



Published in final edited form as:

J Ambul Care Manage. 2011 ; 34(4): 362–372. doi:10.1097/JAC.0b013e31822cbd0b.

Salud Para Su Corazon (Health for Your Heart) Community Health Worker Model:

Community and Clinical Approaches for Addressing Cardiovascular Disease Risk Reduction in Hispanics/Latinos

H. Balcazar, PhD, M. Alvarado, MSN, RN, and G. Ortiz, M.A.

School of Public Health, University of Texas Health Science Center Houston (Dr Balcazar), El Paso, Texas; Division for the Application of Research Discoveries, National Heart, Lung, and Blood (Mss Alvarado and Ortiz), Bethesda, Maryland.

Abstract

This article describes 6 Salud Para Su Corazon (SPSC) family of programs that have addressed cardiovascular disease risk reduction in Hispanic communities facilitated by community health workers (CHWs) or Promotores de Salud (PS). A synopsis of the programs illustrates the designs and methodological approaches that combine community-based participatory research for 2 types of settings: community and clinical. Examples are provided as to how CHWs can serve as agents of change in these settings. A description is presented of a sustainability framework for the SPSC family of programs. Finally, implications are summarized for utilizing the SPSC CHW/PS model to inform ambulatory care management and policy.

Keywords

clinical approaches; community health workers; CVD; health promotion interventions; Hispanic communities

The purpose of this article is to illustrate 6 Community Health Worker/Promotora de Salud (CHW/PS) Salud Para Su Corazon (SPSC) programs and how they have affected change in community settings versus clinical settings, when addressing cardiovascular disease (CVD) risk factors in Hispanics. In addition, different challenges and opportunities are presented to highlight how different approaches (medical, community, and systems) can integrate the CHW model in different communities. We also describe elements of sustainability that can be integrated to establish the impact of these programs. Finally, we conclude with the implications of utilizing the SPSC CHW/PS model to inform ambulatory care management and policy.

SPSC HISTORY

In 1994 the National Heart, Lung, and Blood Institute (NHLBI) of the National Institutes of Health launched the SPSC Latino/Hispanic Community Cardiovascular Disease Prevention and Outreach Initiative (the term Hispanic/Latino will be used interchangeably in this article) to provide a federal response for addressing CVD as the number one cause of death

Correspondence: Hector Balcazar, PhD, School of Public Health, University of Texas Health Science Center Houston, El Paso Regional Campus, 500 W. University CH 400. El Paso, Texas 79968 (Hector.G.Balcazar@uth.tmc.edu).

The authors have disclosed that they have no significant relationships with, or financial interest in, any commercial companies pertaining to this article.

in Hispanics (Alcalay et al., 1999). The SPSC developed a *formative research strategy* as an initial step and via focus groups, to assess knowledge and attitudes about heart disease and associated risk factors, media usage and preferences, and publications usage and preferences among Spanish speaking Latino immigrants residing in the Washington, D.C., metropolitan area (Moreno et al., 1997). From this *formative research*, messages and educational strategies were developed to support a heart disease prevention pilot initiative (including an education campaign) in the Washington DC metropolitan area (Moreno et al., 1997). A key element of this prevention initiative was the utilization of a multimedia bilingual communication strategy that included television telenovela format public service announcements, radio programs, brochures, recipe booklets, charlas, motivational videos and a CHW/PS training manual “Su Corazon Su Vida” (Your Heart Your Life) (Alcalay et al., 1999). Evaluation of the results of the pilot initiative showed increase awareness of risk factors in the target community sample (Alcalay et al., 2000). From this initial development of SPSC, a key question to answer is: What have been the research strategies for utilizing the CHW/PS component of the SPSC program within the context of a community setting versus a clinical setting, to address CVD and risk factors in Hispanic populations? Six SPSC CHW/PS-related programs within this article will highlight these strategies.

The CHW MODEL AS A CHANGE AGENT: COMMUNITY VERSUS CLINICAL CONTEXT

From the development of the initial SPSC campaign and pilot initiative, the philosophy and public health strategy of the SPSC has been to anchor the development the CHW/PS model to build a variety of perspectives that support working at various levels, the individual and the family within a community context, and the individual and the family within a clinical context. The support of the SPSC CHW/PS programs in these 2 different settings (community and clinic) has resulted in changes affecting different levels: (1) community-partnerships and capacity building, (2) clinic-partnerships and capacity building; 3) CHW/PS capacity building; (4) changes in health-related outcomes for cardiovascular health promotion and reduction of CVD risk factors (Alcalay et al., 1999). An evaluation of how these different levels have been affected is also described below.

