists to connect the *promotorus* and teen peer counselors' health education contacts with subsequent use of family planning or primary care **clinics**.<sup>16</sup> In fact, the programs are especially designed as community-wide projects, so that barrio residents could choose a number of different community providers, making tracking even more difficult.

The teen peer counselors are now distributing promotion cards that contain information about services available in the **community**. However, neither they nor the *promotorus* make formal referrals. Teens are requested to take the cards with them to visit a participating provider. and if they fail to do so, are asked to identify the peer counselor from photos. However, this tracking system is manual and cumbersome.

**The programs are, however, attempting to improve the customer-friendliness of local care** providers available to teens, thus improving access by increasing the teens' willingness to use those providers, and enhancing the quality of their experiences there. The STEP program is having an

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<sup>16</sup>*Logan Heights is in the process of acquiring a new information system which presents the opportunity for more-sophisticated patient tracking.*

effect on service delivery. Not only Logan Heights, but also Comprehensive Health Care, the University of California at San Diego, and Planned Parenthood are instituting a staff training program about delivering health care to teens. The need for such training became clear after a study in which adolescents posed as potential patients seeking family planning services from multiple providers, then graded them on such issues as phone access, waiting time to appointment, information given about STDs, and comfort of facilities for teens. The goal is to work through uniformity of standards, particularly with respect to interpersonal sensitivity, accessibility, and linkage of direct service to preventive health information. The teen peer counselors are also now meeting regularly with the *Hablado Claro promotoras* to offer the adolescent perspective to the program.

*Hablado Claro promotoras* and the STEP teens have successfully argued for adding a day to Logan Heights' teen clinic and Saturday hours to the main clinic.

### **Patient Knowledge and Behavior**

Community knowledge and behavior are the main areas of interest for both programs. The *Hablado Claro* and STEP programs have laid out the following objectives for increased community understanding:

- Changes in attitudes with respect to adolescent sexuality.
- Changes in attitudes toward contraception by adolescents.
- Improved communication between adults and adolescents and between agencies.
- Changes in the availability and accessibility of contraception.

One method of measuring the impact of the program is that, before and after community health education or *vecino-a-vecino* education, the participants are queried on their knowledge and attitudes of sexuality. Questions include, among others, demographics, whether they have adolescent children, and knowledge of sexuality (e.g., whether a girl can become pregnant as a

result of her first intercourse). The same survey is then administered at the end of training. To date 543 surveys have been entered into Logan Heights data base; analyses are not yet available. Some 75 percent of respondents were female, with 25 percent male. About 85 percent identified themselves as Mexican; for 93 percent the language of choice is Spanish.

Comparable **pre/post** surveys of teens are used by the STEP program, **which** includes true/false responses to statements such as: "It's better to smoke marijuana than crack because it is less **harmful**" and "A person infected with herpes can only pass the disease to someone during sexual contact if herpes sores are present." However, the program lacks sufficient resources to take the next step of asking whether change in behavior accompanied the changes in knowledge.

Logan Heights has also planned to conduct a follow-up study to the initial community mapping done in 1993 that surveyed 610 adults and 409 adolescents on their knowledge, attitudes, behaviors and **beliefs** pertaining to adolescent sexuality. The survey, based on the Centers for Disease Control and Prevention's **KABB** survey was planned to be administered in the fall of 1997; however a lack of resources has prevented the program from conducting the study for the time being. When administered it will query every tenth household and contain questions on demographics, teen sexuality, substance use, stress, depression, health problems, domestic violence, and community problems.

Until the quantitative data become available in late 1997, changes in patient knowledge and behavior can only be measured in qualitative terms, especially in the voice of the community participants. Our study team heard and read comments (note: these are English translation of the original Spanish) such as, "Before I did not know what was happening to our bodies or **when** to talk to our children. Now I know, and I am giving the information to them a little at a time." and "Now I don't feel embarrassed to talk about sexuality with my children, and they ask me more questions."

## LESSONS LEARNED

Leaders can be very creative in assembling a cohesive program from multiple funding streams.

- Involving (and not just consulting) the community must occur at every step in the process.
- Peer counseling programs rely on funding that is apart from that for medical services; such funding streams must be maintained.
- Outcome measures should be a priority. In a time of shrinking resources, it is crucial that programs be able to document outcomes impacted by **CHW** involvement. Logan Heights clearly understands this importance, as shown by their extensive **pre/post** testing but, like other programs, finds it **difficult** to commit the needed resources to evaluation when program needs are so pressing. The strain on resources is likely to increase.

LOGAN HEIGHTS FAMILY HEALTH CENTER  
KEY INFORMANTS INTERVIEWS

Patients

**Promotoras of Hablando Claro**

Teen peer counselors

Executive Director

Director of off-site services

Medical Director

Chief Financial Officer

Manager of Support Services (including information systems)

Case manager, Homeless Families Project

**Perinatal** case managers

clinic directors

HIV Counselors

**Hablando Claro** project director

STEP program director

Clinical case manager

Consumer member, Board of Directors

Community outreach worker

LOGAN HEIGHTS **FAMILY HEALTH** CENTER  
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**APPENDIX E**

NORTHWEST MICHIGAN HEALTH SERVICE  
CASE STUDY



## NORTHWEST MICHIGAN HEALTH SERVICES

The Northwest Michigan Health Services (Northwest Michigan) migrant health center has a Community Health Worker program, the Camp Health Aide Program (CHAP). This program utilizes women from the migrant community who work to provide informal **community-**based, health-related services and who establish vital links between community-based health providers and migrants in the community.

The Center for Health Policy Research was asked by the Bureau of Primary Health Care (BPHC) to study the use of Community Health Workers in Bureau-funded programs. In particular, this evaluation is interested in the impact Community Health Workers can have on patient access to services; proper use of services; and patient knowledge and behavior.

### BACKGROUND

The health center is located in the region known as northwest lower Michigan which runs along the coast of Lake Michigan. It was founded in 1968 and has grown to occupy three sites serving eight counties<sup>17</sup>. Each year 12,000 to 15,000 migrants come to northwest lower Michigan to work on farms harvesting, among other crops, cherries, apples, zucchini, yellow squash and pickles, a small variety of cucumbers. As Exhibit 1 shows, Northwest Michigan serves three **of** the most populous migrant counties. **Most** migrants follow the harvests **from** Texas and Florida and return home after the season in Michigan is complete. Northwest Michigan serves between 4,000 and 4,500 migrants annually. The great majority of the migrants are of Hispanic origin.

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<sup>17</sup> Northwest Michigan serves the following eight counties: Antrim, Benzie, Grand Traverse, Leelanau, Manistee, Mason, Muskegon, and Oceana.

**EXHIBIT I**

**TOP 10 MICHIGAN COUNTIES FOR MIGRANT POPULATION**

<b>COUNTY</b>	<b>NUMBER OF MIGRANTS</b>
Berrien	9,317
Van Buren	8,378
Kent	5,367
Oceana*	3,804
Bay	2,038
Manistee*	1,839
Ottawa	1,758
Allegan	1,674
Leelanau*	1,386
Ionia	1,062
<b>TOTAL</b>	<b>36,623</b>

Source: Northwest Michigan 1997 Application/Proposal

*\*Counties served by Northwest Michigan*

Northwest Michigan receives a Migrant Health Center 329 grant, and Comprehensive **Perinatal** Care Program funds from the Bureau of Primary Health Care. In addition, Northwest Michigan receives funds from the Michigan Department of Public Health for its Camp Health Aide program, a component of its outreach program. It also collects third party payments and sliding fees from patients.

Northwest Michigan provides a **full** range of services including general primary medical care, diagnostic tests and screenings, urgent care, family planning, obstetric and gynecological services, dental care, pharmacy, and case-management. During the off-season, when small numbers of migrants are in the area, it is not economical to operate the clinics full-time. Therefore, Northwest Michigan reduces its operating hours in the winter and refers some patients to local private practice physicians and dentists on a fee-for-service basis. Northwest Michigan assists the local private providers in caring for the migrants by paying for the services and supplies, transportation, translation, and prescription medications, and rendering follow-up care through outreach.

In 1996 Northwest Michigan reported nearly 13,000 total -medical care encounters and about 3,800 users; and just over 1,000 dental service encounters and 500 users. Northwest

Michigan is staffed by 8.37 full time equivalency (**FTE**) medical providers and 1.98 **FTE** dental providers.

All of Northwest Michigan's patients are agricultural farmworkers. In 1996, **98** percent were considered migrants, and 3 percent were seasonal workers. All of Northwest Michigan's patients are Hispanic and many do not speak English fluently. Seventy-five percent require translation services. All have incomes that fall below the federal poverty-level. **Forty** percent of Northwest Michigan's patients receive care under the Medicaid **program**; the remaining 60 percent are uninsured.

While teenagers account for nearly one-quarter of the pregnant population, most pregnant prenatal care users are over the age of 20.

EXHIBIT 2  
AGE OF PRENATAL CARE USERS

<b>AGE</b>	NUMBER OF PREGNANT WOMEN	PERCENT
Less than 15 years	4	2
Ages 15-19	44	22
<b>Ages 20-24</b>	<b>68</b>	<b>34</b>
Ages <b>25-44</b>	82	41
Age 45 and Over	0	0
TOTAL,	198	100%

Source: Northwest Michigan 1996 Uniform Data System

Most pregnant patients seek prenatal care during their first trimester. In **1996**, **51** percent of pregnant patients sought care in their first trimester from Northwest Michigan, while an additional seven percent made their first visit to another provider. Only eight percent of those patients receiving prenatal care from Northwest Michigan waited until the third trimester to begin treatment.

EXHIBIT 3  
1996 NORTHWEST MICHIGAN PATIENT'S  
TRIMESTER OF ENTRY TO PRENATAL CARE

TRIMESTER	WOMEN MAKING FIRST VISIT AT NORTHWEST MICHIGAN	WOMEN MAKING FIRST VISIT AT ANOTHER PROVIDER
First Trimester	101	13
Second Trimester	39	30
Third Trimester	9	6

Source: Northwest Michigan 1996 Uniform Data System

Diabetes and hypertension rank among the most significant health problems for migrants in Northwest Michigan's service area. In 1996 there were 306 encounters for diabetes mellitus and 225 diabetic patients with either a primary or secondary diagnosis. There were 175 encounters for hypertension and 72 patients with either a primary or secondary diagnosis.

The state is rapidly moving towards enrolling Medicaid patients into managed care plans. Currently, Michigan has implemented Medicaid managed care under the authority of two waivers to section 1915(b) of the Social Security Act. Medicaid beneficiaries are being mandatorially enrolled into Qualified Health Plans (QHPs) statewide in a two phase process. Under Phase **One**, recipients in five southeast Michigan counties have already been enrolled. The remaining 78 counties will be enrolled under Phase Two. The state issued an request for proposals (RFP) during the summer of 1997 seeking competitive bids from **HMOs**, Clinic Plans, or other organizations structured to accept **capitated** risk (with qualification that such plans will move towards HMO licensure).

EXHIBIT 4  
1996 **MICHIGAN** MEDICAID ENROLLMENT

MEDICAID ENROLLMENT	MEDICAID MANAGED CARE ENROLLMENT	PERCENTIN MEDICAID MANAGED CARE PLANS
<b>1,148,115</b>	834,348	73

Source: USDHHS, HCFA 1996

Migrants have been categorically exempt from mandatory enrollment into Medicaid managed care since 1994. Services are delivered to migrants on a fee-for-service basis. The

exclusion is based on an administrative decision ~~by the~~ state's Medical Services Administration rather than on a policy or legislative decision. Therefore, the exclusion can be easily changed since the MSA could reverse its decision.

The state's second 1915(b) waiver, the Physician Sponsor Plan, is a voluntary program in which services are delivered on a fee-for-service basis. It is available to both the Aid to Dependent Families with Children (AFDC) and Supplemental Security Income (**SSI**) populations. In 1996 Northwest Michigan enrolled its largest delivery site, the Shelby Clinic, in the PSP; enrollment of the other two sites is **under** consideration.

Northwest Michigan is collaborating with other community health centers (**CHCs**) and migrant health centers (**MHCs**) in Michigan to develop Community Choice Michigan (CCM), a **capitated** Medicaid managed care plan. Incorporated in 1995, CCM is structured as a state-wide integrated services network (ISN). Northwest Michigan will join CCM when it is operational.

Michigan also runs a program called MichCare which is a state funded health insurance program for low income pregnant women and children. MichCare provides funding for two programs: 1) Non-Medicaid MichCare provides prenatal care to approximately 2,500 pregnant women per year who do not financially qualify for Medicaid; and 2) the Omnibus Budget **Reconciliation** Act (OBRA) of 1987 Medicaid expansion for low-income pregnant women and children up to 185 percent of FPL, and children age one to 16 at 150 percent of FPL. Approximately 152,000 enrollees were covered in Fiscal Year 1997 under this program.

#### NORTHWEST MICHIGAN'S CAMP HEALTH AIDE **PROGRAM**

Northwest Michigan's Camp Health Aide Program (CHAP) is part of the larger CHAP program that operates in **five** locations throughout Michigan between April and December each year<sup>18</sup>. This larger program, which was initially managed by the Midwest Migrant Health

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<sup>18</sup> *The five locations serve migrants in the following counties: Allegan, Barrien, Bay, Ionia, Kent, Newaygo, Oceana, Ottawa, and Van Buren.*

Information Office (MMHIO), is funded by the state Department of Health. Northwest Michigan runs the program in **Oceana** County through its Shelby Clinic site.

The program was created from a needs assessment conducted by the MMHIO in 1983-84. The assessment identified the following barriers to health care for migrant farmworkers: 1) lack of bilingual health care providers, and 2) lack of outreach services in migrant labor camps for follow-up and post clinic visits (Salinas, **Michele** 1996, p. 4). After a successful pilot program in 1985, the program expanded to two sites in Michigan and into Ohio. By 1988 Michigan's Department of Public Health provided funding for five programs at **C/MHCs** throughout the state. Each participating **C/MHC** assumes administrative responsibilities that include hiring, training, and reporting to the state CHAP coordinator. The program has operated for ten years in the Shelby Migrant Clinic service area, and has been administered by Northwest Michigan for nine years.

The state-wide program has achieved local and national acclaim. In recognition for its achievement in improving healthy outcomes for mothers and babies, the Michigan Department of Community Health, Community Public Health Agency awarded the CHAP an Exemplary **Program** Service Award at its 1996 Infant Mortality Summit. The CHAP also received one of five 1996 National Models That Work awards from the Bureau of Primary Health Care. The award was given for CHAP's ability to expand community health access to rural communities with minimal resources, and the program's cultural sensitivity and flexibility (Coalter, Mary, 1996 pg. 10-11).

The purpose of the CHAP is to provide community outreach health care among migrant farmworkers to promote the early enrollment of women into **prenatal** care, improve the health maintenance of migrant families, and increase awareness of preventive behaviors **and** general health for the migrant population. The program's primary objective is to increase awareness of the need for early and continuous prenatal care and the benefits of such care to healthy outcomes for Michigan farmworkers (Coalter, Mary 1996, pg. i).

The program operates by training migrant **farmworkers** to be health resource persons in the migrant camps where they live and work thereby reducing some of the barriers that typically exist. The program trains and mentors migrant women and men as Camp Health Aides (**CHAs**). It includes:

- training aides in basic health care;
- providing ongoing training, resource information, and supervision;
- developing improved coordination and information flow between migrants and migrant clinics; and
- empowering the aides through their communities **to take** more responsibility for improving and maintaining their own health. Focusing on maternal and child health is a priority issue (Coalter, Mary 1996, pi).

