Líderes de Salud Reproductiva:
Systematic Review, Program Plan, and Evaluation Plan

by

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Introduction

Due to the rapidly growing Latino population in North Carolina, health disparities between Latinos and non-Latinos, most notably non-Hispanic whites, have become increasingly evident. These disparities are particularly salient in the area of reproductive and sexual health. For this reason, El Pueblo, a non-profit Latino-focused organization in Raleigh, developed the Líderes de Salud Reproductiva program. This program uses a lay health advisor (promotora) model to improve knowledge about reproductive health in the Latino community, in the hopes of positively affecting health behaviors and thus improving health outcomes. This paper includes a program plan and evaluation plan for the second phase of the Líderes de Salud Reproductiva program, in which the program will be converted from a promotora training program to a train-the-trainer program in an effort to expand the program’s reach beyond Wake County.

Latinos in NC

Latinos are the largest and fastest growing ethnic minority in nationally as well as in North Carolina, now comprising approximately 15% of the US population and 7% of the NC population. The Latino population in NC is growing faster than the population nationally, with close to a 400% growth rate between 1990 and 2000. Compared to Latinos nationally, Latinos in North Carolina are more likely to be foreign born and to be non-citizens. Most Latino immigrants in North Carolina are from Mexico, but many others come from Puerto Rico, Cuba, and Central and South America. Compared to other ethnic groups in North Carolina, Latinos are more likely to be employed, but are also more likely to live below the poverty line and to lack health insurance coverage.

Reproductive Health Disparities Affecting Latinos in NC
Numerous health disparities have been documented between Latinos and non-Hispanic Whites in North Carolina in areas ranging from prenatal care to dental health to obesity and physical activity. Among the most striking disparities, however, are those related to sexual and reproductive health. Comparing STI rates (cases per 100,000 population) of Latinos and non-Hispanic whites in North Carolina, Latinos have higher rates of Chlamydia (287.1 vs 120.6), Gonorrhea (67.4 vs 42.8), Syphilis (1.7 vs 1.3), and HIV (26.9 vs 9.1). Latinos also have disparately high rates of unintended pregnancy with 41.2% of unplanned compared to 35.0% for non-Hispanic whites. The disparities in teen pregnancy rates are even more salient, with 185.9 per 1,000 among Latinos as compared to 92.4 for non-Hispanic blacks and 47.7 for non-Hispanic whites. These disparities illustrate the need for programs focused on reproductive health among North Carolina’s Latino population.

Natural Helpers and Lay Health Advisor Interventions

The Líderes de Salud Reproductiva program is a lay health advisor (LHA) intervention, which is a community-level approach to health promotion that has emerged over the last 20 years, based on the concept of natural helpers. Natural helpers are individual community members who others turn to for advice, social support, and assistance. This role is informal and often not explicitly recognized. Natural helpers are effective in improving community health and wellbeing, because they are members of the community and thus understand the community’s strengths and needs and provide support and assistance in culturally appropriate ways. LHA interventions capitalize on this concept by enlisting community members to provide health-enhancing support and assistance to their communities. These interventions fall along a spectrum, ranging from training LHAs to act as natural helpers and provide informal advice and support to members of their social networks, to hiring LHAs as employees of an agency to act as
outreach workers and provide more formal support to community members. LHA interventions have been used in many different types of communities to address a wide variety of health issues and improve community capacity and competence. 

LHA interventions have been proposed and initiated as a way of reaching the growing Latino population in the US, because of the ability of LHAs to provide tailored and culturally appropriate messages. Therefore, this is the approach El Pueblo has chosen for their health outreach programs.

**History of Lideres de Salud Reproductiva Program**

El Pueblo is a non-profit statewide advocacy and public policy organization, based in Raleigh which aims to strengthen the Latino community in North Carolina. One of their areas of focus is health. Within this area, they have developed the “Lideres de Salud” lay health advisor program, through partnerships with three community-based organizations: St Burnadette Catholic Church in Fuquay-Varina, Urban Ministries Open Door Clinic, and the Circle of Hispanic Ministries of the Raleigh District of the United Methodist church. This program trains lay health advisors (“promotores de salud”) on a range of topics including immunizations, dental care, asthma, obesity, diabetes, and the US health care system. Over three years the program trained 90 promotores in Wake County.

At the end of the first phase of this program in 2006, Florence Siman, the program director, convened three groups of promotores to discuss next steps. The overwhelming response was that the promotores desired information on reproductive health. They were concerned about STIs in their community, worried about how to talk to their children about sex, and interested in family planning options and resources.
With this in mind, El Pueblo applied for and received a grant from Ipas, an international women’s health organization, to develop a reproductive health lay health advisor curriculum and begin training lay health advisors in Wake County on this topic. Between 2006 and 2007 Florence Siman worked with Tania Connaughton-Espino from Ipas, a health educator from the NC Department of Health and Human Services, and several of the promotoras from the Líderes de Salud program to develop the “Líderes de Salud Reproductiva” curriculum. They drew from other lay health advisor curricula developed by Our Bodies Ourselves Latina health initiative, Ipas, Pacific Institute for Women’s Health, and Advocates for Youth. The curriculum consists of 10 sessions about: introduction to being a reproductive health promotora, reproductive rights and human rights, anatomy and puberty, gender and sex, sexual orientation, STIs, family planning, how to talk to kids about sex, and unintended pregnancy and abortion.