DEVELOPING SPSC CONCEPTUAL FRAMEWORKS

Three conceptual frameworks for CHWs have been developed highlighting the CHW/PS model to build a variety of perspectives that support working at both levels: the community and the clinic (Alcalay et al., 1999; Anders et al., 2006, Balcazar et al., 2006; De Heer et al., 2011). These conceptual frameworks build on: (1) the need to develop an infrastructure for positioning CHWs/PS as agents of change and interventionists in the development and implementation of culturally and contextually rich health promotion and disease prevention community-outreach programs to address CVD and risk factors, and (2) the need for an ecological and community-based participatory research (CBPR) perspective when implementing the SPSC approach. What has been the learning from the implementation of the SPSC programs in terms of affecting change at the 2 main levels: the community and the clinic? Briefly we introduce 4 community projects and 2 clinic-based projects that have utilized the CHW/PS approach. We identify key elements of the design and the processes used including the modes of intervention delivery.

THE COMMUNITY APPROACHES

The National Council of La Raza-NHLBI-MetLife Foundation Partnership was the first CHW/PS model that included CHWs from community-based organizations from different regions of the country (Balcazar et al., 2005a, 2006). On the basis of a pre-post 6-month

intervention design CHWs delivered the modules of Su Corazon Su Vida curriculum in a class-type group format followed by telephone, home visits, or both. A total of 33 trained Promotores de Salud reached 223 Latino families in 7 locations across the United States. The evaluation results showed that the initiative resulted in accomplishments at 3 levels: Latino families (improving heart-healthy behaviors, referrals and screenings and enhancing information sharing beyond families), CHWs/PS, and participant community-based-organizations (CBOs). This initiative showed that CHWs/PS supported by their CBOs can be agents of change in communities.

The SPSC-North Texas Initiative (SPSC-NT) was an Enhanced Dissemination Education Center program supported by NHLBI (Balcazar et al., 2005b, Hollen et al., 2002; Medina et al., 2007). This 6-month 2-group pre-post test design SPSC project (included a classroom group versus a group that received educational materials distributed by mailed or delivered at homes) built the CHW/PS model where no one existed in the North Texas Fort-Worth area community (Balcazar et al., 2005b; Hollen et al., 2002; Medina et al., 2007). Following the conceptual frameworks developed by SPSC (Alcalay et al., 1999; Balcazar et al., 2006) an alliance of partners was developed to provide the infrastructure support to enhance the application of the CHW/PS model. The Su Corazon Su Vida educational modules served as the main intervention strategy similar to the SPSC-National Council of La Raza approach. A total of 19 trained CHWs/PS facilitated the intervention and reached 213 participants. Significant post versus pre intervention heart-healthy self-reported behaviors were observed regardless of group assignment. This SPSC-NT community outreach strategy provided preliminary evidence that the CHW/PS model can be adapted to a variety of settings. Few lessons learned included: (1) CHWs/PS can become agents of change for a variety of SPSC programs in Latino communities; (2) CHWs/PS can deliver different programs and being flexible to adapt to the environment and still maintain the vision developed for the given intervention and program design (Medina et al., 2007). The SPSC-NT project produced a CD-ROM to showcase the initiative (available upon request) (Balcazar & Hollen, 2004).

The HEART (Health Education Awareness Research Team) CHW Project Phase 2 is a continuation of phase 1 of the HEART program (described in the clinical examples) currently being implemented (Balcazar et al., 2009a). The CBPR approach is the major strategy supporting this ecological approach. The community advisory council from HEART phase 1 evolved to a more integrated community health academy leadership council to provide a more dynamic interaction of new partners (including a variety of trainings and leadership opportunities) joining the HEART program. Three CHWs/PS were hired full-time by the YWCA to deliver a more ecological approach to cardiovascular health promotion and disease prevention moving the model to the community setting. Parks and Recreation is also a major partner in this initiative. Under a family of programs called “Mi Corazon Mi Comunidad” (My Heart My Community) 2 types of programs are being implemented: lifestyle education programs and environmental enhancement programs under two foci: activities focusing on nutrition and activities focusing on physical fitness. A cohort type pre-post design for a 4-month intervention period is currently being implemented (HEART, 2011).