Northwest Michigan sponsors 11 **CHAs**, and employs a full-time Local Program Coordinator and an Assistant Local Program Coordinator between April and December. The **CHAs** work approximately 20 hours per week for the CHAP for 11-14 weeks, in addition to their full-time work as farmworkers. During the off-season, the Coordinator works part-time as a receptionist for Northwest Michigan and does not work on the CHAP program; the Assistant Coordinator, a migrant herself, returns to Texas with her family where she coordinates a downstream CHA program funded by MMHIO. On average, we estimate that it costs approximately \$9,104 per CHA (if annualized) after accounting for such costs as salary and benefits (for the coordinators), stipend (for the **CHAs**), supervision, administration and overhead. The program is funded by a contract with the Department of Health.

The CHAP coordinator is given a fixed budget **with** which she **can** hire between 8 and 14 **CHAs**. If she hires the maximum number of **CHAs**, she will be able to cover more camps; however, the length of time they can work will be cut. If she hires 14 **CHAs**, there will be

enough money to pay them for 11 weeks worth of work; if the number of **CHAs** is cut sufficiently, the season can be stretched to as many as 14 weeks.

While the migrants would benefit from CHAP services throughout the 12-16 week season (which varies by crop), the program's constrained resources have made it necessary to maintain **CHAs** for only 11-14 weeks. The coordinators have found that **CHAs** are more effective if they are primarily migrant farmworkers themselves, working alongside other migrants. Migrants are more likely to trust the **CHAs** if they are seen as peers, who understand the culture and life of migrant workers. The **CHAs** interviewed agreed that this is the best arrangement, even though the arrangement requires them to work long days in the fields, and additional hours addressing health needs of fellow migrants.

**CHAs** are responsible for at least one camp each. This season? the camps range from 30 to 200 inhabitants. Optimally, some of the large camps require more than one **CHA**; **however**, due to budget constraints, they may have only one. The coordinators have decided it is better to place **CHAs** in as many camps as possible, rather than double or triple them in several camps. In 1997 the **CHAs** served 900 migrants in camps in Northwest Michigan's service area. But the **CHAs** do not cover all the migrants that reside in **Oceana** County. Due to funding limits, there are at least 60 camps that cannot have a **CHA**.

**CHAs** interact with fellow migrant farmworkers for approximately 20 hours each week in the fields, the processing plants, and at home in the camps. The **CHAs** follow up each pregnant woman and child under age one at least once a week. Additionally, they hold health education sessions, help other migrants determine if they should see a physician for a problem, and obtain appointments for those who need them. **CHAs** also perform basic first aid for their fellow migrants which increases their credibility as lay health workers and also helps in the appropriate use of health care facilities. For example, 'when a **CHA** bandages a migrant's cut at home or in the field, she can prevent an unnecessary emergency room visit.. Often, **CHAs** accrue encounters while at work in the fields, answering questions as they work. The **CHAs** are seen by other migrants as reliable sources of information and are trusted with personal information.

Although **CHAs** focus on pregnant women and Very young children, their job descriptions do not end there. **CHAs** become a resource for all migrants who reside in the camp. They address any and all questions regarding health (using program clinicians for needed information), and assist anyone needing information or an appointment. The **CHAs** play the following range of roles for their fellow migrants:

- **Observer:** **CHAs** know when someone in their camp needs and wants help.
- **Resource Guide:** **CHAs** guide migrants to health and social services and other kinds of information. They also direct people to specific resources such as clinics, Medicaid and Medicare, food stamps and the Women, Infants and Children (**WIC**) nutrition supplement program.
- **Advisor:** **CHAs** help migrants decide when they should seek help from a **clinician** or social service agency.
- **Health Educator:** **CHAs** know which health and social issues are pertinent to the migrants and instruct them on how to address these issues.
- **Lay Health Worker:** **CHAs** administer basic first aid to fellow migrants with minor medical problems
- **Translator:** **CHAs** translate for those migrants who do not speak English and assist them during medical appointments, dealing with the social service agencies and sometimes with their employers.

Exhibit 5 illustrates the wide scope of issues **CHAs** address with migrants, and the number of encounters per issue.

**EXHIBIT'S**  
**TYPES OF ISSUES ADDRESSED BY CHAS**  
**NHMS CHAP 1996**

<b>PROBLEM</b>	<b>ENCOUNTERS</b>
Injury	396
Acute Illness	396
Camps and Work Sanitation	30
Prenatal	206
Infant/Child Health	76
Adult Health	262
Dental	65
Chronic Conditions	89
Social Service	190
<b>TOTAL</b>	<b>1710</b>

Source: Coalter, Mary; Attachment A

The **CHAs** are all females who live in Northwest Michigan's service area during the growing and harvesting season. All **CHAs** are Hispanic, eight are bilingual, and **three prefer** to speak only Spanish. Their ages range from 18 to 45. Nine are married, two are single; eight have children.

Many of the CHAR staff have been in their positions for several years. The administrative staff have been in their positions for seven years. The program's Assistant Coordinator was a CHA prior to taking her current position. Seven of the current **CHAs** are veterans to the position. Some have spent several seasons as **CHAs**. Returning to work as a CHA each year is not guaranteed, and each woman 'is so informed during each season. The coordinators have found that employing some veterans is useful since they can act as mentors for the new **CHAs**. **CHAs** are chosen each year on the basis of their stature in the community, their familiarity with the camps and its inhabitants, and the level of respect and trust they have achieved among their fellow migrants.

Recruitment for **CHAs** is done largely through word of mouth. Coordinators begin searching for **CHAs** in March **and often** go door-to-door asking migrants who they look up to in the community. **In** addition, because the coordinator is Northwest Michigan's receptionist

through March, she often knows who is migrating to the area since many migrants come to the health center for check-ups before the season starts. She uses that opportunity to recruit women who have come in for an appointment. During this recruiting process a handful of women are identified who take care of those in need and who are respected. The coordinators do not look only for women, and have tried to hire male CHAs. However, culturally, the migrants are more comfortable with addressing health issues with women.

CHAs participate in a thorough training that includes 20 hours of classes spread over two weeks. During this training they are introduced to the program's goals and objectives and instructed on how to present the materials to fellow migrants. They learn about basic health and prevention information and are trained in first aid and how to take patients' vital signs. The training is conducted by the local coordinators and Northwest Michigan's nurse teaches the CHAs how to take vitals. The CHAs also meet weekly as a group with the local coordinators for ongoing training and discussions of their successes and challenges. The state MMHIO coordinator hosts at least one meeting each-year at which the CHAs receive additional training.

The CHAs are instructed from books and manuals such as *Where There Is No Doctor* and the Camp *Health Aide Manual*, which are used as resource guides throughout the season. The first section of the *Camp Health Aide Manual* introduces CHAs to the program. The second section contains information geared to prevent health problems by addressing such topics as personal hygiene, camp sanitation and safety, basic first aid, nutrition, and keeping children healthy. The second half of the manual provides information on adult and child illnesses such as diabetes, hypertension, tuberculosis, sexually transmitted diseases (STDs), AIDS, sore throats, measles, mumps and chicken pox.

Successfully interacting with patients requires that CHAs develop good rapport and trust with those they visit. Confidentiality is an utmost concern, especially in migrant camps filled with people who are often related. CHAs are instructed never to discuss the families or their situations outside the health center.

**CHAs** reported that they have had **positive experiences** with the program. They have gained confidence in their abilities to help others and to communicate on a one-to-one or group basis. Bolstered by the experience as a CHA, some have pursued careers in either health or social services. One former CHA became a Licensed Vocational Nurse (LVN) and worked for the Texas Health Department before moving to MMHIO to coordinate a *Colonia* Health Worker Program. Another former CHA has recently been nominated to be on the National Farmworker Advisory Board for the Secretary of the US Department of Health and Human Services (**Salinas, Michele** 1996, pg. 15).

Informal communication has evolved among the staff members at the Shelby Clinic, the CHAP staff (two people, one of whom is herself a migrant) and the Camp Health Aides (**CHAs**) themselves. Clinicians routinely meet with the CHAP coordinators who then contact the **CHAs**. The **CHAs** are asked to locate patients and follow-up on routine issues, deliver prescription medicines and remind them about appointments. Feedback is most often verbally relayed from the **CHAs** to the coordinators and to the clinicians. Clinicians then make notations to the patient's file. The interactions between the **CHAs** and patients are recorded on the CHAP's encounter forms, but copies of these forms are not included in the patient's medical record. This informal method of communication works because the clinical and CHAP staffs are small.

## **Challenges**

Requiring **CHAs** to record all their encounters has been challenging for the program coordinators. Since many encounters occur between **CHAs** and migrants while they are working in the fields, some **CHAs** forget to document some encounters. Additionally, some **CHAs** have not considered some of their interactions with friends and neighbors as encounters and have neglected to document them. Perhaps out of insecurity about their writing skills, some **CHAs** have been reluctant to record their encounters. In response, the coordinators spend much time with some **CHAs** helping them document conversations. **CHAs** are permitted to record their encounters in either English or Spanish.

Until recently, obtaining data on the **CHAP** has been time consuming. This summer the CHAP procured a computer and a computer program with which to record encounters. The program staff is learning how to use this new system which promises to reduce the time it takes to calculate encounter data. This new system, however, does not interface with the health centers information systems. Information is recorded by the **CHAs** by patient name and date of birth; while clinical information is recorded by a unique patient identification number. It will be difficult for the CHAP program to obtain data that will indicate the effects the program has on patients' health. For example, CHAP staff have anecdotal evidence that the kept appointment rate is rising for those migrants served by the **CHAs** and that prescription medicines are being taken and refilled; however, there are currently no data available to support those claims.

As discussed earlier, the clinical **staff** does not receive a copy of the encounter forms filled out by **CHAs**. This means that the clinicians must rely on informal communication among themselves, the **CHAs** and the CHAP coordinators. Since the clinical and CHAP Staffs are small, the informal communication has thus far been successful in conveying health-related information. However, the clinicians are not **formally** made aware of referrals the **CHAs** make for non-clinical services. Providers reported that they would especially appreciate being informed about referrals for medical services provided by the health center. They also acknowledged that learning about CHA referrals for social services would help them to better follow-up on all issues affecting their patients. Staff members are currently discussing whether a copy of the current state-issued CHA encounter form should be added to the patient record.

The gender of the **CHAs** has posed several challenges for the program. It is difficult for the female **CHAs** to directly interact with some adult male migrants. Due to cultural sensibilities of the migrants, some adult males are uncomfortable speaking to a female about a problem they may be having. Often men report their problem to their wives, who then relate it to the CHA. Having a male CHA might ease the apprehension of some males and facilitate communication about their health issues.

Some health education classes have not **been successful** because the group contained both men and women. For example, a class intended to educate the migrants about AIDS did not work because it was uncomfortable to have a frank discussion about sex in a mixed group.

Some of the **CHAs** have addressed this gender issue by encouraging their husbands to relay health information to their friends. The husband of a former CHA worked informally as a CHA along side his wife. His' input was considered very valuable, and convinced the program's coordinators that male **CHAs** would be an asset.

## CAMP HEALTH AIDE PROGRAM IMPACTS

Descriptive data on the Camp Health Aide program are easily obtainable. Retrieving data **on the** number of migrants the **CHAs** have seen, the types of problems the migrants **had**, and type of action the **CHAs** took are readily available. As discussed above, gathering data that will shed light on the outcomes of the program is more of a challenge. Due to the fact that the CHAR has operated in Northwest Michigan's service area for ten years, obtaining pre-and post data to compare is difficult. It is also difficult to compare the Northwest Michigan's service area with other service areas with high numbers of migrants because the CHAR is operated in those areas as well. It is equally difficult to gather data because the CHAR and clinical data bases at Northwest Michigan are not compatible and records are stored without a common patient identification number.

The descriptive data on the CHAR are encouraging:

### **Patient Access to Services** in 1996:

- **CHAs** had 1710 encounters with **1685** users (587 were first time users of **CHA** services).

- **CHAs** had 239 encounters with 20 prenatal clients and 73 encounters with 23 infants under one year old.
- **CHAs** were approached by 118 non-migrants for health advice, eight of whom were prenatal patients.
- **CHAs** made 687 referrals for migrants for services at the health center, dentist, social service agency, etc.
- **CHAs** performed 311 liaison encounters between the migrants and the health center staff and various agencies.
- **CHAs** administered basic first aid on 402 occasions to migrants.

#### Appropriate Use of Services in 1996:

- **CHAs** located 30 patients for Northwest Michigan's clinical staff.
- **CHAs** had 75 translation encounters for migrants.
- **CHAs** had 76 child and infant care encounters which include information on ensuring regular infant/well child exams, immunizations, and breastfeeding.

The CHAP may have an **impact** on the neonatal birthweights of children born to migrants<sup>19</sup>. Detailed in Exhibit 6 below, the statewide- CHAP average neonatal weight is impressive:

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<sup>19</sup> While Mexican-Americans generally experience good pregnancy outcomes, it is impressive that the birth outcomes for migrant women are positive.

**EXHIBIT 6**  
**AVERAGE NEONATAL WEIGHTS IN THE STATEWIDE CHAP**

YEAR	AVERAGE NEONATAL WEIGHT
1989	7lb. 14 oz
1990	7lb. 7 oz
1991	6lb. 6 oz
1992	7lb. 4 oz
1993	7lb. 2 oz
1994	7lb. 3 oz
1995	7lb. 9 oz
1996	7lb. 6 oz*

Source: Salinas, Michele 1996; \*Coalter, Mary 1996

**Patient Knowledge and Behavior**

- **CHAs** report seeing an effect on the migrants' confidence levels with using the health delivery system. **CHAs** often translate for migrants who are unsure of how to use the system, fill out papers and meet with 'an Anglo doctor. The **CHAs** help acclimate migrants to the system and teach them how to navigate within it. **CHAs** see that often migrants gain confidence and are able to go to their next appointment alone, without the help of their CHA.
- Migrants also reported an increased awareness of their health conditions and the proper treatment methods. One migrant woman reported learning how to measure her glucose levels, thereby controlling her diabetes. A young boy demonstrated how to use his toothbrush and toothpaste.

**In 1996:**

- **CHAs** had 1,032 health education encounters with fellow migrants.
- **CHAs** gave 44 group educational sessions attended by 883 camp residents.

## LESSONS LEARNED

- **CHAs can be most effective if they are members of the community being served.** Program coordinators have found that **CHAs who** are migrants can best work with other migrants. Because the **CHAs** are peers, they understand the culture and circumstances of fellow migrants. Additionally they speak the same language and are often related to the migrants in their camp. The migrants would not feel as confident to speak to an outsider as they do to another migrant.
- **Clear communication between participants makes for a successful program.** Northwest Michigan's clinical staff and the CHAP program staff are **small** and informal communication has worked well for conveying clinical information so CHA notes are not included in the patient's record. Larger programs with more staff members may find that informal methods of communication will not Suffice in conveying information about patients. Whether programs include encounter forms in the medical record, or clinicians record CHAP involvement with patients, interactions between program participants should be documented in the patient record.
- **CHA encounter records should be included in the patient record.** There is no formal documentation of the work done by **CHAs** in the patient's record. It would be beneficial to include a copy of **the CHA's** encounter form regarding both medical and non-medical related referrals in the medical record to assist providers in caring for their patients.
- **Outcome measures should be a priority. In** a time of shrinking resources, it is crucial that programs are able to document outcomes impacted by. the use of Community Health Workers such as the Camp Health Aides. For example, if a program is trying to show that the CHAP has an impact on migrants' appropriate use of health care facilities, data must be available to prove the link. Programs should devise ways to integrate their outreach data with clinical data generated by **other parts**

of the health center. The use of single **patient** identification numbers across programs may be a prudent step in integrating such data. Opportunities for improved data are arising as health centers update their management information systems (MIS). Centers should invest in the appropriate equipment, software packages and trained personnel to produce this data.