In the spring of 2007 Florence and Tania trained the first group of 10 reproductive health promotoras, who were all previous Líderes de Salud participants in Raleigh. In the fall of 2008, another group of 13 promotoras from Fuquay-Varina underwent the training. In this second group, five participants were previous Líderes de Salud promotoras and eight were new to the program, recruited by the previous participants.

Now, in 2009, the grant from Ipas has ended, and Florence and Tania are looking for ways to continue and expand the program. Their vision is to develop a “train the trainer” program, in which individuals from other areas can be trained to use the Líderes de Salud Reproductiva curriculum to train lay health advisors in their respective communities.

Program Plan and Evaluation Plan

This paper will include a literature review of similar LHA interventions as well as a program plan and an evaluation plan for the train-the-trainer phase of the Líderes de Salud
Reproductiva program. The program plan will analyze the program context, state the program’s goals and objectives, consider the theoretical basis for the program, present a logic model for the program’s effects, and suggest the details of and timeline for program implementation. The evaluation plan will then explain the importance of program evaluation and the role of the evaluator, and will describe the evaluation design, methods, questions, and plan for dissemination. Taken together, this program plan and evaluation plan should assist the program coordinators at El Pueblo in garnering funding for this program, effectively implementing it, and subsequently conducting an evaluation to assess its effectiveness and facilitate quality improvement.

Systematic Review

Introduction

The “Líderes de Salud Reproductiva” program is based on a lay health advisor (LHA) model. Therefore, this systematic review will examine the literature on the use of the LHA approach in Latino communities. I will first examine the evidence from systematic reviews. I will then describe several LHA programs targeting HIV prevention. Next, I will review several comprehensive reproductive health LHA programs implemented by Planned Parenthood affiliates. Finally, I will describe and analyze the Plain Talk/Hablando Claro program developed by the Annie E Casey Foundation and implemented in numerous communities across the country.

Search Strategy

The literature search utilized Medline, CINAHL, and Google Scholar databases. Search terms included Latina and promotora, promotor, lay health advisor, community health worker, or train the trainer. Initially the terms reproductive health or sexual health were included as well,
but these yielded no results and were removed. Studies chosen included systematic reviews as well as studies of programs targeting sexual or reproductive health outcomes. Additional studies were found using the reference lists of the systematic reviews.

Evidence from Systematic Reviews

Rhodes and colleagues (2007) examined 37 studies that described and/or evaluated lay health advisor (LHA) programs used in Latino communities. Study designs of these papers included descriptive studies, quasi-experimental studies, and experimental studies. The outcomes targeted by the programs were divided into eleven categories: cancer prevention and screening (14), prenatal health (5), general health promotion and disease prevention (4), cardiovascular disease prevention (4), HIV (3), access to healthcare services (2), diabetes (2), eye safety (1), environmental health (1), and asthma management (1).

Programs involved anywhere from 2 to 85 LHAs. In 28 of the studies LHAs were female, while 5 studies included both men and women, and 4 did not specify LHA gender. All studies stated that LHAs matched the target population in the communities by country of origin and current geographic location. Training for LHAs generally involved didactic sessions to increase knowledge as well as skills practice. The length of LHA training ranged from 6 to 160 hours. Some programs completed training prior to beginning the intervention, while others had ongoing training and booster sessions throughout the intervention period. Six main roles of LHAs were identified in the studies: supporting participant recruitment and data collection, serving as health advisor and referral services, distributing materials, being role models, advocating on behalf of community members, and being co-researchers.

Details of the evaluation process for each program were not described in the review. Fourteen out of the 37 studies showed evidence of effectiveness, 12 of which were studies that
had a comparison or control group. Statistically significant outcomes reported in the review for these LHA studies include: decreased energy, fat, and carbohydrate intake; increased use of cancer screening; smoking cessation; increased initiation and number of prenatal care visits; increased referral and enrollment of Hispanics/Latinos; increased behaviors promoting cardiovascular health; reduced perceived barriers to healthcare; decreased dropout in diabetes prevention interventions; increased family support and self care for patients with diabetes; increased condom use; increased HIV knowledge and perceptions about sexual risk; and increased use of protective eyewear among farm workers.

According to Rhodes, all studies had limited follow-up. The authors concluded that a stronger evidence base is needed to draw an overall conclusion about the effectiveness of these programs. Specifically, more information is needed on the selection process for LHAs, the details of LHA training, distinctions between how LHAs are trained and the activities they implement in the communities, the evaluation process for LHA programs, and the effect size of outcomes.