The SPSC-Centers for Disease Control and Prevention “Promotores de Salud Contra La Hipertension” Initiative is a Centers for Disease Control and Prevention randomized community trial to showcase the feasibility of the CHW model in addressing hypertension control among Hispanics in El Paso, Texas with hypertension. A total of 98 participants in a community-based organization setting serving Hispanics enrolled in the program as controls or as part of the treatment group for a 9-week pilot CHW/PS program using lessons from the Su Corazon Su Vida curriculum and a new photonovela created specifically for the intervention. Perceived benefits and 2 heart-healthy behaviors (salt and sodium, and

cholesterol and fat) were shown to be statistically significant between groups. Four CHWs/PS out of the 20 newly trained CHWs/PS participated in the implementation of the program. Statistically significant changes in blood pressure measurements were not achieved. Lessons learned from this program include the potential that newly developed materials like the photonovela (Balcazar et al., 2009b; Balcazar & Byrd, 2008) can be a good resource tool to facilitate the dialogue between CHWs/PS, participants and their families. These opportunities of dialogue can be gradually incorporated for improving/maintaining blood pressure control (Balcazar et al., 2009b).

THE CLINICAL APPROACHES

The NHLBI-Health Resources and Services Administration (HRSA) CHWs Initiative was launched in the US-Mexico border region (Balcazar et al, 2009c) to test a clinical-based approach utilizing HRSA's federally-qualified community health centers to address CVD among 4 high-risk Hispanic communities yielding clinical outcome data for the first time in the history of SPSC programs. A pre-post design with baseline and 3 follow-up points in time after delivery of Su Corazon Su Vida CHW intervention guided the physician-oriented clinical directives CHW/PS strategy of the program. A total of 174 CHWs/PS were trained as a result of this initiative and 256 participants were served by the program. Positive changes were observed in low-density lipoprotein cholesterol level, triglyceride level, waist circumference, diastolic blood pressure, weight, and glycated hemoglobin (HbA1c). This landmark study showcased several promising CHW/PS-driven clinical-type models of integrated care in HRSA's federally-qualified community health centers. One of the community health centers became a CHW's/PS Training Center (The Gateway Laredo Clinic) site for NHLBI.

The HEART (Health Education Awareness Research Team) CHW Project Phase 1 is one of the recent SPSC projects that utilized a randomized community trial to evaluate behavioral and clinical outcomes for risk reduction of CVD in high-risk Hispanics living in El Paso, Texas (Balcazar et al., 2009a, 2010; De Heer et al., 2011). This NIH-NCMHHD (National Institutes of Health-National Center on Minority Health and Health Disparities) was a 4-month intervention delivered at a clinic site. A total of 20 CHW/PS were trained and 3 were hired for the project implementation using Su Corazon Su Vida curriculum (2 months of educational sessions with a 2-month follow-up component for the intervention group) on 328 participants. The control group received basic educational materials from the curriculum in person at the time of assessment at baseline. As with other SPSC programs, an alliance of partners was also created under the umbrella of a community advisory health council that included representatives from a federally qualified community health clinic, the El Paso community college where CHWs/PS are trained to receive the Texas CHW/PS state credential, and university partners (Balcazar et al., 2009a, 2010). A CBPR guided the planning, implementation and evaluation of the project (Balcazar et al, 2009a). Participants in the experimental group showed more awareness of CVD risk factors, more confidence in the control of these factors, and improved dietary habits (i.e. lower salt and cholesterol intake, better weight control practices) compared with the control group. Total cholesterol was 3% lower in the experimental than in the control participants, and non-high-density lipoprotein cholesterol and low density lipoprotein cholesterol were both 5% lower (Balcazar et al., 2010). This project supports the notion that CHWs/PS can also be agents of change in controlled research environments (developed at a clinic) that infused a CBPR approach.

COMMUNITY AND CLINIC MODELS OF CARE WITH CHW/PS: LESSONS LEARNED FROM SPSC

In this section we describe the lessons learned from the SPSC projects that have applied both community and clinic models facilitated by CHWs/PS. Four domains will be examined to evaluate the effects of the SPSC programs for different outcomes including process and health-related changes among intervention participants.

Community-partnerships and capacity building

All of the SPSC CHWs/PS community projects using different intervention designs (including randomized community trials) were able to establish a variety of community partners using a community-based participatory agenda. Development of network of partners took many forms including establishing relationships where none existed, for example in the SPSC-NT project (Balcazar et al, 2005a, Medina et al, 2007). The partnerships contributed to a variety of activities in the community which can be classified into 3 areas: (1) recruit participants and CHWs/PS and provide intervention sites; (2) provide community-wide screenings, referrals to health care systems, and dissemination of educational materials; (3) organize and implement community events (i.e. health fairs, presentations at schools, churches). Challenges for building community partners relations include: (1) a very time and labor intensive process, (2) partnerships are difficult to evaluate and there is lack of data to establish what triggers good partnerships and what outcomes to measure in the context of CHWs/PS programs; 3) partnerships are difficult to sustain beyond the ending of program funds.