NORTHWEST MICHIGAN **HEALTH** SERVICES  
KEY INFORMANTS INTERVIEWED

Executive Director  
Site Director  
Local Coordinator Camp Health Aide Program  
Assistant Local Coordinator of Camp Health Aide Program  
Physician who interacts with Camp Health Aides  
Nurse who interacts with Camp Health Aides  
Camp Health Aides  
Patients who interact with Camp Health Aides  
Representative from Family Independence Agency

NORTHWEST **MICHIGAN HEALTH** SERVICES

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**APPENDIX F**

REGIONAL MEDICAL CENTER AT LUBEC  
CASE STUDY



## REGIONAL MEDICAL **CENTER** AT LUBEC

Regional Medical Center at Lubec (Lubec) runs a Community Health Worker (CHW) program in which they utilize AmeriCorps Community Health Corps members to provide informal, community-based, health-related services. The **AmeriCorps** members help to establish vital links between community-based health providers and members of the **DownEast** Maine community.

This case is part of a study being performed for the Bureau of Primary Health Care (BPHC) of the use of **CHWs** in Bureau-funded programs. The study concentrates on the impact that **CHWs** have on patient access to services; proper use of services; and patient knowledge and behavior. It also seeks to share the lessons that can be learned from existing CHW programs for use by providers and communities who are considering initiation of similar programs.

### BACKGROUND

Regional Medical Center at Lubec (Lubec) is located in Washington County, Maine, at the easternmost point of the United States. Washington County is very rural and remote; while its land mass is approximately 2.5 times the size of Rhode Island, its population is approximately 35,000. The health center, located in Lubec, is 120 miles from Bangor and the nearest tertiary care hospital. Lubec services about 4,500 people in Lubec, Whiting, **Trescott**, Cutler, Campobello Island (Canada), Dennysville, Cutler and unorganized territories\*.

**Lubec's** service area is one of the poorest in Maine and is referred to as the "Appalachia of New England." Twenty-three percent (twice the overall state rate) of the area's population falls below the federal poverty level. Many students do not complete a basic education: only 40 percent of students graduate from high school. Most people are employed in seasonal or part-

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\* *Regional Medical Center at Lubec. Application for Federal Assistance for Budget Period 1/1/98-12/31/99, pp. 1-2.*

time work as fishermen or fish packers; hence the **high** unemployment rate of approximately 14 percent<sup>21</sup>.

The area has among the highest rates of disease conditions in the state: the highest rate of deaths due to heart disease (116 percent higher than Maine's average); highest rate of cancer deaths among ages 25-64 (twice the state's rate); and the highest rate of deaths due to cerebrovascular disease among ages 25-64 (3.4 times the state's rate). The suicide rate among ages 25-64 is also the highest, more than three times the rate for Maine. The area has the highest rate of low birthweight births and infant mortality in the state, as well as the highest teenage pregnancy **rate**.<sup>22</sup>

Maine has begun instituting health care reform efforts. In 1996 the state implemented a case-management system for Medicaid patients called Prime Care in Washington County. As of June 30, 1996 there were 157,881 Medicaid beneficiaries in Maine, 1,316 of whom were enrolled in managed care (0.83 percent).

## **REGIONAL MEDICAL CENTER AT LUBEC**

Lubec, a non-profit 501 (c) (3) corporation, was founded in 1971 as one of the **first** community health centers (**CHCs**) in Maine. Since its inception, it has grown to be the largest and most comprehensive health center in the **state**, employing more than 100 people. Lubec receives a Community Health Center 330 grant, Comprehensive **Perinatal** Care Program and Healthy Schools, Healthy Communities funds, as well as Rural Outreach **money** from the BPHC. However, this BPHC funding constitutes only about four percent of Lubec's total budget; the lion's share of Lubec's support comes from foundations, federal, state and local sources.

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<sup>21</sup> *Ibid p. 1.*

<sup>22</sup> *Ibid. p. 1.*

The health center provides a full range of **services** including general primary medical care, diagnostic laboratory, emergency and urgent care services, obstetric services, comprehensive dental services, mental health and substance abuse services, and **case-management**. In addition, Lubec provides a fitness center, adult day care, home health care, child care services and limited transportation services. In 1996 Lubec reported 15,600 medical service encounters and 3,400 users; and more than 3,200 dental service encounters and 1,800 users. The health center is staffed by 2.8 full time equivalent (FE) family practice physicians, 0.9 **FTE** physician assistants, 1 **FTE** dentist, and 0.88 **FTE** dental hygienists.

Patients who visit Lubec are among the poorest in the area. More than 50 percent of the health center's patients fall below 150 percent of the federal poverty level; thirty percent of those have incomes below poverty.

**EXHIBIT 1**  
**SOCIOECONOMIC LEVELS OF LUBEC PATIENTS**

<b>Income As Percent of Poverty Level</b>	<b>Number of Users</b>	<b>Percent Of Users</b>
100 % and below	1,380	30
<b>101-150%</b>	1,012	22
151-200%	322	7
Over 200%	920	20
Unknown	967	21
<b>Total</b>	<b>4,601</b>	<b>100</b>

Source: Lubec UDS Data January 1, 1996 - December 31, 1996

The overwhelming majority of Lubec's patients are white (98.9 percent); one percent are Native Americans.

A large percentage of the patients in Lubec's service area are elderly. Lubec has the highest proportion of elderly population in Maine. Thirty percent of Lubec is over 60 years of age; the state average is about 15 percent." The Lubec area has the state's highest functional dependency ratio, or prevalence of people requiring assistance with normal activities of daily

<sup>23</sup> *Ibid* p. 17.

living.<sup>24</sup> Predictably, the health center serves many senior citizens; 18 percent of patients are over age 65. Exhibit 2 details the age distribution of Lubec's patients.

**EXHIBIT 2  
LUBEC'S USERS BY AGE**

<b>Age Group</b>	<b>Total Users</b>	<b>Percent of Total Users</b>
Under age 1	58	1
Ages 1-4	243	5
Ages 5-12	501	11
Ages 13-19	507	11
Ages 20-24	276	6
Ages 25-44	1239	27
Ages 45-64	992	22
Ages 65 and over	785	18
Total Users	4601	101*

Source: Lubec UDS, January 1, 1996 - December 31, 1996

\*Value exceeds 100 percent due to rounding.

Lubec relies heavily on publicly-funded insurance for reimbursement of its services. Almost half the payments to the health center come from some form of public insurance. Lubec also depends on sliding fee payment from its patients since nearly one-fourth of Lubec's patients are uninsured.

<sup>24</sup> *Community HealthCorps "Connector" Spring 1997, pg. 3.*

**EXHIBIT 3**  
**LUBEC'S PAYMENT SOURCES**

Payment Source	P e r c e n t
Medicaid	18
Medicare	15
Other Public Insurance	15
Private Insurance	<b>28</b>
None/Uninsured	24
TOTAL	100

**Source:** RMCL UDS Data, January 1, 1996 - December 31, 1996

**LUBEC'S AMERICORPS PROGRAM**

Lubec runs a CHW program in which AmeriCorps members are utilized to promote the health of the community. The AmeriCorps **CHWs** are involved with such diverse activities as providing child care, conducting community health education, homemaking, teaching **community** fitness and providing elder day care.

The AmeriCorps Community Health Corps program was first implemented at Lubec in 1995 and has just begun its third year. **The** health center was allotted 15 full-time AmeriCorps members in the project's **first** year, and 17 full-time and four part-time members for the second year. The program has been allotted 17 full-time members for its third year; however, as of **mid-**September only 12 slots were filled. Since the third-year group has not been fully assembled, and since data have not yet been collected, all descriptive data reported in this case study will be from the first and second program years, 1995 - 1996 and 1996 - 1997, respectively.

During 1996-1997 several members dropped out; one was suspended early in her term of service for a workers' compensation-related issue, two were released for cause and two relocated. Of the 20 enrolled for the majority of the year, all were white, six were male and 14 were female. **Nine were under the age of 20, one was over 50 and the rest were in their 30's.**

Four were married; seven were single parents. All had at least a high school diploma; nine had some college experience or a college degree.

AmeriCorps members receive a monthly stipend for living expenses and an educational award in return for their service. Those who have children receive child care services while they are members. On average, we estimate that it costs approximately \$14,405 per AmeriCorps member after accounting for such costs as benefits, supervision, administration and overhead. This cost does not include the educational allowance worth \$4,725 per full-time AmeriCorps member (\$2,363 per part-time member) received upon completion of service. Sixty percent of the program costs are paid by the Corporation for National Service through a grant to the National Association of Community Health Centers (NACHC); the remaining costs are covered by **Lubec**.

AmeriCorps members typically serve one year in an assignment; however, they may re-apply to serve a second year. Several members have returned for a second year. Five members from the first class stayed to serve a second term; three members from the second year have returned to serve again for the third year. Most of the AmeriCorps members interviewed said they expected to move on from the program after completing their service and return to school.

Recruitment of members has been a challenge. While the program attempts to recruit AmeriCorps members year-round -- advertisements are placed in various local newspapers and publications, schools and community centers -- the program coordinator has experienced difficulty in recruiting. The applicant pool has been small because the area is so remote and isolated. In addition, many of the local residents do not have the skills required to successfully fill some of the positions. Some jobs (e.g., in the health education department) require the ability to use video production equipment and word-processing skills. On the other hand, some of the jobs that require less advanced skills, such as adult day care provider and child care provider are difficult to fill because they are emotionally taxing and require a high degree of compassion and patience.

To help fill positions, the program **coordinator has** looked to the national AmeriCorps job application pool. In the second year, the program had five AmeriCorps members who were not from the immediate area. This has turned out to be a successful strategy; however, at first many staff members resisted the idea. Lubec's isolation has instilled **in the** local residents a skepticism of outsiders, or as they put it, those "from away." Over the last two years, staff have worked with AmeriCorps members "from away" and seen their contributions to the center and learned to trust them. Observers also point out that the local AmeriCorps members have also benefited from contact with those "from away" because it has broadened their perspective.

The program coordinator plans to approach recruitment in a slightly different way in the third year. Current third-year members will be expected to promote and market AmeriCorps to the community and recruit at least one applicant for Lubec's **HealthCorps** program or some other AmeriCorps project, thereby replacing themselves at the end of their service.

Training for AmeriCorps members is comprehensive and covers diverse topics from writing for the media, to sign language, to shellfish restoration. All members are trained in cardiopulmonary resuscitation (CPR), Occupational Safety and Health Administration (OSHA) and first aid. In previous years, the bulk of training has waited until the annual group training by NACHC and the state AmeriCorps groups. However, the program coordinator and AmeriCorps member supervisors thought this did not promote a strong sense of team among the members. In this the third year, training was performed in the **first** week. The **first** training sessions were dedicated to orientation, team-building **and** problem-solving activities. The AmeriCorps members got to know each other quickly and were immediately excited about the program.

The coordinator has **also** made other changes intended to promote more teamwork among the members. She will set up committees of members to work on specific projects, each led by a member. A committee has been set up to organize events and devise a community service calendar; another peer review committee will conduct Monday-morning-quarterback analyses of community service projects. Each group meeting will start with a team-building activity, have an agenda, and a recorder for recording minutes.

AmeriCorps members work in various departments of Lubec roughly 40 hours per week. The members are supervised by Department staff in each area. Members are expected to meet as a group with the AmeriCorps program coordinator at least once a week for professional development and training. While in the departments, AmeriCorps members work in specific positions designed to meet the most acute needs of the community.'

## **Program Content**

Given the enormous needs of residents in the service area, and Lubec's constrained resources, the health center saw the AmeriCorps Health Corps program as an opportunity to meet those needs while simultaneously utilizing and developing the skills of local residents. While a few AmeriCorps members are working in case-management and health education, the program focuses on providing services to the most needy in Lubec's service area: children, adolescents, and the elderly.

### **Children**

Lubec operates a child day-care center called the Quoddy Bay Children's Center. The center is licensed to care for children from six weeks to 12 years old. The Children's Center offers an infant, toddler and preschool program as well as a before-and-after-school program for school-aged children.

AmeriCorps members work in the Children's Center as child care providers, supervising children at play as well as guiding them through learning activities. Children at the center have learned about fish, holidays and fire prevention, and have visited the public library. In addition, pre-school children regularly participate in an interactive nutrition education program conducted by AmeriCorps members. The "Chef Combo" nutrition program features a hand puppet that introduces children to new foods, giving them an opportunity to taste, feel and smell them. Chef Combo teaches children how to eat a well-balanced diet.

Two AmeriCorps members were assigned to the Children's Center to work as Child Care Assistants during year two. Child Care Assistants are required to have a high school diploma or the equivalent and have one year experience working with children. An AmeriCorps member has been hired for the third program year to develop and implement a community nursery school program within Lubec's pre-school room. The member has a bachelor's of science in early childhood, special education.

In the program's third year, Lubec expects to increase the knowledge of general nutrition, personal hygiene and appropriate socialization skills of 20 children. The program will be considered successful if 75 percent of participating children can identify basic food groups with minimal cueing and if 80 percent increase their ability to perform appropriate personal hygiene tasks and socialization skills.

### **Adolescents**

The teenage population in Lubec's service area is often bored because the area is very isolated. Some part-time jobs (e.g., a cashier at a grocery store, or working at a gas station) are available, but many of these jobs go to adults struggling to raise a family. This boredom can lead some teens to be delinquent or experiment with substance abuse. Lubec has developed programs that utilize AmeriCorps members to address these issues as well as the issue of teen pregnancy. The **DownEast** Adventures, **DownEast** Healthy Kids, and International Friends Committee (**IFC**) Youth programs are designed to keep kids busy while simultaneously developing their thinking skills and physical abilities.

**DownEast** Adventures offers school-aged participants an experiential learning experience that helps develop thinking and promote skills that enable students to meet the challenges of the real world. The program, Project Adventure, offers both a low and high elements ropes course that provide challenges and attainable tasks that represent problems in student's lives. The low course is set close to the ground, while the high course offers elements 25 to 35 feet above the ground. The program also offers hiking, canoeing and overnight camping trips. These courses

and cooperative games require teamwork, goal-setting, and joint problem solving meant to inspire the area's youth to risk setting high goals for themselves.

One AmeriCorps member serves as a Youth Services Assistant with the **DownEast** Adventures program. The member develops and provides the **DownEast** Adventure activities to Lubec, local schools and organizations, and community members. In addition the member helps to market the program and develop an outdoor education curriculum. Lubec expects to reach at least 400 students and 50 adults through **DownEast** Adventures in the program's third year, and hopes that participants will show an increase in self-confidence and self worth. The program will be considered a success if 70 percent of the participants understand the values Project Adventure is attempting to instill.

The **DownEast** Healthy Kids program, run at Lubec's Fitness Port, enables **high** school students to work out at the **health** center's health club rather than take gym at school. The Fitness Port offers students fitness assessments, a personal training program, a full array of weightlifting equipment, cardiovascular machines, and aerobics classes. Students who work out at the Fitness Port for credit are taught about the human body and muscles affected by exercise and are tested on the material.

An AmeriCorps member is employed as a Community Fitness Provider and helps staff the Fitness Port and supervises students while at the health club. The AmeriCorps member transports students to and from the Fitness Port and is assigned to develop incentives, through a newsletter, games, contests, and social activities to promote youth involvement in fitness activities. This AmeriCorps member is also involved with assisting other community members who use the Fitness Port, and helps develop outdoor activities with another AmeriCorps member assigned to the **DownEast** Adventures Project Adventure program. In the program's third year, Lubec expects to promote fitness and increase the number of students participating in fitness activities to 184. Lubec will consider the program a success if 50 percent of the area's students participate in fitness activities once a week

International Friends Committee (**IFC**) is a community program dedicated to providing recreational, educational and social activities for youth in the Lubec service area. The program utilizes volunteers from the community who supervise activities and often act as mentors for student participants. The program is intended to offer youth stimulating activities that will occupy their time and thereby reduce the incidence of juvenile delinquency.