One limitation of this review is that there are no quality criteria for included studies. This allows inclusion of more studies for examination, but prevents authors from drawing conclusions from the review because of the poor internal validity of many of the studies. Another limitation is that the authors do not include methods used for program evaluation, which would be useful in understanding the effects demonstrated. Finally, none of the programs included in the review focus on reproductive or sexual health outcomes. This is not a limitation of the study itself, but rather of the literature overall and its limited applicability to our current program. Three of the studies did focus on HIV prevention, which is one component of our curriculum; therefore the methodology and evaluation of these studies will be addressed in the next section.
Wasserman and colleagues (2007) conducted a systematic review of intervention studies targeting utilization of maternal and child health services by Latina women, specifically focusing on cervical cancer screening, prenatal care, and child immunizations. They categorized interventions as improvements within formal healthcare settings, outreach through lay health advisors and the media, or combined approaches. Within the second category, they separated lay health advisor interventions that involved the media and stand-alone lay health advisor outreach interventions.

Examining the 8 stand-alone LHA outreach interventions, the authors describe evidence from one randomized controlled trial and several pre-test/post-test design studies that lay health advisor interventions can increase knowledge about cervical cancer screening as well as utilization of cervical cancer screening services among Latinas. They acknowledge the inherent methodological limitations of the studies that lack a control or comparison group, but conclude that LHAs are well-received by reproductive age Latina women and can positively affect preventive health service use if they receive sufficient support, recognition, and opportunities for advancement.

Again this review does not include quality criteria for its studies, but it did exclude studies that did not include an evaluation of their intervention. Because only one of the LHA studies was an randomized controlled trial and the others did not include a comparison or control group, the overall internal validity of this review is also fair to poor. However, these are the only studies available and thus are all the evidence we have on which to make decisions. The studies included in this review do not relate directly to our current program because the topics of cervical cancer screening, prenatal care, and child immunizations are not included in our reproductive health promotora curriculum. However, if LHA programs increase preventive...
service utilization, one could hypothesize that they may increase utilization of other services such as sexually transmitted infection screening or family planning services.

**HIV Prevention LHA Programs**

Of the LHA interventions examined in Rhodes and colleagues' systematic review, those most closely related to our reproductive health promotora program are two of the HIV prevention interventions. McQuiston and colleagues (2003) describe the Protegiendo Nuestro Comunidad (Protecting Our Community) program for Mexican immigrants in North Carolina. For this program 15 women and 3 men who were considered to be "natural helpers" in their community were recruited to complete a 7 week LHA training program about HIV and STI prevention. The goal of the program was both to increase knowledge among the LHAs, but also to empower them to share that knowledge with their communities and thus empower others to improve sexual health behaviors in their community.

The program was evaluated qualitatively by interviewing the LHAs 3-5 months after completion of the training. Interview questions related to program objectives and aimed to assess both empowerment and supportive activities necessary for the prevention of HIV/AIDS. Questions were grouped into the categories of: recipients, setting, and technique; information and referral; direct assistance; emotional support; and individual empowerment. The interviews revealed that the LHAs believed they were meeting program objectives and that they had both the knowledge and capacity to educate their community about HIV and to affect change in their community. LHAs reported that they were targeting their messages based on the knowledge and beliefs of their friends, family, and neighbors. They were mainly speaking with friends and family in their homes and were giving information on HIV and encouraging STD and HIV testing.
While this qualitative method is appropriate for addressing the question of the roles and experiences of LHAs and their feelings of empowerment, it does not answer the question of the effectiveness of the program in changing sexual health behaviors in the community. Another concern is that the interviews were conducted by the research team, which could lead to social acceptability bias in that the LHAs may say what they think the researchers want to hear in the interviews.

This program is similar to our reproductive health promotora program in that the LHAs are acting in a “natural helper” role in their communities, rather than putting on formal presentations or counseling sessions\textsuperscript{11}. The difficulty with this role is that it is difficult to evaluate quantitatively. McQuiston’s program is also similar to ours in that it targets the North Carolina Latino population. The main difference between Protegiendo Nuestro Comunidad and our reproductive health promotora program is that our program is more comprehensive in terms of reproductive health topics covered rather than focused specifically on HIV and STI prevention, which may or may not change the LHAs perceptions of their capacity to share this knowledge\textsuperscript{11}.

Martin and colleagues (2005) also describe a LHA program targeting HIV prevention in the Latino community\textsuperscript{12}. In their program 26 LHAs (“promotoras”) received a 40 hour Red Cross HIV training as well as a separate 13 session promotora training course led by an experienced promotora\textsuperscript{12}. These LHAs conducted HIV educational programs for a combined 704 community members in three different settings: either with individuals and families in their homes, with small groups in a home, or with larger groups in churches or schools\textsuperscript{12}.

The program was evaluated by having the LHAs give pre and post tests at every educational program. The tests contained questions about HIV knowledge and about self-
perceived risk and perceived partner risk. Their results showed that knowledge scores increased from a mean of 75% (95% CI 73-78%) at pre-test to a mean of 87% (86-88%) at post-test \(^{12}\). Additionally, for each 10% gain in knowledge, the odds ratio for a change in self-perceived risk was 1.22 (1.04-1.44) \(^{12}\).