Clinic-partnerships and capacity building

The 2 SPSC CHW/PS projects that have developed clinic partnerships to deliver health promotion disease prevention interventions have used different strategies to build these partnerships. The SPSC-HRSA embraced the approach of partnering with the clinic medical staff to integrate a set of clinical directives to integrate the CHW/PS model. HRSA and NHLBI staff partnered with a university to provide mentorship to the CHWs/PS and to establish evaluation parameters. A key element for the success of the implementation of the SPSC-HRSA projects was the buy-in from the medical directors and administrators of the community-health centers. An integrated medical providers' referral system allowed CHWs/PS to work with promotores after the medical directives were set by the physician (Balcazar et al., 2009c). Complementing this clinical referral and CHW/PS strategy was the implementation of the SPSC program which included group classes with the Su Corazon, Su Vida NHLBI curriculum. The HEART project (Balcazar et al., 2010) utilized a community-driven recruitment initiative of reducing CVD risk factors by inviting participants into a community-based clinic where CHWs/PS delivered a 4-month intervention. In this project clinical directives were not integrated into the program, however the HEART project clinic was one of the participants in the SPSC-HRSA supported programs (Balcazar et al., 2009c). Potential challenges for building a clinical-SPSC partnership model are similar to those for building community partnerships. However, for a clinic to embrace the SPSC CHW/PS model the clinic medical and administrative leadership staff need to be supportive of the program. A major limitation for building these types of SPSC-clinical programs have been the lack of clinical research infrastructure to collect and monitor patient outcomes affected by the CHW/PS program implementation. In addition, research has been difficult to implement that includes randomized program interventions designed for a variety of experimental and control groups. Establishing the value added of the CHW/PS model in clinical settings has also been difficult to assess for the SPSC programs.

CHW/PS capacity building

The SPSC family of programs has been very successful in providing science-based and culturally rich training in CVD risk factors for CHW/PS in many parts of the country and in many Latin American countries. Many CHWs/PS from the SPSC Texas programs have been credentialed by the state certification program. Volunteer and paid CHWs/PS have participated in the SPSC programs. The SPSC programs have shown that CHWs/PS can be members of community teams and clinical teams in many different system settings, including new settings like the Young Women's Christian Association (Balcazar et al, 2009a). We have shown how CHW/PS can be part of a multidisciplinary team in community health centers that provide primary health care and intervention services. The major challenge facing CHWs/PS is that the workforce has not developed sufficient paying jobs to meet the demand of CHWs/PS who are being trained as part of the SPSC programs. This is a country- wide limitation. The profession of CHWs/PS needs a legitimate presence as part of a vibrant multidisciplinary team workforce in the medical care system.

Changes in CVD health-related outcomes

The SPSC programs have applied different research designs to show that changes in CVD risk factors can occur at various levels: improved self-reported attitudes and perceptions towards CVD risk reduction, improved self reported dietary behaviors, and improved clinical outcomes such as total cholesterol, non-high density lipoprotein cholesterol and low density lipoprotein cholesterol among others. The size of the effects for these clinical measures can be considered a positive step towards risk reduction of CVD given that many of the SPSC programs had a period between 2–4 months of actual intervention delivery. The results of the randomized HEART intervention suggests that community health education as a health promotion approach in communities or as a clinical management approach for reducing risk factors for CVD is a promising strategy. Longer duration of SPSC programs are required to examine if CVD risk reduction continue to be positive and long-lasting utilizing a variety of research designs including randomized protocols with reference groups.

CONNECTING WITH SYSTEMS THROUGH SPSC PROGRAMS

The Table provides an illustrative example of how several of the SPSC projects here described can serve as a connector of “service delivery” from a broader perspective of linking 3 approaches where CHWs/PS can be agents of change. These approaches include: medical, community, and systems. This table can serve to guide clinical and community agencies as they begin to establish the kind of CVD risk reduction program that may be developed given their local infrastructure and programmatic goals, and where they are at in their approach to prevention of CVD and facilitation of CHWs/PS as agents of change.