An AmeriCorps member is engaged, as the Community Recreation Coordinator with the **IFC**. She reports to the IFC, **DownEast** Adventures, and Lubec's AmeriCorps **Director**. The member coordinates **IFC** activities with the Fitness Port, Project Adventure, Lubec Summer Recreation and other related programs. She oversees **IFC** programs and activities, and collects all programming money. In addition, she coordinates the program's youth board meetings and promotes the program through press releases, posters, and articles. During the AmeriCorps program's third year, the IFC expects to have an impact on 75 students ages 5 and up. The program will be considered successful if it is able to reduce juvenile delinquency reports by 20 percent.

## **Elderly**

Lubec has created several programs to address the needs of the large elderly population in its service area. The elderly have a much higher incidence of disease, poverty, isolation, accidents and injuries. Many live alone or with an elderly partner who cannot adequately meet all their needs. The Homemaker and Adult Day Care Services were created to help address these needs and to offer many isolated seniors some social contact.

Homemaker Services are provided by Sunrise County **HomeCare** Services, through Lubec's Rural Outreach Project. Homemaker services are meant to provide elder clients with assistance in maintaining a safe environment, which will allow them to remain in their own home. Clients can receive six or more hours per month of homemaker services. The services provided include cleaning the client's bedroom, kitchen, bathrooms and other rooms by vacuuming, washing floors, polishing furniture and changing bed linens: cleaning laundry

(washed, dried and folded); shopping for food and household items and preparing and serving meals. Homemaker services do not include performing personal care services, feeding clients, banking for clients or transporting clients.

Two AmeriCorps members worked as homemakers in **the** second year. Homemakers are required to have a high school diploma or its equivalent, the ability to provide homemaking services, and concern for senior citizens. The program hopes to provide a safe environment for 25 seniors who choose to remain in their home but need assistance with homemaking skills. The program will be considered a success if 80 percent of clients have food shopping, laundry, cleaning and trash removal accomplished.

**Lubec** provides Adult Day Care at its High Tides Senior Center in two locations (Lubec and Eastport). The service is provided to clients who have a need for physical, social, or emotional support, either on a temporary or ongoing basis; many of the center's clients require extra attention and supervision. The center provides assistance with activities of daily living such as eating, grooming, hygiene, and toileting. The center can also provide specialized programming for clients with Alzheimer's disease. Perhaps most importantly, the program provides welcome respite for clients' family members who need a few hours to catch up on errands, housework or sleep.

AmeriCorps members developed and implemented the Adult Day Care Service, planning the programming, selecting and decorating the sites and marketing the services. AmeriCorps members also provide staffing for the centers (an employee of Lubec oversees both facilities). Lubec hopes that in time, as the service grows and revenues increase, full-time employees will be hired to staff and run the centers if the AmeriCorps program leaves the health center. Currently, the day care centers are not operating at capacity. The **Lubec** facility has five clients and the **Eastport** center has one client. Observers comment that they do not believe that the services have been publicized well enough, since many people in the community are not familiar with them.

Five AmeriCorps members served as elder day care service providers in the second AmeriCorps program year. These members were responsible for assisting clients with feeding, washing, personal care, etc., as well as providing clients with recreational and social services. The program hopes to work with 15 elders in the third project year, providing services to clients and respite for family care givers. The program will be **considered** a success if the number of clients served this year can be increased 100 percent over last year.

### **Case-management**

Lubec provides case-management for low-income clients of the health center. One AmeriCorps member performs case-management and attempts to increase clients' access to health and support services. In the third AmeriCorps program year, the program expects to deliver case-management to 60 clients. The service will be considered a success if the program increases its services to clients on a sliding fee scale by 50 percent.

### **Health Education**

Lubec operates a health education program that includes the development, production and dissemination of health education materials, videos, local cable television programs and newspaper articles. The Health Education Department at Lubec publishes The **Meridian**, a monthly newspaper targeted to adults ages 55 and older which promotes health issues for seniors and alerts them to resources, local events and activities. The newspaper includes profiles on older adults, their activities and interests and includes a calendar of events. Another publication, The **Lubec Light**, is published twice monthly and is targeted to all residents of Lubec. It features articles on local news and events as well as health-related stories. The third publication, Lubec's employee newsletter **Pulse**, keeps all departments abreast of each other's activities. Lubec's Health Education Department also produces educational video programs that are aired on the local cable television station. Two new programs are currently under development: the Prescription for Reading program and a patient appointment call back system.

Four AmeriCorps members were engaged to work in the Health Education Department during the second program year. The positions require a minimum high school diploma with a two-year college degree preferred. In addition, members should have experience with word processing, health education or using video production equipment. The program hopes to reach 1,000 people to increase their awareness of health issues and services through its publications and cable TV programming.

### **Community Service Projects**

In addition to working in various departments, AmeriCorps members participate in monthly community service projects. Such projects include a Coastal Clean Up in which AmeriCorps members joined more than 3,000 people who picked up 15 tons of debris on 242 miles of Maine shoreline. In addition, program participants organized the first blood drive in Lubec in 15 years. AmeriCorps members also helped decorate the town of Lubec for Christmas, and helped sort Toys for Tots donations for deliveries.

### **Challenges**

Some Lubec staff have come to depend on AmeriCorps members as essential departmental staff and resist when members are required to leave the department for AmeriCorps activities. Lubec has found that utilizing AmeriCorps members had enabled it to provide necessary new services like adult day care and expand others, like child care. In fact, the health center's Associate Director remarked in Lubec's employee newsletter that "if we had hired staff at \$6.00 an hour to fill these 19 positions, it would have cost the Medical Center about \$300,000 during the year. Without the help of these AmeriCorps and VISTAs who earn less than \$3.80 an hour, many people in our county would have been without assistance."<sup>25</sup> Departments within the medical center have come to rely heavily on their AmeriCorps members, and in some cases, see them as essential department members. Some departments are so short staffed, employees can not take a lunch break if the AmeriCorps member is not available. It has been a challenge for the

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<sup>25</sup> *Pulse*, vol 2, no. 7 (September 1997): 2.

coordinator to remind some **Lubec** staff that **AmeriCorps** members are to be viewed as additions to departments, rather than essential employees. Through frequent meetings with supervisors the project coordinator has tried to communicate the goals of the program and members' responsibilities to the program.

The yearly turnover of AmeriCorps members has had an impact on departments and clients. Because departments have come to rely so heavily on their AmeriCorps members, when a member's term of service ends, the department is often left without adequate coverage, and clients are affected. Supervisors contend that training a member for some positions requires weeks or months. Some feel that, just when their members are working well in a position, their term of service is complete. In some cases there have been gaps of time in which no AmeriCorps member is assigned to a department and staff members have had to scramble to overcome the labor shortage. Occasionally there has been a brief overlap of AmeriCorps members in a department (before one member completes her service, another one begins); **however**, supervisors claim that it has not been enough time to allow the current member to tram the incoming member.

Now that AmeriCorps members are integrally involved in the adult day care and child care centers, it is unclear what effect turnover will have on the centers' operations. A gap in members assigned to the programs will most likely require the facility to close; and clients used to interacting with a specific individual may not adjust easily to a new care giver.

Some supervisors and AmeriCorps members stated that they were not sure that adequate training for some positions had been provided. For example, the adult day care program, which relies solely on AmeriCorps members, requires members to work directly with patients with acute needs, and severe conditions. Some observers stated that members were not made aware that some clients would have dementia or how to address it. Members were unsure how to appropriately deal with a client exhibiting agitation and aggression, or how to avoid being injured by such clients. Some members expressed an interest in receiving more work-oriented training

sessions at the national and state orientation and **training** programs (e.g., how-to sessions on child care, working with Alzheimer's patients, etc.).

AmeriCorps members are not currently utilized in Lubec's clinical departments (although one member does conduct case-management). The program's coordinator would like to utilize AmeriCorps members in these departments and use the members' skills to conduct patient reminder calls for appointments, help clinical staff make appointments, etc. However, the staff in these departments are skeptical of using AmeriCorps members, or any other non-professional in this capacity. Clinical staff have raised concerns about patient confidentiality. As of yet, this issue has not been resolved.

During the second year, a large number of the AmeriCorps members were young and inexperienced in working in a professional environment. Staff members report that last year's group had difficulty conforming to the professional atmosphere of **Lubec**, dressing appropriately, and having a serious work ethic. Although the program coordinator does not have a large applicant pool to choose from, this year's group (although still incomplete) is older. Only three members from the third year are younger than 20, versus nine from the second year.

The third-year members will also be given some additional clothing to wear when they are working in the health center. Since the AmeriCorps tee-shirt and sweatshirt are considered by many health center staff to be too casual for a professional workplace, this year's members will receive new clothing (a chambray shirt, golf shirt, jacket, etc.) with the AmeriCorps logo and patch. They will wear the tee-shirt and sweatshirt only **while** conducting community events.

Some members expressed a concern that they are seen as inexpensive labor and are therefore utilized to do grunt work, such as painting buildings, cleaning facilities, and cleaning up rubbish. Others expressed their belief that since they provided essential services to clients, it was more important for them to work at their department assignments full time, rather than spending time conducting community activities. These sentiments suggest that either the

members do not understand their roles and **responsibilities**; or that AmeriCorps members have been placed in essential positions that require their participation.

**Lubec** has one **12-person** van with which to transport clients from the various programs. Some AmeriCorps members expressed difficulty with sharing the van between programs, and claim that the youth programs require the van so much that programs for the elderly often cannot use the van when it is needed.

## **AMERICORPS PROGRAM IMPACTS**

Descriptive data on Lubec's AmeriCorps program are easily obtainable. Retrieving data on the number of clients at the adult day care and child care centers; the number of youth involved in activities; the number of clients visited by the case manager; and the number of health education articles published are readily obtainable. However, gathering data **that will** shed light on the outcomes of the program is more of a challenge. The sample size of clients at either the adult day care or child care centers is too small to make any meaningful conclusions. Further, it is very difficult to determine if AmeriCorps members have brought new patients to the health center because virtually all the residents in Lubec's service area utilize the center's services. It is equally difficult to determine the program's impact on patients' health since most AmeriCorps members are not directly or indirectly involved with clinical care. Finally, data on the program are not automated, thereby making it difficult to tabulate members' activities.

The descriptive data on the AmeriCorps program are encouraging:

### **Patient Access to Services**

During program year one (**9/1/95 - 9/30/96**):

AmeriCorps members opened and staffed two adult day care facilities licensed by the state to care for up to 12 clients. Five clients were enrolled in the program:

14 clients received homemaker services from AmeriCorps members;

137 students were enrolled in the DownEast Healthy Kids program at the Fitness Port and had completed 551 visits;

Eight youth joined a summer softball league; 10 youth participated in the fall soccer league; and recreational basketball was provided for 50 area youth;

40 teens participated in a drug free New Year's Eve dance, and 48 teens participated in a drug-free St. Patrick's Day dance.

During program year two (10/1/96 - 2/28/97):

Seven clients received services from the adult day care center (four at Lubec, three at Eastport);

128 Lubec students were enrolled at the fitness center with an average attendance of 98;

572 students participated in Project Adventure programs;

15 youth participated in PeeWee Soccer; 94 youth participated in PeeWee Basketball; and a total of 39 students grades K-6 enrolled in the After School Program.

### **Appropriate Use Services**

During program year one (9/1/95 - 9/30/96):

AmeriCorps members notified 25 Lubec patients who qualified for sliding fees; and notified 26 Lubec patients between 1/1/96 - 3/15/96 whose approved sliding fee was expiring; and 42 patients between 3/16/96 - 9/30/97 whose approved sliding fee was expiring;

Members assisted 37 clients with case-management;

AmeriCorps members notified seven parents of 10-month-old babies about available free lead poisoning screening;

Members assisted 15 clients at the Breast and Cervical Cancer Prevention clinic.

During program year two (10/1/96 - 2/28/97):

29 new clients were added to the case-management service; 111 clients were provided with case-management services from 10/1/96 - 12/31/96; and 120 clients received **case-management** services from 1/1/97 - 2/28/ 1997;

82 clients participated in the Breast and Cervical Health Program;

23 clients received 120 homemaker visits from 10/1/96 - 12/31/96; and 14 clients received 75 visits from 1/1/97 - 2/28/1997.

### **Patient Knowledge and Behavior**

During program year one (9/1/95 - 9/30/96):

Members conducted a total of 18 OSHA trainings for 358 people in the community;

11 call-in shows on health education topics were aired on the local **public** access channel;

Seven health education videos were produced;

12 presentations were given on nutrition at area schools;

A playground safety presentation was conducted for the PTA;

Members assisted with community blood pressure and cholesterol screenings;

159 articles written by **AmeriCorps** members appeared in the local newspapers;

Members helped plan and organize school smoking cessation program for the national stop smoking campaign in which approximately 200 students, teachers and community members participated.

During program year two (10/1/96 - 2/28/97):

14 pre-school children enrolled at the Children's Center regularly participated in the nutrition education curriculum "Chef Combo" between 10/1/96 - 12/31/97; and 10 participated between 1/1/97 - 2/28/97;

Five toddlers at the Children's Center participated in education units **on fire prevention, fish and holidays** between 10/1/96 - 12/31/97; and eight, toddlers

participated in educational units on reading, writing, shapes and holidays between 1/1/97 - 2/28/97;

46 articles written by AmeriCorps members were published in *The Lubec Light*;

15 videos were produced and footage for future videos was shot.

## LESSONS LEARNED

- **Bringing outsiders into a remote community may be useful.** It may be beneficial to integrate outsiders into a remote community such as Lubec, to broaden the experiences of local **CHWs** and community members.
- **Using CHWs to implement new programs could be beneficial.** It may be beneficial to utilize **CHWs** to implement a new program sorely needed by the community, but organizations should be cautious about relying too heavily on temporary workers. If **CHWs** are performing essential roles, the program may suffer when the CHW's term of service is completed, during gaps in service by a CHW, or before a new CHW is acclimated to the position. Additionally, using **CHWs** in essential roles in established departments may be cost effective, but organizations may be subject to the same pitfalls described above.
- **Clear communication between participants makes for a successful program.** The roles and responsibilities of **CHWs** should be made clear to supervisors as well as the **CHW's** themselves.
- **Conducting group training at the beginning of a program year helps develop teamwork.** Lubec found that delaying training until the national or state orientation and training meetings did not foster a sense of team work among the AmeriCorps members. This year, the program conducted its training sessions during the members' first week in service. This training strategy helped to orient members to the program and each other, and has resulted in an enthusiastic team of AmeriCorps members.

- **CHW programs should provide more assignment-related training.** The national and state AmeriCorps programs could consider providing training sessions relevant to member assignments rather than general orientation sessions. Several members requested **that** they receive training related to their work in order to better prepare them for their positions.
- **Outcomes measurement should be a priority.** In a time of shrinking resources, it is crucial that programs are able to document outcomes impacted by CHW involvement.

REGIONAL MEDICAL CENTER AT LUBEC  
KEY INFORMANTS INTERVIEWED

Chief Executive Officer  
Deputy Director  
Associate Director  
Chief Financial Officer  
AmeriCorps Program Coordinator  
AmeriCorps Supervisors  
AmeriCorps Members  
Participants in **DownEast** Healthy Kids  
High Tides Clients and Family Members  
International Friends Committee Board of Directors  
Breast and Cervical Cancer Volunteers

**REGIONAL MEDICAL CENTER AT LUBEC**  
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**APPENDIX G**

**SYRACUSE COMMUNITY HEALTH CENTER  
CASE STUDY**



## SYRACUSE **COMMUNITY HEALTH** CENTER

The Syracuse Community Health Center has two Community Health Worker (CHW) programs, the **AmeriCorps Community HealthCorps** program and the Comprehensive Medicaid Case-management program. Both these programs utilize individuals from the community who work to provide informal community-based, health-related services and who establish vital links between community-based health providers and persons in the community.

The Center for Health Policy Research was asked by the Bureau of Primary Health Care (**BPHC**) to study the use of **CHWs** in Bureau-funded programs. In particular, this evaluation is interested in the impact **CHWs** can have on patient access to services; proper utilization of services; and patient knowledge and behavior.