The strength of the evaluation of this program was that it was quantitative and did measure the knowledge and attitudes of the community members rather than only of the LHAs. However, it only measured immediate knowledge gains rather than long-term gains and did not assess health behavior change. This program differs from our reproductive health promotoras program in that it focuses on HIV only and in that the promotoras are presenting a specific educational program to community members rather than acting in a “natural helper” role, thus limiting the applicability of their findings to our program.

**Planned Parenthood Promotora Programs**

Although not described in the peer-reviewed literature, Planned Parenthood Federation of America published a *Guide to Promotora Programs* in 2001 in which they review LHA model programs that their affiliates have implemented targeting reproductive health among Latinas \(^{13}\). These are all more comprehensive programs than those described above and in this way are most similar to our reproductive health promotoras training.

Training for promotoras varies by program, but most include information on topics including reproductive anatomy, contraception and pregnancy options, STIs including HIV, and sexuality. Some include additional topics such as breast and cervical cancer, menopause, violence against women, drugs and alcohol, and talking with children about sex. Most programs also included training on communication skills and facilitation techniques. Promotora roles in most programs involved one on one communication with community members as well as
presentations to groups. Promotoras were paid in all programs, but some were paid by the hour and others by number of presentations given. One program paid women a flat rate for completing the training and then another stipend if they made 50 contacts with women in the community. 13

Evaluation strategies and results also varied by program. Several programs used a pre/post test design either for promotoras or for community members who attended promotora presentations. The Confiánza program of Planned Parenthood of Central North Carolina measured knowledge and attitudes among promotoras before and after the training and found a 16% increase in knowledge and desirable attitudes. The Promotoras program in Houston, TX conducted pre and post tests before and after promotora-led presentations, and they found that women were more likely to make an appointment for an exam after listening to a presentation, though they did not state whether appointments were actually made or only intended. With this same evaluation method, Adult Role Models, a program in NY found that more parents intended to talk to their children about sex more frequently and earlier than before attending the workshop. 13

Another common method of evaluation was through focus groups and questionnaires. Promotoras Communitarias in Los Angeles used this method with both promotoras and community members who had attended presentations given by the promotoras. They found that both promotoras and community participants reported positive changes in knowledge, attitudes, and health behaviors. Though there were no pre/post test measures, women reported that the training and education had improved their self-esteem, confidence, and communication skills, and had led to a greater use of preventive health practices including contraception, breast and cervical cancer screening, and improved nutrition. Promotoras Pro-Salud in San Diego, CA also found through focus groups and questionnaires that promotora presentations increased desirable
attitudes and behaviors among contacts, including increasing correct condom use, and increased the number of pap smears obtained by these women.\textsuperscript{13}

Unfortunately the methodologies of these evaluations and the data collected have not been published except in this cursory review format. Therefore, while the results appear quite positive, it is impossible to critically appraise the studies and thus to draw conclusions from the information available.

\textbf{Plain Talk/Hablando Claro}

The Plain Talk or Hablando Claro program was developed by the Annie E. Casey Foundation in 1993 with the goal of decreasing teen pregnancies and STIs by increasing communication between adults and adolescents about sexual health. The program has three main components: community mapping, Walkers & Talkers, and Home Health Parties. In Phase I of the program, community mapping is used first to determine neighborhoods that would benefit from the intervention and agencies to implement the program. Then, through surveys, the community mapping process gathers information on community attitudes, knowledge, and beliefs about teen sexual behavior and uses this information to involve residents in tailoring the interventions. Phase II of the program focuses on community outreach and mobilization through Walkers & Talkers and Home Health Parties. Walkers & Talkers are resident volunteers who go door-to-door as well as to schools, community centers, and businesses to spread the Plan Talk message as well as to recruit community members to host Home Health Parties. Home Health Parties are gatherings of community members in residents’ homes at which adults are educated about sexual health issues and the communication skills needed to discuss sexual health with their children or with other adolescents, thus creating what the program refers to as “Askable Adults.”\textsuperscript{14}
Plain Talk/Hablando Claro was initially implemented in six low-income urban neighborhoods in Atlanta, Hartford, Indianapolis, New Orleans, San Diego, and Seattle. Of these sites, only the San Diego neighborhood was comprised completely of Latino residents (either Mexican or Mexican American) and thus exclusively used the Hablando Claro, Spanish language version of the program\(^1\).

Public/Private Ventures (P/PV) conducted both process and outcome evaluations of the Plain Talk/Hablando Claro program in the Atlanta, San Diego, and New Orleans sites. Process evaluations were mainly based on interviews and focus groups, while the outcome evaluation was based on surveys of adolescents in 1994 and again in 1998 as well as comparisons of teen pregnancy rates between Plain Talk communities and similar communities that did not receive the intervention\(^2\),\(^3\). The evaluation found that Plain Talk/Hablando Claro increased levels of communication between adults and sexually active youth as well as increased youth awareness about where to obtain birth control\(^4\). Additionally, youth who reported talking to an adult in the community about sex knew more about and were more likely to use contraceptives, used more reproductive services, and were less likely to have an STI or pregnancy than those who did not talk with an adult\(^4\). Finally, between 1994 and 1998, the rate of sexually experienced adolescents who had been pregnant or caused a pregnancy decreased from 33% to 27%, whereas based on the rate of change in similar communities, the predicted rate without the Hablando Claro program would have been 38%\(^4\).