AN EVALUATIVE APPROACH TOWARD EXAMINING CHWS SUSTAINABILITY OF SPSC PROGRAMS

A CHWs/PS SPSC sustainability conceptual framework has recently been developed to showcase the experiences of implementing the SPSC CHW/PS model in different communities. The sustainability framework allows the opportunity for the community-based organizations to highlight the changes in terms of defined inputs and outputs that resulted after the implementation of the projects (Figure). The sustainability guidelines created for the framework are also described along with Figure (Appendix). This sustainability project is in its initial stages of documentation. However, results of the sustainability efforts in these communities have occurred at different levels. These include: partners, CHWs/PS, and community participants from the implementation of the SPSC CHW/PS family of programs (which include a variety of projects included in this article plus others). A sustainability

survey was also utilized on the basis of the work by Mancini and Marek (2004) to further evaluate 7 areas from which to base the lasting effects (beyond the guidelines of the framework) of the SPSC CHW/PS at various levels of action (ie leadership competence, strong and effective collaboration, understanding the community, program flexibility, staff quality and improvement, stable and sufficient funding and demonstrated program success). Preliminary observations have illustrated that the SPSC CHW/PS family of programs has had different levels of impact in the Hispanic/Latino communities served based on several domains of sustainability evaluated. This is the first effort of the SPSC CHW/PS projects to assess sustainability after projects have concluded.

INFORMING AMBULATORY CARE MANAGEMENT AND POLICY

The SPSC CHW/PS model has provided a foundation from which to build initiatives of CVD risk reduction and disease prevention projects that should utilize CHWs/PS as the main agents of change in ambulatory clinic settings. The management of the CVD risk reduction program should be integrated as part of clinical directives of medical referrals to the CHW/PS who are part of a multidisciplinary team in the clinic setting. Treatment plans for people with risk factors for CVD including: high blood pressure, diabetes, obesity, should be developed by the medical staff and linked to the CHW/PS model. A supervisory system of CHWs/PS could be instituted to monitor the group classes utilizing Su Corazon, Su Vida curriculum delivered by trained CHW/PS. A data management system should be established to track a series of clinical indicators. In addition, community outreach strategies within a clinic setting are needed as part of the ambulatory care to reach the community including the families of the patients/participants enrolled in the SPSC program. Community activities may take the form of health fairs, reaching the school system, churches, etc.

These new models will necessitate a more comprehensive approach to CVD prevention and control that builds on an ecological model whereby the individual, the CHW/PS, stakeholders affected by the CHW/PS model, and a policy component are integral parts of this comprehensive initiative.

Acknowledgments

The authors would like to thank the *National Heart, Lung, and Blood Institute Salud Para Su Corazon* team for close to 20 years of collaboration with many of the projects described in this article including the sustainability component. *They also thank the lead Promotoras de Salud Esperanza Vazquez and Odelinda Hughes* for their dedication to the *Salud Para Su Corazon* promotoria philosophy and the promotoras de salud involved in many of the *Salud Para Su Corazon* projects. Many partners and community participants are also recognized for their participation and commitment to heart health in the Hispanic/Latino community.

REFERENCES

- Alcalay R, Alvarado M, Balcazar H, Newman E, Huerta E. *Salud Para Su Corazon: a community-based Latino cardiovascular disease prevention and outreach model. Journal of Community Health.* 1999; 24:359–379. [PubMed: 10555925]
- Alcalay R, Alvarado M, Balcazar H, Newman E, Ortiz G. Evaluation of a community-based Latino heart disease prevention program in metropolitan Washington DC. *International Quarterly of Community Health Education.* 2000; 19:191–204.
- Anders R, Balcazar H, Paez L. Hispanic community-based participatory research using a promotores de salud model. *Hispanic Health Care International.* 2006; 4(2):71–78.
- Balcazar H, Hollen ML. The promotores de salud community outreach model. The North Texas Salud para Su Corazon NHLBI CVD EDUC initiative. Fort Worth, Texas. 2004 Production. Available upon request from author (HB).
- Balcazar H, Alvarado M, Hollen ML, Gonzalez-Cruz Y, Pedregon V. Evaluation of Salud para su corazon (health for your heart)–National Council of La Raza promotora outreach program.

Preventing Chronic Disease. 2005a; 2(3) Retrieved from http://www.cdc.gov/pcd/issues/2005/jul/04_0130.htm.

Balcazar H, Luna Hollen M, Medina A, Pedregon V, Alvarado M, Fulwood R. The North Texas Salud para su corazón promotor/a outreach program: an enhanced dissemination initiative. The Health Education Monograph Series. 2005b; 22(1):19–27.