### BACKGROUND

Syracuse is centrally located in New York State in Onondaga County. According to 1995 Census estimates, the county has nearly 1.5 million residents. The population is broken down into the following racial and ethnic categories:

EXHIBIT 1  
**Onondaga Population by 'Race**

White	Black	American Indian	Asian/ Pacific Islander	Other	Hispanic*
418,533	37,724	3,259	6,842	2,615	7,195
89.2%	8 %	<b>.7%</b>	1.5%	<b>.6%</b>	1.5%

Source: 1990 U.S. Census Data

\*Hispanic figure is not included in the 100% total for other races.

Syracuse has experienced an economic crisis. Unemployment has risen due to the closing of major manufacturing plants and downsizing of large businesses in the area. **The** unemployment rate in Syracuse has risen from 6.8 percent to 7.0 percent, while the unemployment rate in Onondaga County increased from 4.3 percent to 4.4 percent.

Unemployment statistics for Syracuse's inner-city area have risen to an alarmingly high rate of 18.7 percent, up from 18.1 percent last year.

Medicaid managed care has been implemented in Onondaga county. Currently Medicaid managed care is operating under the authority of a 1915 (b) waiver on a voluntary. New York State has applied for an 1115 waiver from the Health Care Financing Administration (HCFA) to mandatorily enroll Medicaid recipients into managed care plans. HCFA approval of the state's program, known as The Partnership Plan, is expected sometime in 1997. In the meantime, the state has mandated the enrollment of no less than 50 percent of all Medicaid recipients into a managed care plan. There are already several managed care plans in Onondaga County vying for the Medicaid population.

Infant mortality is a significant problem in Syracuse. Over the last ten years the city has experienced one of the highest rates of infant mortality in the country. Blacks in Syracuse, in particular, experience an alarmingly high rate of infant mortality.

**EXHIBIT 2**  
**\*Average Infant Mortality Rates by Race**  
**Residents of Syracuse and Onondaga County, New York, 1986-1992**

Year	Onondaga County All Races	Syracuse All Races	Syracuse White	Syracuse Black
1986	10.2	13.6	9	27.4
1987	10.4	14.9	9.3	30.7
1988	10.6	14.6	11.7	22.4
1989	10.3	14.8	11.8	21.8
1990	9.1	14.3	11.2	20.6
1991	8.3	13.4	10.6	19.1
1992**	8.1	12.7	9.5	19.4

Source: New York State Department of Health, Bureau of Biometrics and OCHD, Office of Vital Statistics

\*3 Year-Average IMR for a given year is based on total infant deaths and total births occurring during that year and the preceding two years.

\*\*1991 and 1992 data are provisional pending final review by New York State Department of Health.

A black infant born in Syracuse between 1984 and 1988 was less likely to survive its first year than an infant born elsewhere in the nation. From 1984-1988, Syracuse averaged 43 infant

deaths per year, or a rate of 14.4 per 1000 births. **This rate** almost doubles for blacks in the city, who averaged about 21 infant deaths a year or 25.3 deaths per 1,000 births during the same time period. While blacks comprise **only about** 20 percent of the city's population, they experience 50 percent of the infant deaths (Onondaga County, 1993 p.2).

Local officials and community leaders were made aware of the infant mortality crisis and developed the Onondaga County Infant Mortality Action Plan in 1990. The plan stresses collaboration and cooperation among various social service and medical providers to insure that pregnant women and mothers receive a continuum of needed services. The county Departments of Social Services and Health joined together to develop and expand five **outreach/case-management** programs that help at-risk women and infants access medical and social services. These programs include the Comprehensive Medicaid Case-management Program (CMCM) which targets Medicaid-eligible pregnant women and infants up to 1 year of age; the Teenage Services Program (**TASA**), which provides counseling and case-management to pregnant and parenting teens; the Prenatal Care Assistance Program (**PCAP**) which coordinates care for pregnant women and infants newly eligible for Medicaid under revised state standards; and Public Health Teams, which target high medical-risk clients. These programs are linked by the Access Center, an automated case-management and referral system that collects and distributes computerized data. The system monitors and tracks services for families at risk for infant mortality. The case-management programs have provided services for more than **5,900** women since the Access Center was created in 1990.

The infant mortality plan and the case-management programs seem to have had some impact. From 1990-1992, the overall infant mortality rate (**IMR**) for Syracuse dropped from 14.4 to 12.7; and the rate for African-American infant deaths dropped from 25.3 to 19.4 (Onondaga County, 1993 P.2).

## Syracuse Community Health Center

The Syracuse Community Health Center (Syracuse) was organized and founded in early 1978. The health center was built on the site formally occupied by the Syracuse Neighborhood Health Center which closed late in 1977. Syracuse has three satellite health centers located throughout the city's poorest areas. The main facility is situated in the hub of the principal downtown business district and is centrally positioned in Syracuse's inner-city district. The Center's first satellite facility, opened in 1993 is located in the eastern segment of Syracuse's Primary Service Area. The second facility is located in the western part of Syracuse's Primary Service Area, and was opened in 1995. The third facility, located in the city's south side, is scheduled to open in 1997.

Syracuse receives a Community Health Center 330 grant, Comprehensive Perinatal Care Program, and Ryan White Title IIIb HIV Early Intervention funding from the Bureau of Primary Health Care. The Center provides a full range of services including general primary medical care, diagnostic laboratory and X-ray procedures, urgent care center, obstetric and gynecological services, dental care, mental health and substance abuse services, pharmacy and case-management. In 1996 Syracuse reported more than 146,000 medical encounters and 35,000 users; and more than 31,000 dental service encounters and 11,000 users.

Syracuse's clients are among the most poor and at-risk in the city. The health center's primary service area contains 70 percent of the city's population with incomes below 100 percent of poverty, and 66 percent of the population with incomes below 150 percent of poverty. Syracuse serves 75 percent of the city's Medicaid recipients and 50 percent of the city's elderly population (65+). Syracuse cares for 58 percent of the city's residents who have not received their high school degree; and 66 percent of the city's single parent female headed households. The health center cares for 84 percent of the city's minority population.

**EXHIBIT 3**  
**SYRACUSE USERS BY RACE/ETHNICITY**

RACE/ETHNICITY OF USERS	PERCENT
Black (non-Hispanic)	<b>50</b>
White (non-Hispanic)	36
Hispanic (all races)	8
Asian/Pacific Islander	2
American Indian/Alaska Native	1
Unreported/Unknown	3
<b>TOTAL USERS</b>	<b>100</b>

Source: Syracuse Community Health Center, UDS, January 1, 1996 - December 31, 1996

Syracuse serves as a primary safety-net provider for the city's poorest patients. The number of primary care physicians in Syracuse, excluding those physicians who work at Syracuse, available to treat individuals who are either on Medicaid, are under-insured, or who have no insurance is 12.6, while the medically and financially indigent population totals approximately 66,000. This results in a population to physician ratio in excess of 5,200 to 1 for this population group. Likewise, it is difficult for Medicaid patients and the uninsured to access obstetrician/gynecologist services from private providers outside Syracuse. According to the Central New York Health Systems Agency, the equivalent of 4.3 private Obstetrician/Gynecologists in Syracuse are receptive to treating the poor and working poor female population; this brings the Obstetrician/Gynecologist physician to population ratio for this population group to 4,460 to 1. Dental providers are also limited. There are fewer than 2 **FTE** private dentists who accept Medicaid patients within Syracuse's service area. Dental services for the uninsured/working poor populations are virtually unavailable outside of Syracuse.

The insurance status of Syracuse patients has begun to shift. The number of Medicaid recipients receiving services at Syracuse decreased from 55,556 to 54,316, while the number of Medicaid recipients enrolled in prepaid programs increased from 11,266 to 18,285. Additionally,

since 1996 the number of uninsured persons **accessing** the services of Syracuse increased by approximately 13.7 percent (from 14,530 users to 16,527).

Syracuse has created its own Medicaid managed care plan, called Syracuse Total Care, **Inc.** With a current membership of approximately 9,000 lives, the plan has enrolled approximately 45 percent of the county's Medicaid managed care enrolled population. Total Care has been approved as one of six managed care contractors in Onondaga County when the state's Partnership Plan is approved by **HCFA** and implemented. It is expected that competition with five other health plans will reduce the numbers of Medicaid managed care clients enrolled in Total Care, increase the center's percentage of uninsured patients and increase the amount of uncompensated care delivered by Syracuse when patients enrolled in other managed care plans present at the Health Center for services.

#### SYRACUSE'S COMMUNITY HEALTH WORKER PROGRAMS

Syracuse runs two Community Health Worker (CHW) programs. The **first** is the AmeriCorps **HealthCorps** program which began in 1996. The second CHW program, the Comprehensive Medicaid Case-management program (CMCM) was begun in 1989 as a pilot program and was permanently established in 1991 through a contract with the Onondaga County Department of Social Services.

#### AMERICORPS PROGRAM

Syracuse determined that **all** its patients required education about the importance of preventive primary care. In particular, members of its managed care product, Total Care, Inc. needed education on how to use a managed care system. The Health Center saw the AmeriCorps Community **HealthCorps** program as an ideal vehicle to fulfill their educational needs.

Syracuse has hosted an AmeriCorps program for two years. In 1996, the program's first year, the health center was allotted 15 full time members. In the present year, the program is

operating with 14 members. The Center was **allotted** 16 members for 1997; however, two dropped out of the program.

The program offers the members an excellent opportunity to provide community service, while receiving personal and career development and training. The Health Center benefits from the program by receiving additional support for its community education component and member services. In addition, the AmeriCorps program affords Syracuse the chance to train individuals from the community for better employment opportunities both in and out of the health care field.

AmeriCorps members receive a monthly stipend for living expenses and an educational award in return for their service. Those who have children receive child care **services** while they are members. On average, we estimate that it costs approximately \$20,775 per AmeriCorps member after accounting for such costs as educational stipend (in lieu of salary), benefits, supervision, administration, overhead, and an educational allowance. Sixty-three percent of the program costs are paid by the Corporation for National Service through a grant to the National Association of Community Health Centers (NACHC); the remaining costs are covered by Syracuse. Funding from the Corporation for National Service covers the members' stipends, fringe benefits, educational conferences, supervision, operational costs such as supplies, and indirect costs. This funding is based on yearly congressional appropriations and therefore is not guaranteed.

AmeriCorps members typically serve one **year** in an assignment; however, they may **re-**apply to serve a second year. Most of the AmeriCorps members interviewed said they expected to move on from the program after their year of service was completed and either return to school or go directly into the workforce.

The program attempts to recruit AmeriCorps members year-round. Active AmeriCorps members distribute recruitment materials at all public events and in local high schools and colleges. Additionally, public services announcements are broadcast advertising the program. The Syracuse received 160 applications from individuals interested in becoming AmeriCorps

members for the 1997 program. Of those, 60 **applicants were** interviewed and the original 16 were selected. In the second year, the Syracuse staff and the program coordinator made a conscious decision to recruit more individuals from the community that reflected the demographics of the community. This decision caused the second group selected to differ from the first, many of whom had completed a college education.

The **AmeriCorps HealthCorps** program has three community service objectives:

To provide a medical home to residents of medically under-served areas.

To assure appropriate utilization of health care services.

To link community residents and primary care patients to other health and social services.

To accomplish these objectives, the 1997 program was designed to have **AmeriCorps** members working in the various departments throughout Syracuse's main facility and satellites approximately 33 hours per week. The members are supervised by the Department heads in each area. Members are expected to meet together as a group with the program coordinator several times a week for professional development training and attend guest lectures. While in the departments, the members work on various projects related to patient services. They place calls to patients reminding them of an upcoming appointment, attempt to book appointments for patients who have not visited the Center in a while, reschedule missed appointments and **call** patients from the Center's urgent care center to link them to primary care.

In addition, members work together on group projects which are executed in the community to educate community members about health and safety. For example, members have worked on projects instructing children on **poison** prevention and fire safety; and worked at health fairs teaching the importance of immunizations, breast cancer awareness and the shortage of bone marrow donors within the African-American community.

Participants in the 1997 program are members of the Syracuse inner-city community. Most have lived in the community for many years. All the members are minorities (13 African-American and 1 Hispanic, who speaks Spanish). The youngest member is 17, while the oldest is 40. The average age of the members is approximately 24 years old. Five of the members are male, the remaining nine are female. Three members are married (two to each other) and the rest are single. Most members have children. Three members have had 1-2 years of college experience, three are studying to take their graduate equivalency degree, and the rest are high school graduates.

As constituents of the inner-city, the members reflect the same challenges faced by many clients of the health center. Some of the members are former substance abusers, others have been or currently are on public assistance. At least one member was homeless at the time of his application and interview for the program (he has since found housing); others have lived in shelters. Some have faced inner-city violence when family members were killed.

Training for **AmeriCorps** members is comprehensive and covers diverse topics such as phone etiquette to CPR training. Many of the current **AmeriCorps** members have not worked in a professional setting before and require basic work skills training. For example, many required coaching on proper office attire and professional work ethic. Virtually all observers, including members themselves, described the difficulties in learning some of these skills. However, as of mid-way through the program year, most challenges had been overcome and most members were able to perform their job requirements.

Numerous challenges have arisen between some department heads and members:

During year one, some supervisors had not been involved in program planning and development. This resulted in some supervisors not understanding their role clearly and the role of the members themselves. It has been difficult to fully integrate members into some of the departments. Supervisors had more involvement in program planning and

development for year two. The program **coördinator** expects they will have even more input in planning for year three.

Some supervisors and department staff have misunderstood the **AmeriCorps** mission and the job requirements of members. Many staff members did not understand the mission of the program, and questioned why **AmeriCorps** members left the department to work on community activities. Some members expressed difficulty in working with staff members who expected members to act as the department gofer or support staff. The program coordinator worked to ensure that the assignments given to members are meaningful and will advance **HealthCorps** objectives and goals.

Some supervisors were too busy to give members the extra support they needed. Some supervisors were not able to take the time to formally train members in their department positions. Some assumed that the members would be able to perform their services without additional support. In some **cases, responsibility** for supervision of the members is shifted from the supervisor to the **AmeriCorps** program coordinator.

It took months for some members to learn a work ethic and be productive at their jobs. Some members had high absenteeism rates, some wore inappropriate clothing, and some did not know how to speak in a professional manner on the phone to patients. Some supervisors reported that it took members four months to work effectively in the department.

The Program Coordinator expects to change members' work schedule considerably for the third program year. Ideally, it is expected that members will work in the departments only 20 hours per week and spend the rest of their time designing, planning and implementing activities in the community. It is expected that department supervisors will take a more active role in the program planning and development, so they may Work more effectively with future members.

While some challenges have arisen, **many issues** have been resolved by the members, their coordinator and supervisors. In general, supervisors claimed they were happy with the work the members accomplished and were proud to see the professional and personal growth of the members. When asked if the supervisor would want to lengthen the tenure of an AmeriCorps member from 9 months to 1 to **1 ½ years**, **most** said no, they would prefer to see as **many** people as possible have the opportunity to join the program. Most were not dismayed by the prospect of spending another several months training another member. Rather, supervisors sought ways to become better teachers to their members and to communicate their expectations more clearly.

Discussions with AmeriCorps members revealed they received more than job training from their placement. Many spoke of their desire to give back to the community, to be role models, and to help those in need. Some stated that, although their original interest in the program was due to the educational award, they have learned about the value of public service and the impact they can have on their community.

## AMERICORPS PROGRAM IMPACTS

### **Patient Access to Services**

The first objective of **Syracuses** AmeriCorps program is to **provide a medical home to residents of medically underserved areas**. In order to achieve this, the program targets residents of the underserved area and users of the Center's urgent care service who have no identified primary care physician. The members hope to contact 3,000 such individuals and link 1,500 to primary care physicians and have 1,000 present for their appointment. To measure their success in achieving this objective, AmeriCorps members count the number of educational materials distributed, calls made, home visits, appointments scheduled and patients who follow through on their appointments. Additionally, on a yearly basis, they make pre and post comparisons on the numbers of individuals contacted, the number linked with a primary care physician, and the number who show-up for their appointment.