Examining results specifically related to the Walkers & Talkers, which are similar to LHAs, Plain Talk communities that used Walkers & Talkers reached larger numbers of community members than those who used Home Health Parties alone\(^4\). Additionally, compared to professional peer educators used in the Atlanta community, Walkers & Talkers in the New
Orleans and San Diego communities delivered more explicit sexual information to community members\textsuperscript{14}.

Since this evaluation, the Plain Talk/Hablando Claro program has been implemented in 24 sites in 11 states\textsuperscript{14}. P/PV's Replication and Expansion unit provides support for initial program implementation in new sites through on-site training, conference calls with key stakeholders, advocating for the program with community and political decision-makers, assisting in preparing the data collection system, sharing knowledge of available funding sources, and ongoing problem solving\textsuperscript{14}. In 2005 the organization Chatham County Together! in partnership with the Adolescent Pregnancy Prevention Coalition of North Carolina (APPCNC) received a grant from NC Department of Health and Human Services to initiate the Hablando Claro program in Siler City, NC\textsuperscript{16}. At present, they are in the community-mapping phase of the program.

Plain Talk/Hablando Claro is an important example to consider in planning the Líderes de Salud Reproductiva program, because unlike the previously reviewed programs, Plain Talk/Hablando Claro is a train-the-trainer type program. The Annie E. Casey Foundation and P/PV do not train individual LHAs or Walkers & Talkers, but rather partner with local organizations and assist them in implementing the program, which is what El Pueblo aims to do with this phase of the Líderes de Salud Reproductiva program. Unfortunately, the Plain Talk/Hablando Claro publications do not offer details about the on-site training that is given to these local organizations, which would have been helpful to understand. They do offer evidence of the program's effectiveness, although only in summary. This evidence provides support for the use of LHA interventions to target reproductive health outcomes in Latino communities. However, because the program was multi-faceted, it is difficult to determine how much of its
effectiveness can be directly attributed to LHAs. Additionally, the data is presented by site, so it is not possible to examine the effectiveness specifically in Latino communities.

Conclusion

The above evidence review suggests that LHA interventions have been extensively used as a means of addressing reproductive health knowledge, attitudes, and behaviors within Latino communities. While many of these programs have been evaluated and indicate positive effects, more evidence is needed to conclusively determine the effectiveness of this strategy. In particular, more evidence is needed on train-the-trainer programs, as Plain Talk/Hablando Claro is the only reviewed program that has replicated and expanded their intervention in the way that El Pueblo plans to do with the Líderes de Salud Reproductiva program. These examples and evidence will be considered as we move to the Program Plan.

Program Plan

Program Context

Political Context

Certain components of reproductive health included in this curriculum can be politically charged and controversial if not presented carefully. For example, the curriculum includes sessions on sexual orientation, teaching children about sex, and abortion, all of which are currently hotly debated issues in the political arena due to differing religious beliefs and political values. For this reason, care must be taken to present these topics in a factual and non-biased manner, not advocating on one side or another of the issues, but rather focusing on statistics and available resources.
Integration of other less controversial topics is also crucial. Most people can agree on human rights, anatomy, STI prevention, and to some extent family planning. Therefore these sessions will be interspersed with those that are more controversial.

Aside from the specific reproductive health topics, the currently political environment is ripe for addressing issues of health disparities. Numerous disparities in reproductive health outcomes exist for Latinas in NC\(^1\), as will be elaborated in subsequent sections. Focusing on how this program will address these health disparities, therefore, is likely to gain the most political and financial support.

*Consistency with local, state, and national priorities*

Local Priorities

The Líderes de Salud Reproductiva program was developed in response to a request by the “promotoras” from the original Líderes de Salud program in Wake County for information and training on reproductive health issues. Some of the promotoras were involved in curriculum development, so that the topics chosen for the curriculum reflected the priorities of that community.

While no formal needs assessments were conducted, we assume that the Latino communities in Orange, Durham, and Chatham counties have similar needs and interests as the promotoras in Wake County. These priorities will be further investigated upon contacting agencies in these areas to solicit participants for the “train the trainer” program.

Examining county population statistics, Chatham, Durham, and Wake counties have a higher proportion of Latino residents than the state as a whole with 12.7\%, 11.9\%, and 8\% respectively\(^1\). The Latino population in Orange County is slightly smaller but still substantial,
comprising only 6% of the population. Therefore, addressing health issues important to the Latino community could significantly affect overall population health in these areas.