Balcazar H, Alvarado M, Hollen ML, Gonzalez-Cruz Y, Hughes O, Vazquez E, Lykens K. Salud para su Corazon-NCLR: a comprehensive Promotora outreach program to promote heart healthy behaviors among Hispanics. Health Promotion Practice. 2006; 7(1):68–77. [PubMed: 16410422]

Balcazar, H.; Byrd, T. Cómo controlar su hipertensión. UT School of Public Health-CDC- Project. Retrieved, from https://xfiles.uth.tmc.edu/xythoswfs/webui/_xy-1937631_1-t_BTd1XO6o

Balcazar H, Rosenthal L, de Heer H, Aguirre M, Flores L, Vasquez E, Duarte M, Schulz L. Use of a community based participatory research to disseminate baseline results from a cardiovascular disease randomized community trial for Mexican Americans living in a U.S.-Mexico border community. Education For Health. 2009a; 22(3):279. <http://www.educationforhealth.net/>. [PubMed: 20029761]

Balcazar H, Byrd T, Ortiz M, Sumanth R, Chavez M. A randomized community intervention to improve hypertension control among Mexican Americans: using the promotoras de salud community outreach model. Journal of Health Care for the Poor and Underserved. 2009c; 20:1079–1094. [PubMed: 20168020]

Balcazar H, Alvarado M, Cantu F, Pedregon V, Fulwood R. A promotora de salud model for addressing cardiovascular disease risk factors in the US-Mexico border region. Preventing Chronic Disease. 2009c; 6(1) Retrieved, from http://www.cdc.gov/pcd/issues/2009/jan/08_0020.htm.

Balcazar H, de Heer H, Rosenthal L, Aguirre M, Flores L, Puentes F, Cardenas V, Duarte M, Ortiz M, Schulz L. A promotores de salud intervention to reduce cardiovascular disease risk in a high-risk Hispanic border population, 2005–2008. Preventing Chronic Disease. 2010; 7(2) Retrieved, from http://www.cdc.gov/pcd/issues/2010/mar/09_0106.htm.

HEART. NIH/NCMHHD Project HEART. 2011. Retrieved, from <http://heart.utep.edu>

de Heer HD, Balcazar HG, Castro F, Schulz L. A path analysis of a randomized promotora de salud cardiovascular disease-prevention trial among at-risk Hispanic adults. Health Education & Behavior. 2011

Hollen ML, Balcazar H, Medina A, Ahmed N. The North Texas Salud Para Su Corazon (Health For Your Heart) outreach initiative: serving Hispanics in Fort Worth and Dallas. Texas Public Health Association Journal. 2002; 54(4):5–12.

Mancini K, Marek L. Sustaining community-based programs for families: Conceptualization and measurement. Family Relations. 2004; 53(4):339–347.

Medina A, Balcazar H, Hollen ML, Nkoma E, Soto Mas F. Promotores de salud educating Hispanic communities on heart-health living. American Journal of Health Education. 2007; 38(4):194–202.

Moreno C, Alvarado M, Balcazar H, Lane C, Newman E, Ortiz G, Forrest M. Heart disease education and prevention program targeting immigrant Latinos: using focus group responses to develop effective interventions. Journal of Community Health. 1997; 22:435–450. [PubMed: 9403401]

Appendix

Explanation- Sustainability Guidelines for Framework Development of Inputs and Outputs of Salud Para Su Corazon Family of Programs

Definitions of Terms/Concepts

I- Inputs—Inputs are things built-in such as materials that the organization or program takes in and then processes to produce the results desired by the organization. Types of inputs are people, money, equipment, facilities, supplies, people's ideas, people's time, research base etc. Inputs can also be major forces that influence the organization or programs. For example, the inputs to a nonprofit program that provides training to clients might include participants, training materials, trainers, classrooms, funding, paper and

pencils, etc. Various laws and regulations effect how the program is conducted, for example, clinic protocols and procedures. Inputs are often associated with a cost to obtain and use the item -- budgets are listings of inputs and the costs to obtain and/or use them. (Source: Guidelines and Framework for designing Basic Logic Model, http://managementhelp.org/np_progs/np_mod/org_frm.htm)

Within the context of sustainability we have identified 9 different types of “inputs” that will provide information relative to what “things” were built in “your” particular Salud para Su Corazon Family of Programs

II- Outputs—Outputs are usually the tangible results of what is done and who is reached in the major processes within the organization. They are usually accounted for by their number, for example, the number of participants who drop out of the classes, courses taught, pre and post tests taken, trainers used, etc. Outputs are frequently misunderstood to indicate success of an organization or program. However, if the outputs aren't directly associated with achieving the benefits desired for participants, then the outputs are poor indicators of the success of the organization and its programs. You can use many trainers, but that won't mean that many participants were successfully trained.