Year-end data are not yet available for the **second** year; however, preliminary data shows that AmeriCorps members are making contacts with community members:

In 1996 the number of users in Syracuse's family practice specialty increased by 49.5 percent (3,408 in 1996 versus 2,280 in 1995).

Between October 1, 1996 - February 28, 1997, AmeriCorps members:

-Contacted 1,137 users of Syracuse's urgent care center, the extended hours department and scheduled 595 appointments with medical providers in adult medicine, pediatrics, and obstetrics/gynecology.

-Contacted 2,669 patients who have visited **the emergency** room for acute care services and have no medical provider, and scheduled 882 appointments with a medical provider for an acute care visit. A **total** of 342 reminder letters were sent to these patients listing the upcoming appointment and the name of the medical provider.

### **Appropriate Use of Services**

The second objective of the AmeriCorps program is to **assure appropriate utilization of health care services**. The program aims to decrease inappropriate use of emergency rooms and **the** Center's urgent care service. In addition, it plans to increase utilization of primary care services. The members plan to contact 3000 inappropriate emergency room users, inappropriate users of the Center's urgent care facility, and families with newborns and infants older than age one. The program **hopes** to achieve 90 percent compliance for newborn appointments within the first 2-4 weeks of life; and 80 percent compliance for pediatric appointments. In order to measure their success, program members **count the** number of home visits made, phone calls placed, educational activities and follow-up activities. In addition, pre- and post- comparisons

are made on the numbers of individuals **contacted**, **the** number of inappropriate users of the emergency room and urgent care center, and percentage that present for their appointment.

Since hospital emergency rooms are not electronically **linked** with Syracuse's information systems, emergency room data are difficult to obtain for individuals not enrolled in Total Care, the Center's managed care plan. Year end data are not available for the program's second year; however, preliminary data is encouraging:

In 1996 the number of users of extended hours (Syracuse's urgent care department) was reduced by 14.5 percent from the previous year (27,112 in 1996 versus 31,707 in 1995).

Between October **1, 1996** - February **28, 1997**, **AmeriCorps** members:

--**Tracked** patient activity in Syracuse's dental department daily, and reviewed patient records for missed appointments on the previous day, and identified patients in need of an annual dental screening. Members contacted 395 of 940 dental patients by letter and telephone to impress upon them the **value** of annual dental screens in preventive dental health care and to reschedule the missed appointment. Members also reviewed calling logs and appointment schedules each day to ensure appropriate utilization of Syracuse services.

-Reviewed patient charts and appointment records in Syracuse's obstetrics/gynecology department to identify patients in need of an annual 'pap and/ or cervical exams. Of 3,866 patients already scheduled for appointments, 908 were successfully contacted and reminded of their upcoming exams. An additional 98 charts were determined in need of a yearly pap and/or cervical exam.

--Reviewed pediatric patient records for children under the age of one year to ensure they were current in their **exams/immunization** records and lead

screenings. Of 2,336 patients **contacted**, 1,006 were scheduled for appointments and sent letters of notification.

--Determined the need for **lead** screening services and follow-up of Total Care non-users (patients who had not scheduled an appointment at Syracuse for more than a year). Of 3,486 contacts, 3,039 follow-up reminder letters were sent and 100 appointments were scheduled.

### **Patient Knowledge/Behavior**

The third objective of the AmeriCorps program is to link community **residents and primary care patients to other health and social services**. This objective is intended to increase patients' knowledge of and improve their access to other health and social services. AmeriCorps members plan to contact 2,000 new patients, high-risk patients, \* previous Comprehensive Medicaid Case-management (CMCM) patients and community residents and inform them about other health and social services available to them. Of the **2,000** contacted, members hope to refer 1,000 to other health and social services. To measure the programs success in achieving this objective, members will measure the number of new patient orientation and health education activities, the number of referrals made and the number of closed CMCM cases that were followed-up. Data for **the** present program year are limited; however the program has enjoyed past success:

From **1995-1996**, **2,422** patients were linked to other health and social services through new patient orientations, preventive health education, referrals, interviewing of high risk patients, community outreach and collaboration and follow-up on closed and pending CMCM cases.

Between October 1, 1996 and December 31, 1996, members at Syracuse's east satellite reviewed 120 patient charts of identified diabetics requesting diabetic education/information classes. Of the 120 patients identified, **100** later made visits to the

satellite facility, 19 of these patients made ~~and~~ **kept** their appointments, and another 30 were tracked to determine their need for a smoking cessation program.

## **COMPREHENSIVE** MEDICAID CASE-MANAGEMENT

In response to the alarmingly high rate of infant mortality in Syracuse and disproportionately high rate of **IMR** for the African-American population in the city, Syracuse operates a Comprehensive Medicaid Case-management (CMCM) program which provides ~~case-~~ management services to pregnant women and women with children under the age of one who are at risk for infant mortality. Women who are no longer pregnant, or whose children are above the age of one, lose eligibility for the program. At-risk women are identified either by provider referral or because they missed an appointment to **re-certify** their Medicaid eligibility, or did not claim a Women, Infants and Children (**WIC**) check. Participation in the program is voluntary; the decision not to participate does not affect a woman's eligibility for public assistance, medical assistance, food stamps or any other service. While the program has the capacity to serve 250 women and their children at a time, it cannot meet the needs of all those eligible for the program. Since 1992, the program has served more than 1,080 families; there are currently 50 cases pending to be assigned.

Today the program employs 11 CMCM workers: eight case aides; two case managers and one program coordinator. These CMCM workers are employees of the health center and work approximately 40 hours per week. On average, ~~we~~ estimate that it costs approximately \$24,313 per CMCM worker after accounting for such costs as salary, benefits, supervision, administration, and overhead. The CMCM program is paid by billing the state Medicaid program on a per visit basis. As the Medicaid managed care expands, the stability of this type of funding mechanism becomes questionable.

The CMCM staff are all females who come from the community served by Syracuse. The staff is racially mixed: five are African-American, three are Hispanic, one is Native

American and two are white. The average age of Syracuse's CMCM workers is 40. The CMCM program has employed three male staff members in the past.

Turnover in CMCM staff is not deliberate; if and when a staff member does leave her position, it is voluntary. Most of the CMCM staff have worked in their positions for at least three to four years. Three staff members were hired within the last year. Recruitment for CMCM workers is done through Syracuse's personnel department, and job vacancies are posted in the Health Center. Case Aides are required to have a high school diploma, while case managers are required to have a bachelor's degree in counseling, social work, human services or a related field, plus a practicum in **case-management** or a year of experience with the client population.

Training for CMCM workers occurs mainly on the job. After reading the CMCM manual, new staff shadow experienced staff members until they feel confident they can handle their own case load. Each CMCM Case Aide has a case load of 25; case managers handle 19 cases and the program coordinator handles six cases. The CMCM workers are sited at various health care facilities across Syracuse: two are stationed at the university hospital; three are located in Syracuse's main facility, while two are at the center's satellites; three are at area hospitals and one is at the Department of Mental Health focusing on pregnant substance abusers.

Services delivered by CMCM staff include: 1) Intake and Screening, including case finding, and referrals; 2) Assessment of basic environmental needs, family structure, psychological/emotional needs, education/employment needs, abuse or neglect factors, criminal justice involvement, medical service needs as well as pre-natal risk indicators and pediatric risk indicators; 3) Case-management Planning; 4) Coordination of Case-management Services; 5) Crisis Intervention; 6) Monitoring and Follow-up of Case-management Services; 7) Counseling; and 8) Exit Planning.

Case Aides and Case Managers strive to give clients the tools they need to become **self-sufficient** **after** they no-longer qualify for the CMCM program. In addition to arranging for

medical care, nutrition education, day care, **transportation** and housing, often CMCM workers encourage clients to find a job or enroll in school so they may care for themselves and their

**AmeriCorps** expected to pick up where the CMCM program ends and continue case-management services for those clients still in need.

### **CMCM Program Impacts**

Data are difficult to obtain on the **CMCM** program. Due to the small sample size and the limited duration of the program, it is not possible to determine the **impact the** CMCM program has had on infant mortality in Syracuse. Additionally, since local social services departments are not linked with Syracuse's information system, it is not possible to determine the exact number of referrals made and services received by clients. It is equally difficult to gather data on referral and services from within Syracuse because the CMCM program is not automated at Syracuse. In addition to conducting chart reviews, the program coordinator can produce such information as the number of active, or closed cases. However, data is not readily available regarding the number of pregnant women, the number of women with children, or the birth weights of children born to clients. While data collection needs improvement, the data that have been collected are encouraging.

## **Patient Access to Services**

A tenet of the CMCM program is that optimal services can be provided to the perinatal patient when care **occurs early** in pregnancy and on a continual basis. To ensure that this care is administered to clients, one goal of the program is to improve access to prenatal and postpartum women. To achieve this they set an objective for fiscal year 1996 to provide postpartum care for 87 percent of **Syracuses** postpartum patients within six to eight weeks of delivery by December 31, 1996. As of October 1, 1996, **88** percent of postpartum patients had returned for care within 6-8 weeks of delivery.

CMCM workers constantly assess clients' individual service needs and work to make those services accessible. Case Aides escort clients to facilitate access to services, and link clients with community resources and services provided by diverse organizations. In addition, Case Aides routinely schedule medical appointments at Syracuse and other **hopsital** sites for clients. This increased access to care may have an impact on infant mortality figures: Syracuse's incidence of low-birth weight births for 1996 was 7.9 percent, a decrease **from** 9 percent in 1995. In 1995, there were no infant deaths in the CMCM Program.

## **Appropriate Use of Services**

A second objective of the CMCM program for fiscal year 1996 was to improve the show rate for follow-up prenatal appointments from 70 percent to 72 percent by December, 1996. This objective was met with a show rate for follow-up prenatal appointments of 73 percent in 1996, up from 70 percent in 1995.

The CMCM program had additional impacts on **utilization**:

As of October 1, 1996, **88** percent of postpartum patients had returned for care within 6-8 weeks of delivery, an increase from 80 percent in 1995.

The newborn follow-up rate for 1996 was 98 percent, up from 95 percent in 1995.

### **Patient Knowledge/Behavior**

Thus far, the CMCM program has not measured its impact on patient knowledge and behavior. However, a central focus of the CMCM program is to educate clients on how to access social services and how to become self-sustaining after they no longer qualify for the program.

CMCM workers link clients with both medical and non-medical services. Staff have linked clients to important services in Health Center:

Appointments are made with nutritional services for all new obstetric patients at the time of their assessment. These scheduled appointments are followed-up at the next obstetric appointment. The nutritionist reviews all obstetric logs to ensure that all prenatal exams are seen. During 1996 WIC services became available on site, further increasing the number of obstetric patients keeping their nutritional appointments.

Syracuse added a smoking-cessation component to its child birth classes in 1996. The smoking-cessation sessions will be expanded to include the gynecological population in 1997. Patients at high risk for drug use continue to be referred to Syracuse's counseling and psychological services (CAPS) program for follow-up.

### **LESSONS LEARNED**

Syracuse's experience using Community Health Workers can be beneficial to other BPHC-funded programs in their attempt to develop similar projects using **CHWs**. Some of the lessons Syracuse has learned are shared below:

**Syracuse has found that employing people from the community with few job skills or experience is valuable.** People who otherwise might not have the chance are able to learn professional skills, gain self-confidence, and esteem in the community. **CHWs** were proud to give back to the community. **Many** may serve as role models for others who are at risk. Additionally, the program gives the host site an opportunity to give to the community by training individuals with few skills.

**Intensive member orientation and training makes up for the short program duration.** **CHW's** underwent an extensive orientation and **training period** that acclimated most to the Health Center and their job requirements.

**Ongoing and periodic training should be done for non-CHW internal staff to give them a thorough understanding of the CHW program, its mission and goals, and the role of the CHW.** Staff members should understand the opportunities the program will afford for their department, the Health Center in general and the community at-large. An external speaker from the **AmeriCorps** would help to (re)-introduce the program to the staff.

**Sponsoring more than one CHW program can obscure the roles of both CHWs and non-CHW staff, however, this can be eased by clearly defining the programs and their rules.** When running multiple programs with different funding streams and rules, it is necessary for managers to find ways to continuously reconcile these administrative differences in order to deliver services to clients with as little discontinuity as possible.

**Supervisors need to be clear about their expectations of CHWs, and must be willing to devote the extra support and attention that may be needed by some members.** Extensive resources may be required in order to train some members.

**CHWs are anxious to spend more time in the community.** Re-adjusting the member's work schedule to allow for maximum time in the community may help to make

the members more efficient during **the time** they spend in the Health Center. Additionally, more community involvement will elevate the program's profile within the community and increase the likelihood that members will serve **as** role models for at-risk youth.

**Using CHWs to extend existing successful projects can be beneficial.** At Syracuse, the CMCM program is both successful and necessary. However, the program as designed cannot meet all the needs of the community. CMCM clients lose eligibility for the program when they are no longer pregnant, or when their child reaches the age of one. Some clients may not be ready for self-sufficiency when their eligibility expires and may need access to a case manager who can help coordinate services. Syracuse's use of the **AmeriCorps** members to extend this program, provides a life-line for some of the most **at-risk** women and children.

**Outcomes measurement should be a priority.** In a time of shrinking resources, it is crucial that programs are able to document outcomes impacted by CHW involvement.

SYRACUSE **COMMUNITY HEALTH** CENTER  
KEY INFORMANTS INTERVIEWED

President and CEO  
Sr. Vice President Finance  
Sr. Vice President Corporate Health Services.  
Sr. Vice President Operations  
Vice President Planning and Development  
Vice President Finance  
Vice President Patient Services  
Vice President Corporate Advancement  
Director, Medical Records  
Director, Counseling and Case-management  
CMCM Program Coordinator  
AmeriCorps Coordinator  
Sr. Nurse Manager  
Nurse Manager  
Nurse Coordinators  
MIS Department  
AmeriCorps Members  
CMCM Case Aides  
CMCM Case Managers  
CMCM Clients  
AmeriCorps Clients  
Managed Care Coordinator, Onondaga County Dept of Social Services  
Director, Access Center, Onondaga County Dept of Social Services  
Women Infants and Children, , Onondaga County Dept of Social Services  
Director, Spanish Action League

SYRACUSE **COMMUNITY HEALTH** CENTER  
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**APPENDIX H**

WEST ALABAMA HEALTH SERVICES  
CASE STUDY



WEST ALABAMA **HEALTH SERVICES**, INC.

West Alabama Health Services (West Alabama) ‘runs a Community Health Worker (CHW) Home Visitor program. This program use individuals from the community who work to provide informal community-based, health-related services and who establish vital links between community-based health providers and persons in the community.

The Center for Health Policy Research was asked by the Bureau of Primary Health Care (BPHC) to study the use of **CHWs** in Bureau-funded programs. In particular? this evaluation is interested in the impact **CHWs** can have on patient access to services; proper utilization of services; and patient knowledge and behavior.

BACKGROUND

West Alabama is located in the southern portion of the state. It was founded in 1974 and became operational in 1975 as the first Community Health Center (CHC) in Alabama under the U.S. Public Health Service. It has grown from one site to occupying 10 sites in eight **counties**<sup>26</sup>. According to the 1990 U.S. Census, more than 282,000 people live in these counties. Exhibit 1 shows the population breakdown:

EXHIBIT 1  
POPULATION BY RACE  
IN EIGHT ALABAMA COUNTIES WITH WEST ALABAMA SITES

WHITE	BLACK	OTHER
161,317 59%	108,044 40%	3,121 %

Source: 1990 Census data

West Alabama’s service area will double in the near future with its merger with two other

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<sup>26</sup>West Alabama has centers in the following counties: Choctaw, Clarke, Greene, Hale, Lowndes, Marengo, Sumter and Tuscaloosa.

non-profit health care organizations based in **Tuscaloosa**. When the merger is complete West Alabama will deliver services at 25 sites in 18 rural counties in west central and central Alabama.