Due to small sample sizes, county-level data on STIs, unintended pregnancies, and contraceptive use are not broken down by ethnicity, making it difficult to document county-level disparities in these indicators. County-level data for teen pregnancies is available and demonstrates significant disparities between Hispanics and Non-Hispanics in our counties of interest. The rate of pregnancy per in Hispanic females age 15-19 is 181.8, 264.2, 141.2, and 194.0 per 1,000 in Chatham, Durham, Orange, and Wake Counties respectively, as compared to only 50.1, 55.0, 16.2, and 35.9 per 1,000 among non-Hispanic females in the same counties. Therefore, the Lideres de Salud Reproductiva program, which addresses talking to kids about sex as well as family planning options, would address a significant local health disparity in these counties.

State Priorities

The Lideres de Salud Reproductiva program is consistent with state priorities as expressed in the Healthy Carolinians 2010 goals and objectives. One of the primary goals of Health Carolinians 2010 is to “remove health disparities among the disadvantaged.” Latinos are the largest and fastest growing ethnic minority group in North Carolina, now representing 7% of the population. Significant disparities in a variety of health outcomes have been documented between the Latino and non-Hispanic white population in North Carolina. Therefore, programs targeting the health of the Latino population are in line with this overall goal.

Among the most striking disparities are those related sexual and reproductive health. Comparing STI rates (cases per 100,000 population) of Latinos and non-Hispanic whites in North Carolina, Latinos have higher rates of Chlamydia (287.1 vs 120.6), Gonorrhea (67.4 vs
42.8), Syphilis (1.7 vs 1.3), and HIV (26.9 vs 9.1)\(^4\). Latinos also have disparately high rates of unintended pregnancy with 41.2% of unplanned compared to 35.0 for non-Hispanic whites\(^5\). The disparities in teen pregnancy rates are even more salient, with 185.9 per 100,000 among Latinos as compared to 92.4 for non-Hispanic blacks and 47.7 for non-Hispanic whites\(^5\).

In addition to the goal of eliminating health disparities, several of the focus areas and objectives of Health Carolinians 2010 relate to the reproductive health topics addressed by this program. Under the focus area of Infectious Disease, objectives include reducing the rate of Chlamydia in 15-24 year olds, reducing the rate of gonorrhea, reducing new cases of primary and secondary syphilis, and reducing the rate of HIV infection\(^19\). All of these infections and their prevention are discussed in the STI session of the reproductive health curriculum. Under the focus area of Health Promotion, several objectives address responsible sexual behavior including: increase the proportion of adolescents that abstain from sexual intercourse, increase the proportion of adolescents who use condoms if currently sexually active, and reduce the rate of unplanned pregnancies in adolescents age 10-19\(^19\). The sessions on talking to children about sex, family planning, and unintended pregnancy address these priority issues.

National Priorities

The Líderes de Salud Reproductiva program is also in-line with national priorities put forth by the CDC in Health People 2010. Like Healthy Carolinians 2010, one of the major goals of Healthy People 2010 is to eliminate health disparities\(^20\). Additionally, focus areas of Healthy People 2010 include objectives related to family planning, HIV, and STIs, all of which are addressed by the this program\(^20\).

National trends in these reproductive health indicators are very similar to those in North Carolina. Nationally, Latinos have higher rates of all STIs than non-white Hispanics, though
lower rates than African Americans\textsuperscript{21}. Additionally, Latinos have higher rates of unintended pregnancies, births within 24 months of one another, and adolescent pregnancies, as well as lower rates of contraceptive use than the non-Hispanic white population\textsuperscript{21}. Therefore, programs such as Líderes de Salud Reproductiva that address these disparities are important nationally as well as at the state level.

\textit{Acceptability to providers and recipients}

Because of the multiple levels on which this program works, we must consider acceptability of the program to the trainers, to the lay health advisors/promotoras who they will train, and to the community members who will ultimately receive the advice of the promotoras. The trainers have not been identified yet, but will likely be either health educators or health outreach workers from county health departments and “centros” or other Latino organizations. Improving knowledge about reproductive health, health behaviors, and resources for reproductive health services in the Latino community would likely be a shared priority among individuals in either of these types of organizations. The main concern we foresee is trainers having problems with time commitment. Depending on their organization and funding for the program, it may be difficult to take the time required to attend the train the trainer sessions and subsequently to recruit and train promotoras.

The promotoras who participated in the reproductive health trainings in Raleigh in 2007 and in Fuquay Varina in 2008 were very receptive to the program, and we expect future promotoras to accept it similarly. Because of the primarily Catholic religion among the Latino population, many of the women initially voiced opposition and discomfort during the sessions surrounding sexual orientation and abortion. However, when framed as raising awareness of the
issues that may exist in their community and the resources available if someone in the community asked for them, rather than as advocating for one position or the other, the women understood and accepted the importance of these sessions. Facilitating open discussion and debate during all sessions enabled this mutual understanding.