Within the context of sustainability we have identified 5 different types of “outputs” that will provide information relative to what “tangible results, successes ” were built after “your original” project/program of Salud Para Su Corazon terminated (i.e. as defined in Input # 2)

III- Sustainability Framework—Organization of inputs and outputs associated with sustainability for Salud Para Su Corazon Family of Programs (See Figure).

INPUTS

1. **Lead organization:** Name of lead institution/organization that was primarily responsible for the development and implementation of the project/initiative. Provide a title to the project.
2. **Financial support and duration of project:** Identify financial support received during the project. Identify type of funding received (i.e., contract, grant from federal agency- other agencies, donation, etc).
3. **Type of project:** Define the specifics of the project in terms of (a) primary, secondary, tertiary prevention; (b) type of design (pre, post, randomized, pre only, post only; (c) type of service delivery and target audience.
4. **Development of resource capital and empowerment model:** Define how resources and infrastructure (educational, organizational, etc) were initially designed to develop and implement project. Define the type of empowerment approach use to develop the project (ie CBPR community-based participatory research, leadership, role-modeling, etc).
5. **Formative assessment (s) and planning:** Define what planning activities and/or assessments were used to provide initial support (ie technical, informational, research, etc) to develop the project. Define length of time spent in assessment and planning activities.
6. **Program design and implementation:** Identify the different strategies/methods used during program design and program implementation.
7. **Implementation capabilities and resource management:** Specify how close-the planning matched the implementation of project activities. Identify how efficient or

effective were the management of available resources during implementation phase.

8. **Evaluation components:** Define what strategies were used to evaluate the different components of the project.
9. **Impact at different levels:** Provide specific numbers of partners involved; CHWs/PS trained; participants reached with various project activities and interventions; relationships established; students trained and mentored Promotores; educational materials developed; and impact in behavior change including intentions to change behavior, attitudes, and changes in clinical measures.

SUSTAINABILITY OUTPUTS

1. **Infrastructure development at lead organization/institutional level:** Define what infrastructure within the lead organization was developed and kept after the project ended.
2. **Infrastructure development outside lead organization:** Define what infrastructure was developed at an organization outside the lead agency. Specify what type of infrastructure (financial, programmatic, human resources, etc).
3. **Community level involvement and actions:** Identify specific actions including changes in environment, education, schools, worksites, grocery stores, restaurants, etc that were initiated at the community level as a result of the impact of the project.
4. **Policy:** Provide specific examples of policy/legislation that was directly-indirectly related to the results/activities of the project.
5. **Research enterprise:** Identify all of the different research outputs that have been produced as a result of the project. These include: a) publications, similar/related funded projects that have leverage from the initial parent project.