West Alabama receives a Community **Health** Center 330 grant, Special Infant Mortality Reduction Initiative funds, and National Health Service Corps Placements from the Bureau of Primary Health Care. In addition, West Alabama has funded many of its programs with grants from the federal and state governments and private foundations. One such program, West Alabama Public Transportation (**WAPT**) is funded by a federal grant for public transportation for non-urbanized areas.. This program includes an astonishing 180 vans that not only transport patients to West Alabama's sites but also carries patients and local residents to health **and** social services agencies for a nominal fee. The vans are also available for rent by community groups or employers looking for reliable transportation.

West Alabama provides a full range of services including general primary medical care, diagnostic laboratory, and X-ray procedures, emergency medical services, urgent care, obstetric and gynecological services, podiatry, dental care, pharmacy, and case-management. In the near future, West Alabama will provide a range of optometry services at one of its newly acquired sites. **In** addition to these medical services, West Alabama also provides an array of social services such as career planning, crisis intervention, divorce counseling, employment assistance, incest/rape victim care, school performance, and senior citizen assistance.

In 1995 West Alabama reported close to **95,000** medical encounters and approximately 20,000 users; and nearly 16,000 dental service encounters and 8,000 users. West Alabama is staffed by 17.5 full time equivalency (FE) providers. Among these physicians are a cardiologist, a pulmonary specialist, a gastro-enterologist, a surgeon and an obstetrician/gynecologist. These physicians work in their sub-specialty part of the time **and** also see general medicine patients. Counties in West Alabama's service area are classified as medically underserved areas (**MUAs**) and some are designated health professional shortage areas (**HPSAs**). When West Alabama's physician services for the 'area are included, the physician/patient ratio is approximately **1/3,300** and the dentist/patient ratio is **1/9,000**.

The **overwhelming majority** of West Alabama's users are minorities, as is indicated in Exhibit 2:

**EXHIBIT 2**  
**WEST ALABAMA USERS BY RACE/ETHNICITY**

Black (Not Hispanic)	White (Not Hispanic)	Unreported/Unknown
85%	14%	1%

Source: West Alabama Uniform Data System

The majority of the population in West Alabama's service area are indigent; the annual per capita income is just over \$6,000, which is approximately 60 percent of the state average, which is lower than the national average. According to 1990 figures, one in five households has no wage **earner**<sup>27</sup>. Several hundred jobs and funding for local agencies and schools have diminished due to the loss of dog racing in Greene County. Some economic **opportunity** may be found in the new Mercedes-Benz plant that has recently opened in Tuscaloosa, which is 50 miles northeast of West Alabama's main site. Additionally, some economic growth has begun to develop approximately 30 miles south in Livingston. However, it is uncertain what impact these developments will have on population relocation, and infusion of local subsidiary industry. Additionally, many residents in West Alabama's service area do not own their own vehicle, so traveling to jobs in these towns may prove problematic.

Infant mortality rates (IMR) are alarmingly high in West Alabama's service area. The total IMR is 26.4 per 1,000 live births. It is even higher for non-white women, 28.2 (West Alabama Health Services, April 20, 1997, Page 2). This figure has risen since 1996 when the service area rate was 16.3, which exceeded the rate for Alabama (10.5) and the national average (8.5).

Alabama is contemplating how it will implement a comprehensive mandatory Medicaid

<sup>27</sup> *American Hospital Association. "Working from Within: Integrating Rural Health Care." The Hospital Research and Educational Trust and the Section for Small or Rural Hospitals, pg. 9. (no date).*

managed care program. The state is moving **slowly, hoping** to avoid some of the mistakes made by other states that quickly implemented a program. Some observers suggest that Medicaid managed care will be a reality within the next **12- 18** months.

West Alabama expects to be ready when Medicaid managed care is implemented. The health center has agreed to participate in a proposed statewide partnership-owned health maintenance organization (HMO) for Medicaid recipients. The HMO is being formed under the auspices of the Alabama Community Health Care Network (ACHCN). The plan is currently being submitted to the governor's office, the state Medicaid agency and **others**.

The state has received approval for a **substate** section 1115 waiver and has been granted two section 1915(b) waivers to the Social Security Act. **The first** 1915(b) waiver is a primary care case-management program waiver and the second is called the Alabama **Maternity Waiver** Program. Under this program, the state required pregnant Medicaid beneficiaries to seek care from a single provider in each county or cluster of counties. West Alabama was the sole provider under the maternity waiver in Hale, Greene and Sumter Counties. All pregnant women on Medicaid received their prenatal and post-partum care; and their infants received care from birth to their first birthday, from West Alabama and its sub-contracted providers. Reimbursement for services could be paid to West Alabama on a fee-for-service basis, or the health center could charge Medicaid a lump sum when services to patients delivered under the waiver program were concluded.

In October 1996 the state opted to competitively bid the next Maternity Waiver contract. The contract would be granted to the group that received the highest score, providing that the bidders did not score within 10 percent of each other. West Alabama and another bidder received scores that were too close to declare a winner (West Alabama did not receive credit for its prior experience as the sole contractor). **The** state opted to toss a coin to determine who the winner would be, and West Alabama lost the coin toss. West Alabama is currently objecting to the method by which a winner was chosen and is negotiating with the state for an alternative solution. Currently all providers delivering prenatal and postpartum services to Medicaid

beneficiaries in West Alabama's area receive **reimbursement** on a fee-for-service basis.

## WEST ALABAMA'S CHW HOME VISITOR PROGRAMS

West Alabama runs a Community Health Worker (**CHW**) Home Visitor Program. It was **first** established in the early 1980s with funding from the Ford Foundation; when that funding dried up, the health center sought alternative funding to keep this program viable. West Alabama's administrators found multiple funding sources that sustained the program and enabled it to grow. Support for the Home Visitor program comes from the Community Integrated Service Systems (CISS) program run by the federal Maternal and Child Health Bureau, the **AmeriCorps** program and other sources.

The Home Visitor program operates in three rural counties: Greene, Hale, and Sumter. The program seeks to reduce the infant mortality rate and decrease the number of low birth weight babies born in these counties by bringing together health and human services and placing these services in one physical setting. The Home Visitor program includes a community-based home visitation program that utilizes indigenous lay persons that: 1) provide support throughout the perinatal period; 2) ensure that appropriate care is provided to the newborn; 3) teach the mother appropriate parenting skills; 4) ensure communication between the home environment and the health provider; and 5) assist the health care provider by evaluating the home situation of at-risk patients.

The program has four objectives:

- To increase to at least 90 percent the proportion of pregnant women who **receive** the minimum number of prenatal and postnatal visits recommended by the American College of Obstetrics and Gynecology.
- To increase to at least 90 percent the proportion of babies aged 12 months and

younger who receive recommended **primary** care services at the intervals recommended by the American Academy of Pediatrics.

- To reduce the infant mortality rate to no more than 14 per 1,000 live births.
- To reduce the rate of low birth weight infants by 75 percent.

A phenomenon related to infant mortality and low birth weight is teenage pregnancy. Teenage pregnancy is high in the region, although West Alabama has contributed to its decrease. Between 1980 and 1987 teen pregnancy dropped from 25 to 20 per thousand. However, it is still a persistent problem. In **1996, 28** percent of West Alabama's prenatal care users were under the age of 20.

EXHIBIT 3  
1996 WEST ALABAMA PRENATAL CARE USERS

AGE GROUP	NUMBER	PERCENT
<15 years	8	2
15-19	125	26
20-24	172	36
25-44	172	36
>45	0	0
Total	477	100%

Source: West Alabama Uniform Data System

All pregnant women are invited to take part in this program and the integrated services that it offers. Those women who choose to participate receive home visits from trained lay persons who provide outreach, education and social support: **While** most women have chosen to join the program, some women have not. Those opting not to participate include older women who have already had children (and thus consider themselves to be experienced parents), and some young teenagers who do not want their parents to know they are pregnant.

Pregnant women are assigned a Home Visitor during their first prenatal clinical visit with home visits continuing until the child's first birthday. In routine cases, a minimum of three prenatal home visits are conducted; in high-risk cases, more home visits may be warranted. Infants receive a minimum of five visits from the child's birth to age one. In addition to providing health education materials, the Home Visitors inform the mothers about eligibility requirements for health and human services and can arrange for transportation to these services.

A high degree of communication has evolved among the staff members involved in the Home Visitor program. Care Coordinators at West Alabama manage the course of care for each pregnant woman. They also arrange for patient referrals for psycho-social services through local agencies. Care Coordinators receive care instructions from the clinician and relay that information to the Home Visitor. The referrals may request that certain materials be reviewed during the home visit and, in more serious cases, may also request that the Home Visitor check-up on issues at the home (e.g., how the mother is feeding the infant, the condition of the home, etc.). Upon completing the visit, the Home Visitor records her findings and reports them to the clinician and/or the care coordinator. The Home Visitor's remarks are summarized in the patient's medical record.

Although Home Visitors primarily focus on -pregnant women and very young children, they may on occasion be requested to visit other patients with special needs. For example, they may be referred by the physician to visit a house-bound patient and take daily blood pressure readings or conduct glucose screens for a week. This relieves patients of having to return to the health center each day for such a procedure and assists the physician in collecting this vital information. These special requests are fulfilled along with the Home Visitor's daily schedule of visiting five to eight prenatal or infant patients.

The Home Visitors follow a curriculum for both the prenatal and infant patients. The prenatal curriculum consists of a total of seven lessons and the infant curriculum consists of eight lessons. Attachments 1 and 2 detail these curricula.

Successfully interacting with patients requires that the Home Visitor develop a good rapport and trust with those she visits. Confidentiality is an utmost concern, especially in small rural counties. Home Visitors are instructed to never discuss the families or their situation outside of the **health** center; to never refer to the family by their last name except with West Alabama **staff**; and to always secure home visit plans **and** patient notes.

The Home Visitors play the following broad range of roles with the patients:

- Reinforcer: she supports everything good the mother does
- Activity Director: she gives ideas to the mother who wants to do things with her baby but does not know what to do.
- Director: she is seen as an authority by the mother; she can direct specific activity with the child.
- Casual Friend: she shares information about the child's growth, development,, toys and activities with the mother in casual conversation.
- Information Seeker and Giver: she assumes the role of observer, and both asks and answers questions about child growth and development.

Two groups of **CHWs** perform as Home Visitors at West Alabama. The **first** group, Outreach Workers, have been involved with the program since **its** inception in the early 1980s. The second group, the **AmeriCorps** Members of the Community Health Corps funded by a grant to the National Association of Community Health Centers (NACHC), have made home visits for the last two years.

## **Outreach Workers**

West Alabama employs six Outreach Workers and one full-time coordinator who work for the Home Visitor program. They work approximately 40 hours **per** week.. On average, we estimate that it costs approximately \$21,776 per Outreach Worker after accounting for such costs **as salary**, benefits, supervision, administration and overhead. The Outreach Workers are paid primarily through the CISS grant supplemented by other funds.

The Outreach Workers are all females who come from the community served by West Alabama. Six staff members are African-American, one is white. Their ages range from 38 to 72. Four are married, one is divorced, one is single and one is separated. One Outreach Worker is a registered nurse, one has a bachelor's degree, and the rest have high school degrees. Some have been certified nursing assistants (**CNAs**) at one time or another.

Most of the outreach staff have been in their positions for **five** to six years. Turnover in outreach staff is not deliberate; if and when a staff member does leave her position, it is voluntary. One staff member was recently hired. Recruitment for the Outreach Workers is done through West Alabama's personnel department and job vacancies are posted in the health center. Health center employees are given the opportunity to apply for a position internally before an external search is conducted. West Alabama is committed to promoting from within its ranks and to the professional development of its employees. Outreach Workers are required to have a high school diploma or the equivalent. A year of clinical nursing assistant experience is preferred.

Outreach Workers participate in an extensive training, including a preservice training of a minimum of 12 to 15' half-day sessions (60 contact hours) in which they are introduced to the program's goals and objectives; instructed and trained on presenting the educational prenatal and postnatal topics; and informed of sources of additional information and strategies to use in the delivery of information to clients. This training is conducted by West Alabama and collaborating agency staff. After attending these training sessions, new Outreach Workers shadow those with

more experience until they are confident they can handle their own case load. Two Outreach Workers work in each of the three counties covered by the program. Outreach workers spend three days each week making home visits, and two days in the health center catching up on paper work and making reminder calls to scheduled patients.

Outreach Workers had larger case loads when West Alabama was the sole Medicaid contractor for the three counties under the maternity waiver. Since the contract has been temporarily stalled, case loads have diminished. For example, under the waiver program, each Outreach Worker in Hale County had approximately 70 patients; without the waiver their case loads have dropped to an average of 35. In Greene County the average case load has dropped from about 43 to 35; and in Sumter County from about 33 to 20. Case loads have declined because some patients, when given a choice, have opted not to receive services from West Alabama either for reasons of proximity or because they perceive they will receive better services at larger hospitals in Tuscaloosa or Birmingham.

### **AmeriCorps**

West Alabama has hosted an **AmeriCorps** service program for two years. Its objectives are to provide a medical home to pre- and post-natal patients and their infants; to link patients to other health and social services, and to assure the appropriate utilization of health care services.

In 1996, the program's first year, the health center was allotted 15 full-time members. In the present year, the program was allotted a total of 15; several have dropped out, leaving the total at 12. Ten of these 12 members are involved in health-related activities - the remaining two conduct recreational fitness programs with children in Greene County. Of the 10 members that conduct health activities eight participate in the Home Visitor program; the other two spend their time reviewing charts for EPSDT screenings and calling patients to remind them of an appointment, or to set up an appointment for an immunization.

All the AmeriCorps members are required to spend one day of each month participating in a community service activity. Such activities include health fairs, school presentations, free blood pressure and glucose screenings, visiting nursing homes and helping to clean vacant apartments in public housing complexes.

The AmeriCorps program offers the members an excellent opportunity to provide community services, while receiving personal and career development and training. West Alabama benefits from the program by receiving additional support for its Home Visitor program and appointment tracking component. In addition, the AmeriCorps program affords West Alabama a chance to train individuals from the community for better employment opportunities both in and out of the health care field. For example, some AmeriCorps members will be trained to become certified nursing assistants.

AmeriCorps members receive a monthly stipend for living expenses and an educational award in return for their service. Those who have children receive child care services while they are members. On average, we estimate that it costs approximately \$14,697 per AmeriCorps member after accounting for such costs as living allowance, benefits, supervision, administration, and overhead. This cost does not include the education allowance worth \$4,725 per full-time AmeriCorps member (\$2,363 per part-time member) received upon completion of service. Sixty percent of the program costs are paid by the Corporation for National Service through a grant to the National Association of Community Health Centers (NACHC); the remaining costs are covered by West Alabama. Funding from the Corporation for National Service covers the members' stipends, fringe benefits, educational conferences, supervision, operational costs such as supplies and indirect costs. Since the funding is based on yearly Congressional appropriations, it is not guaranteed.

AmeriCorps members typically serve one year in an assignment; however they may re-apply to serve a second year. Several of the members that served in the first year have returned for a second year. Most of those members interviewed said they expect to move on from the program after their service is complete and either go directly into the work force or attend school.

Some have considered applying for a second year.

The program attempts to recruit AmeriCorps members year-round. Active AmeriCorps members distribute recruitment materials at **all** public events; in **local** high schools and in the quarterly newsletter. Additionally, before applications are due in August, flyers are posted around town advertising the positions, ads are run on the radio and on the local television affiliate. Applicants are interviewed and rated on how they filled out their applications, their appearance, their communication skills, their program knowledge and self-knowledge and desire to achieve goals. Additionally, applicants are given an essay exam which tests their ability to problem solve and exhibits their reading and writing skills. Program coordinators also look for individuals who can make a commitment for at least 35 hours each week and have some form of reliable transportation.