Another crucial component of the acceptability of the program to the promotoras is the trainers. These previous trainings were conducted by Florence and Tania. They are both of Latina origin, and Florence had a prior professional relationship with many of the promotoras from the Líderes de Salud program. Therefore, they were trusted and viewed as members of the community rather than as outsiders. Once the program expands to the “train the trainer” model this may not be the case. This challenge will have to be addressed in recruitment of the trainers, in that trainers who are members of the Latina community may be more trusted by the promotoras they will train. Additionally, in adapting the curriculum to train the trainers, skill building sections on gaining trust and facilitating discussion in non-judgmental ways will need to be included.

Finally, the program ultimately must be acceptable to community members, which is why the lay health advisor model was initially chosen. Lay health advisors, sometimes known as “natural helpers” are members of the community to whom others normally turn for advice. Therefore, the Líderes de Salud Reproductiva program is not forcing outside values or ideas upon community members, but rather providing them with access to more information and resources through their usual information sources.

*Healthcare system*
This program does not directly involve the health care system. The curriculum does contain information about reproductive health services such as family planning, STI testing, and abortion services. Therefore, trainers will need to be informed of the available services in their areas, as these may differ by county.

Financial Considerations

The largest cost of the program will likely be the salary of the program coordinator. Florence and Tania taught the first two sessions for promotoras, Tania as a volunteer and Florence along with her other job responsibilities at El Pueblo. Because of time constraints and competing priorities, an additional person to train the trainers and to provide technical assistance in this next phase of the program will need to be hired.

The process of recruiting trainers will incur costs as well. There will need to be printed information about the program. Communication with the various organizations and transportation to those organizations, if in-person meetings take place, will need to be financed. Costs associated with the training itself include supplies such as binders with the curriculum and a copy of Our Bodies Ourselves for each trainer, food at each session, a babysitter at each session (if they are held in the evenings), and transportation costs for the trainers. In the previous phase, promotoras were paid $100 for their participation; however, it is assumed that these trainers will be paid by their respective organizations so that cost will not be necessary.

A final significant cost will be in incentives provided to the collaborating organizations who will ultimately conduct the promotora trainings after participating in the train-the-trainer course. It is unlikely that they will agree to participate in the program if they must bear the cost.
of these trainings alone. Thus, financial incentives will be provided to assist them with this financial burden.

In terms of funding resources, none exist at this point. The previous phase of the program was funded by Ipas, but that grant expired in early 2009. New funding sources will need to be identified during the Fall of 2009, and the stipulations of each of those funders considered before proceeding with implementation.

Administrative and Technical Feasibility

The administrative framework for the program already exists through El Pueblo, though it may be more complicated than previous Líderes de Salud programs since the train the trainer program will require coordination with more outside organizations. Florence Siman is the director of health programs at El Pueblo and is one of the creators of this program, so she will be available to oversee program implementation and offer technical assistance.

No difficulties with technology or supplies are anticipated. The largest challenge will likely be human resources. A program coordinator will need to be hired both to assist with adapting the curriculum and to teach the actual training sessions. Additionally, enough interested and available trainers will need to be recruited from outside organizations to participate in the training. Besides having the interest, time, and funding, these trainers will need to have access to interested promotoras in their communities.

Stakeholders/Collaborators
In the original “Líderes de Salud” program, El Pueblo collaborated with two local churches and one clinic in the area. Of those, one of the churches has refused to participate in the reproductive health component of training due to conflicting values.

Ipas was another stakeholder in the initial two reproductive health promotora trainings. However, the grant from Ipas has expired, so they will not likely be collaborators in this next phase of the program.

The goal is to collaborate with health departments in Wake, Durham, Orange, and Chatham counties as well as with “centros” or Hispanic centers in those areas such as Centro Hispano in Durham, Centro Latino in Carrboro, and El Vínculo Hispano and Chatham Social Health Council in Chatham County. Ideally, each of these groups would be willing to send one individual from their organization to the training and subsequently offer reproductive health training sessions for promotoras in their communities. None of these relationships have been forged yet, so we must remain amenable to program changes based on the priorities and requirements of these potential partner organizations.

Time

Time will need to be allotted first to adapting the current curriculum to be appropriate for a train the trainer model, which will likely take several months.

The time required to complete the reproductive health training was 10 weeks for promotoras, but will likely be between 12 and 15 weeks once adapted for the trainers, since it will include additional sessions on the role of promotoras and promotora recruitment strategies as well as skill building and time to practice teaching the sessions.
Once one group of trainers has completed the program, it is difficult to predict how much time will be required for each of them to train promotoras and thus to measure the outcomes of the program on the knowledge and skills of those promotoras. Following from that, then, it will be even longer until effects on the community can be measured.

**Geography**

The train the trainer sessions will be held in Raleigh, but will involve trainers from Wake, Durham, Orange, and Chatham counties. Although our informal needs assessment took place only in Wake County, we believe that these surrounding counties with similar proportions of Latino immigrants will have similar needs. These counties are all within relatively close driving distance of Raleigh, so travel to the sessions should not be a substantial burden on participants.

**Goals and Objectives**

*Goal:* To improve the sexual and reproductive health of Latino men and women in Wake, Durham, Orange, and Chatham counties.