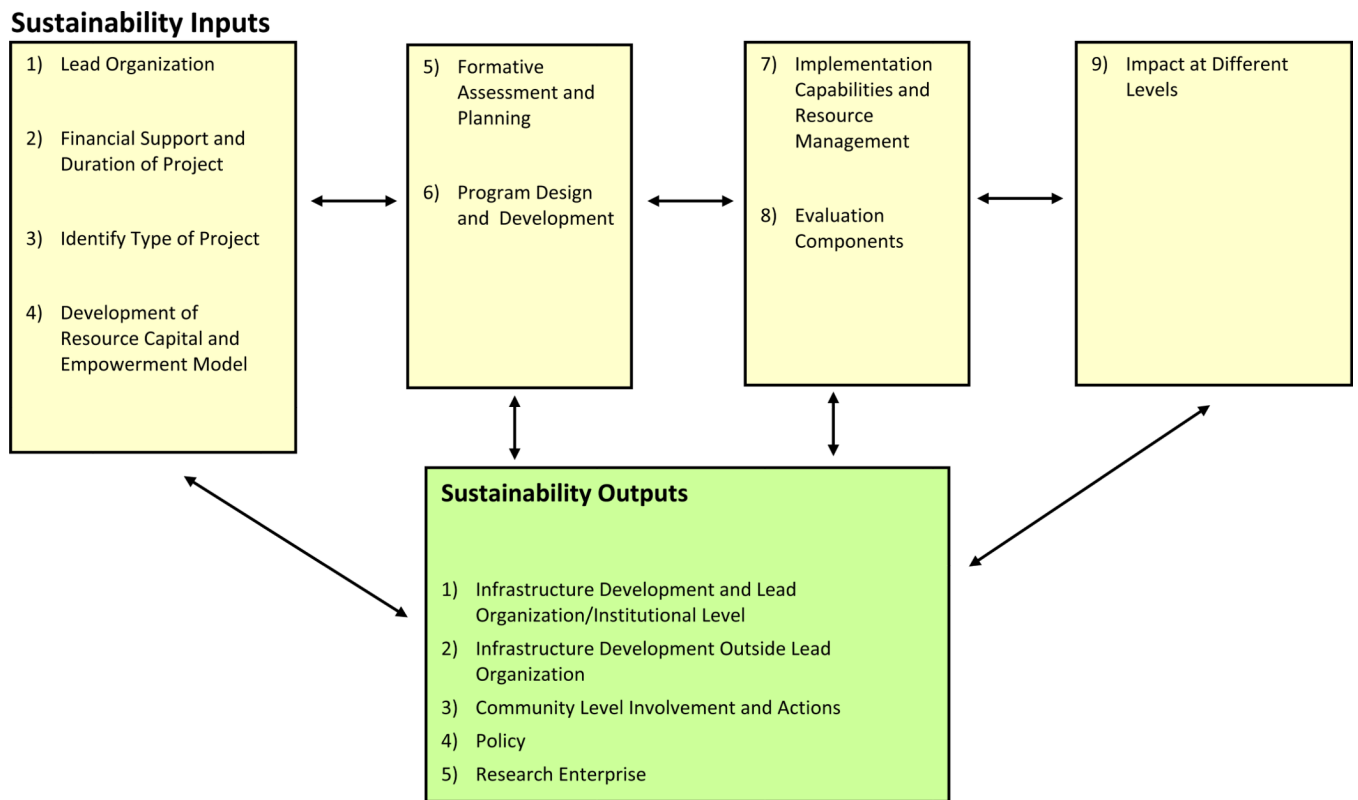


Figure.
Salud Para Su Corazon sustainability framework model.

Table

Examples of Approaches Where Community Health Workers Can Function as Agents of Change

	Medical Approach	Community Approach	System's Approach
SPSC-NCLR	Screening and referral opportunities can be connected with the communitybased organization where CHWs are housed and operate within a framework that bridges service delivery in the medical setting.	The CHWs have a home at a community-based organization. Training opportunities for CHWs become available. The CHWs reach families with education (activities start in a group environment). Referrals and possible navigation to the medical delivery may be initiated.	The CHWs bring opportunities outside the community-based organization through health fairs, media outlets, school activities, recreational opportunities in parks, etc.
SPSC-NT	Screening and referral opportunities may exist with the partnerships developed through an alliance of partners. Medical and health service delivery partners need to be identified.	The CHWs develop a team approach with researchers and the alliance following CBPR actions. Educational and training activities with CHWs are launched in the community. An infrastructure needs to be developed to support the CHW approach.	The CHWs reach out to schools, churches, community- based organizations with the support of the alliance to deliver educational opportunities. An infrastructure of CHW's is more difficult to establish given the nature of the program developed at the university level.
SPSC-HRSA	Strong potential to build a medical home whereby screening and diagnosis is linked to the CHW model.	The CHWs develop community-based activities as a result of having a medical home and the potential to follow up patients and work with families of the patients.	The CHWs may develop community outreach and educational activities within the outpatient system. Reaching out to partnerships may provide opportunities to work collaboratively with other systems of delivery (schools, churches, etc).
SPSC-HEART phase 1 and 2	A federally qualified community health clinic was the site of the CBPR activities to launch the RCT in the community. Screening and clinical-type counseling is established. In the phase 2 ecological approach a clinic/ medical system of delivery needs to be connected to provide outreach services and to link with other potential partners in the community.	The CHWs are coordinated by the clinic in phase 1. For phase 2 CHWs are housed in a new setting to deliver a more ecological model of activity (YWCA and Parks and Recreation). A strong CBPR approach is implemented with strong partnerships through a community health academy and leadership council. The CHWs are supported by many partners including training and leadership opportunities.	A more ecological approach is defined by having new delivery components including the YWCA, Parks and Recreation. A policy development arm is included to support the work of CHWs and to build workforce capacity for CHWs. This type of ecological project needs to be the gold standard model of prevention for CHWs.

Abbreviations: CBPR, community-based participatory research; CHW, community health workers; HRSA, Health Resources and Services Administration; HEART, health education awareness research team; NCLR, National Council of La Raza; NT, North Texas Initiative; SPSC Salud Para Su Corazon; RCT randomized community trial; YWCA, Young Women's Christian Association.