Participants who are assigned to health-related positions are members of the West Alabama community. Most have lived in the community for many years. **All** are **African-American** except one, who is white. The youngest member is 17, the oldest is 42. All have a high school diploma, five have had some college experience. Two are married and nine have children.

Training for AmeriCorps members is comprehensive and covers diverse topics such as telephone follow-up; how to document patient information on forms and the computer; and glucose and blood pressure screening. Those members involved in the Home Visitor program receive a four-part training in conducting home visits and completing the appropriate documentation.

AmeriCorps members conduct routine home visits to patients with low-risk pregnancies or to homes with infants that do not have any special conditions such as substance abuse or domestic violence. Members attempt to make at least **three** prenatal home visits; and two more home visits after delivery to verify that the mother has had her two- and six-week checkups. Members follow up on infants monthly to ensure that they receive their full course of

immunizations. West **Alabama** is attempting to **have** **AmeriCorps** members follow children at least up to age two. Ideally, they would like to follow children through the entire course of immunizations as prescribed by the Centers for Disease Control (CDC).

## Challenges

Some challenges have arisen between the Outreach Workers and the AmeriCorps members that stem from having two programs that are very similar but have different rules. For example, some AmeriCorps members complained that Outreach Workers inappropriately acted like their supervisors. Additionally, some Outreach Workers did not understand why they could not attend training meetings in interesting locales such as San Diego as did the AmeriCorps members.

In response, health center staff **improved communication** with the **Outreach Workers** to help them better understand what the AmeriCorps program is about and the members' roles. Outreach Workers now sit in on interviews with prospective AmeriCorps members. It has been productive to let the Outreach Workers have a say in the process and who is selected. This is especially important since Outreach Workers and AmeriCorps members must interact well so that they can share vital patient information without incident.

During interviews with patients, home visitors, care coordinators, physicians and administrators, the roles of the Outreach Workers and AmeriCorps members were distinctly drawn. It was understood that while Outreach Workers worked with both the low- and high-risk cases, they were able to focus their energies on those cases needing extra attention because the AmeriCorps members were able to cover the gaps for the routine cases.

## HOME VISITOR PROGRAM IMPACTS

Descriptive data on the Home Visitor program are easily obtainable. Information on the Home Visitors, the number of patients they have seen, and the number of visits they have made is

readily available.

Gathering data that will shed light on the outcomes of the program is more of a challenge.

difficult

### **Patient Access to Services**

From January to March 15, 1996, AmeriCorps members followed 104 maternity patients, 45 infants and 15 post-natal patients in Greene, Sumter and Hale Counties.

### **Appropriate Use of**

first trimester. Sixty-three percent (269) of pregnant women using prenatal care did so in their first trimester. Thirty percent (128) sought prenatal care in their second trimester and only seven percent (32) began receiving prenatal care in their third trimester.

- Of those patients utilizing prenatal care at West Alabama in 1996, 89 percent (365) gave birth to infants weighing greater than 2,500 grams (normal birthweight). Nine percent (39) had low birth weight babies weighing between 1,501 and 2,500 grams; and two percent (seven) gave birth to babies that fell into the very low birth weight range, under 1,500 grams.
- Women who had a home visitor made more visits to their doctor than non-visited women. Evaluation of the utilization of pediatric care showed that 74 percent of home visited patients had children who completed the **12-month** schedule of immunizations, compared with 63 percent of non-home visited West Alabama patients.
- From January - March, 1997, AmeriCorps members made more than 1,600 phone calls reminding clients of their appointments at the health center. **Approximately** 1,230 appointments were kept: Members also reviewed 675 patient charts to ensure that children had received the appropriate immunizations.

### **Patient Knowledge/Behavior**

- Interviews with patients who received home visits revealed that Home Visitors taught many patients how to appropriately take care of their infants. Specifically, Home Visitors taught women how to correctly hold and feed their infants.
- From January - March, 1997, **AmeriCorps** members made approximately 299 home visits to moms and kids.. During these visits, Members counseled and assisted clients by educating them on proper health practices.
- In 1996, 477 Prenatal Care users; 390 infants and 391 postpartum care users were enrolled in the Women, Infants and Children (**WIC**) Program and received nutritional supplements are available at several of West Alabama's sites, which

has eased patients' access to this service? --

## LESSONS LEARNED

- **Creative financing can keep a successful program alive.** West Alabama sought ways to continue the Home Visitor program after funding from the Ford Foundation ended. Use of the **CISS** grant and the **AmeriCorps** program has allowed this successful program to survive and grow.
- **A fully integrated system allows for access to truly comprehensive services.** West Alabama's Home Visitor program is completely integrated with the health center's systems. The Care Coordinators and Home Visitors are seen as essential components of the health center's clinical operations. Daily interaction among physicians, care coordinators and Home Visitors ensures that patients' needs are followed up and health and social services are available.
- **Clear communication between participants makes for a successful program.** Initially, it may seem that there is redundancy of information between the physicians, Care Coordinators, and Home Visitors; however in the long run, West Alabama has found it beneficial to keep everyone informed on patients' information, so there are no cracks in the system.
- **Home visitors notes should be included in the patient record.** Currently, Home Visitors' remarks are summarized in the patient record. West Alabama has recognized the value of having a copy of the Visitors full report in the chart, which often gives clinicians further insight into the patient's circumstances. West Alabama will begin including the full reports in the future.

- **Clearly defining program objectives and the roles of participants reduces confusion when similar programs exist at the same health center.** Implementing housing multiple projects that may have similar goals and objectives can be confusing to staff members and patients.
  
- **CHWs to extend existing successful projects can be beneficial.**  
filneriCorps members are able to

**Outcomes measurement should be a priority. In**

**ATTACHMENT 1**  
**PRENATAL CURRICULUM**

- Visit 1: Allows the Home Visitor and the mother to begin to develop a relationship of trust, acceptance and caring.
- Visit 2: Focuses on the need for good nutrition and the adverse influence of drugs, alcohol, nicotine and caffeine.
- Visit 3: Focuses on the mother's emotional, sexual and psychological changes during pregnancy and postpartum.
- Visit 4: Focuses on prenatal development and stresses the importance of exercise when appropriate.
- Visit 5: Educates the mother on the signs of pre-term labor, and the stages of labor.
- Visit 6: Focuses on hospital procedures when the mother goes for delivery
- Visit 7: Focuses on the characteristics of the newborn, plans for the baby's arrival and plans for feeding the baby.

## **ATTACHMENT 2**

### **INFANT CURRICULUM**

- Visit 1: Focuses on the mother's feelings about her newborn's needs and the baby's homecoming.
- Visit 2: Home Visitor demonstrates and observes the mother bathing, changing, and feeding the newborn.
- Visit 3: Focuses on the mother's role as a primary teacher, role model and controller of the infant's environment.
- Visit 4: Focuses on the mother's expectations of the infant, child safety issues and the importance of health check-ups.
- Visit 5: The Home Visitor and mother discuss and demonstrate care-taking of the baby and verbal interactions for the infant.
- Visit 6: Focuses on the mother's need to play games with her baby with some discussion on child development and the mother's own development.
- Visit 7: Home Visitor discusses with the mother the expectations of the infant's capacities, normal development, exploring with the infant.
- Visit 8: Home Visitor discusses the normal development of babies with the mother who will begin to label her baby's actions.

**WEST ALABAMA HEALTH SERVICES, INC.  
KEY INFORMANTS INTERVIEWED**

Executive Director  
Clinical Director  
Director of Finance  
Director of Information System  
Director of Patient Operations  
Director of Community Health Worker Program  
Manager of Community Health Workers  
Nurses that interact with Community Health Workers  
Physicians that interact with Community Health Workers  
Community Health Workers  
Patients that interact with Community Health Workers  
Social Worker  
Director of Medical Records  
Consumer Member of the Board of Directors  
Representative from Department of Human Resources  
Representative from **Today=s** Moms  
Representative from Even Start  
Representative from Medicaid  
Representative from **WIC**

WEST ALABAMA **HEALTH SERVICES**, INC.  
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**APPENDIX I**  
**INTERVIEW GUIDE**



**IMPACT OF COMMUNITY HEALTH WORKERS ON ACCESS, USE OF SERVICES  
AND PATIENT KNOWLEDGE/BEHAVIOR**

**INTERVIEW QUESTIONS**

**ALL SITES<sup>28</sup>**

Interviewee:

Interviewer:

Position:

Date:

Organization:

Address:

Telephone:

FAX:

**WHO ARE CHWs?**

What are the demographic characteristics of **CHWs**?

Do they reflect the demographic composition of the community?

Why or why not?

*Are the demographics of the AmeriCorps members different from **any** other **CHWs**? (all AmeriCorps)*

What is the length of service for **CHWs**?

Is **turnover** deliberate or are **CHWs** hired for as long as they do well and resources are available to support them?

*Is there a difference between AmeriCorps and other **CHWs**? (all AmeriCorps)*

What kind of turnover has the site experienced?

*Is there a difference between **AmeriCorps** and other **CHWs**? (all AmeriCorps)*

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<sup>28</sup> *Italicized questions are asked at only those sites indicated; non-italicized questions were asked of all study sites.*

What has the site done to retain CHWs?

***What are the challenges arising from turnover? (Northwest Michigan)***

***What kind of program issues arise with such a short season? (Northwest Michigan)***

***Do you rely on Camp Health Aides returning to do job from year-to-year? (Northwest Michigan)***

***Have any of the Camp Health Aides settled permanently in the area? (Northwest Michigan)***

***Do they work in any of the CHCs sites during the off-season? (Northwest Michigan)***

## **WHAT IS THE SPONSORING SITE?**

What services do they offer?

Primary care?

Other health care?

Social services?

To what populations?

Geographically?

Demographically?

Changes over time?

How large are they?

How many users?

How many encounters/visits?

How is the site organized?

Type of organization?

Organizational structure?

How is the site financed?

Historical and projected funding sources?

***What is the return rate of migrantfarm workers from season to season? (Northwest Michigan)***

***Is it possible to track the health status of those patients that return each year? (Northwest Michigan)***

***When they return, is there an attempt to “catch-up” on their health status during the off-season? (Northwest Michigan)***

IN WHAT ENVIRONMENT DOES THE SPONSORING SITE OPERATE?

Is it rural, urban, border?

What is the Medicaid arrangement(s) in the state, including managed care? Is this changing? What impact has it had/will it have on the center?

Is there a state or local program for the uninsured?

What are the center’s formal and informal networks? Are they changing? Why? (e.g., from pressures of managed care).

Who are the center’s competitors? Are they changing?

Are there other critical factors that could have a major impact on the center? (e.g., large numbers of undocumented immigrants).

**HOW ARE THE CHWS MANAGED?**  
***(distinguish between AmeriCorps and any other CHW programs)***

How are **CHWs** recruited?

What selection criteria are used?

What are the priorities among these criteria if compromises have to be made?

What media and other channels are used?

What kind of training do **CHWs** receive?

Who conducts the training?

What methods are used  
(e.g., workshops, role-playing, assignments, shadowing an experienced **CHW**)?

Do some of these methods work better than others?

How long does it take for **CHWs** to be good at their jobs? Does that vary by job?

Who manages them?

Where do their managers fit in the organization?

What kind of supervision do **CHWs** receive?

Are they supervised by the person in charge of the program, the service site or department manager, or both? If both, which is responsible for what?

Were the managers initially involved in program planning?

If not, **should** they have been?

How have they been brought into the program?

Do these managers have rewarding, disciplining, hiring, and **firing** authority for the **CHWs**?

***How do Camp Health Aide Coordinators spend their time during the of-season? (Northwest Michigan)***

Are there written position descriptions for **CHWs**?

If so, what are they?

How are these position descriptions used?

Have they changed over time? Why?

How are they like other staff members' position descriptions? Different?

How many hours a week do **CHWs** work?

Do they work the usual business week 'or do they cover evenings and/or weekends?

For what activities?

## **WHAT ARE THE OBJECTIVES FOR THE CHW PROGRAM?**

(Interviewer note: You may want to phrase this as: What problem were you trying to solve by having the **CHWs** work on it?)

What are the patient-access objectives? (OR, what effects do the **CHWs** have on linking people to a primary care provider? AND What effects do they have on continuity of care? Do they link people to other needed health and social services?)

What are the utilization objectives? What effects do they have on increasing utilization of appropriate services and/or decreasing utilization of inappropriate services?

What are the patient knowledge/behavior objectives?

Do they improve patients' knowledge of how to use the health care system?

Do they improve patient's knowledge of healthy lifestyles?

Who formulated them?

Have they changed?

What was the genesis, implementation, and **evolution** of the organizations's CHW programs? (e.g., Whose idea was it? Who are the backers are where do they sit in the organization? Is the organization putting any of its own resources into the project? Has the project changed over time? How? Why?)

What are the roles of the **CHWs**?

What interventions or activities do **CHWs** conduct? (Interviewers' note: Be sure to capture interviewee's definition of terms like "outreach", "empowerment," "case-management" by having them give very specific activities that fall under such terms.)

How are they related to the problem that the program is trying to solve? (i.e., Relationship of objectives to activities?)

Are different types of **CHWs** better at certain activities, or are the differences the result of individuals' efforts?

What is the "fit" between the objectives and the roles?

*Describe how a typical Home Visit case works from the time a client is identified to when the case is closed. (West Alabama)*

*Describe how Camp Health Aides work on a typical case from the time a client is identified to when the case is closed, or the season ends. (Northwest Michigan)*

Are the services of **CHWs** integrated into the system of primary care provided by the health center? OR What effects do they have on improving the primary care experience?

Do the **CHWs** operate within the center?

Do they assist directly in center **operations** (e.g., by translating during an office visit)?

How are referrals made for their services?

*What happens when **non-CHW program** issue come up during an encounter? (Logan Heights)*

How are their “findings” (e.g., referral for housing completed; found grandmother with apparent need for medical services) communicated to the right people in the center?

What kind of recordkeeping systems for the activities of **CHWs** does the site have in place? **What** kinds of data does the site collect about the activities and achievements of **CHWs**? (e.g., To do the latter, they would need to contain a patient identifier that can be used to access other patient records.)

What are the impacts on **CHWs** themselves?

What are the impacts on working skills and habits?

What are the impacts on future career plans?

**WHAT RESOURCES ARE REQUIRED FOR THE CHW PROGRAM?**  
*(distinguish between **AmeriCorps** and any other **CHW programs**)*

*Who funds the CHW program?*

What do these funds include?

How stable are they?

Does the site provide matching or in-kind funds?

How much?

What type? (e.g., supervisory time)

How much time does the CHW spend in different roles? Total? How is this documented? (Interviewer note: If we can't find adequate documentation, then we'll have to use the time-study. Discuss with Ann how to broach the subject and with whom.)

What is the estimated cost for a CHW including compensation, benefits, training, and administrative oversight?

Estimated cost by function? (Interviewer note: Concentrate on getting the total cost and time information and don't worry if they can't break down costs by function. If they have/can, it's terrific; if not, we'll do our own calculations later.)

Is there someone else who can give us additional information/perspective on the program?

Name \_\_\_\_\_  
Position \_\_\_\_\_  
Phone \_\_\_\_\_



**APPENDIX J**  
**TIME STUDY FORM**



## TIME STUDY FORM

Date  
Name  
Center

Date of Week  
Department

Time	Outreach	Translating	Referring	Transporting	Administrative	Other (please describe)
7:00 am						
<b>7:30</b> am						
<b>8:00</b> am						
<b>8:30</b> am						
<b>9:00</b> am						
<b>9:30</b> am						
10:00 am						
<b>10:30</b> am						
<b>11:00</b> am						
<b>11:30</b> am						
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