**Short Term (Trainer-Level) Objectives**

1. By December 2009, adapt Líderes de Salud Reproductiva curriculum to fit “train the trainer” model.

2. By June 2010, increase knowledge about the sexual and reproductive health of Latinas in North Carolina, among 10 trainers from Wake, Durham, Orange, and Chatham counties.

3. By June 2010, increase knowledge about the role of lay health advisors (“promotoras de salud”) among at least 10 trainers from Wake, Durham, Orange, and Chatham counties.

4. By June 2010, improve self-efficacy of at least 10 trainers from Wake, Durham, Orange, and Chatham counties to recruit LHAs (promotoras) and teach them about sexual and reproductive health.

**Long Term (Promotora-Level) Objectives**
1. By June 2011, increase knowledge about sexual and reproductive health, including local services available, among at least 100 lay health advisors ("promotoras") in Wake, Durham, Orange, and Chatham counties.

2. By June 2011, increase self-efficacy among at least 100 lay health advisors ("promotoras") to discuss sexual and reproductive health with community members.

Long Term (Community-Level) Objectives

1. By June 2012, increase knowledge about sexual and reproductive health, including local services available, among 1000 Latino community members in Wake, Durham, Orange, and Chatham counties.

2. By June 2012, improve self-efficacy among 500 Latino parents to discuss sexual and reproductive health with their children.

3. By 2014, increase contraceptive and condom use among Latinos in Wake, Durham, Orange, and Chatham counties.

Program Theory

This program draws from 2 major theories of health behavior: Social Learning Theory and Community Organization.

Social Learning Theory

Social Learning Theory is an interpersonal theory that describes individuals as existing within and being influenced by their social environments. Within this theory, the concept of reciprocal determinism asserts that behavior changes result from these interactions between individuals and their environments. This concept relates to lay health advisor programs in that the advice, support, and example of lay health advisors is presumed to affect the health behaviors of individual community members.22

The concepts of behavioral capability and self-efficacy are also Social Learning Theory concepts central to our train the trainer and lay health advisor programs. Behavioral capability is the idea that individuals must know what to do and how to do it in order to make
a behavior change, and self-efficacy is self-confidence in one’s ability to perform a specific behavior. Trainers in our program must know about sexual and reproductive health, must know how to teach about it, and must feel self-confident in their abilities to convey this information to promotoras. Similarly, promotoras must have this same knowledge as well as the self-efficacy to share this information with their community members. This is why both the train the trainer curriculum and promotora curriculum contain not only information on reproductive health, but also skill-building activities to increase self-efficacy. Finally, individuals in the community must have behavioral capability and self-efficacy to enact any of the behavior changes advocated. For example, to use contraception, individuals must know the different methods and how they work, they must know how to obtain them and to use them appropriately, and they must be confident that they can effectively use these methods to prevent unintended pregnancy before they will make that behavior change. 22

Observational learning is the final Social Learning Theory concept that applies to our program. Observational learning is the concept that people learn through the experience or example of others. If promotoras discuss sexual and reproductive health issues openly in their community, other community members may be more likely to discuss these same issues with their family and friends. 22

Community Organization

Many Community Organization concepts shaped the development of this program. One of the goals of Community Organization is empowerment. Using a lay health advisor model empowers communities by giving community members the knowledge and skills to change their own communities. 22
Another key concept, community competency, is similar to behavioral capability and self-efficacy only at the community level. Training lay health advisors on reproductive health issues will allow them to spread knowledge and skills to community members, so that as a whole, the Latino community in these areas will feel competent to discuss reproductive health openly and to obtain and utilize services to improve their health. 22

Finally, the concepts of participation and relevance, issue selection, and critical consciousness were used in curriculum and program development. Community members’ requests for a reproductive training program were the impetus for program development, and community members were involved in prioritizing topics to be included in the curriculum. The curriculum promotes critical consciousness in that instead of simply giving information on every topic, it facilitates discussion among the promotoras about the root causes of the problems at hand. 22
### Logic Model

<table>
<thead>
<tr>
<th>Resources/Inputs</th>
<th>Activities</th>
<th>Outputs</th>
<th>Short Term Outcomes</th>
<th>Long Term Outcomes</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>In order to accomplish our set of activities, we will need the following:</strong></td>
<td><strong>In order to address our problem we will conduct the following activities:</strong></td>
<td><strong>We expect that once completed or underway these activities will produce the following evidence of service delivery:</strong></td>
<td><strong>We expect that if completed or ongoing, these activities will lead to the following changes in 1-2 years:</strong></td>
<td><strong>We expect that if completed or ongoing, these activities will lead to the following changes in 3-4 years:</strong></td>
<td><strong>We expect that if completed these activities will lead to the following changes in 5-7 years:</strong></td>
</tr>
<tr>
<td>Funding</td>
<td>Adapt “Líderes de Salud Reproductiva” curriculum to a “train the trainer” curriculum</td>
<td>At least 10 trainers from health departments and centros in Wake, Orange, and Durham counties are trained to conduct “Líderes de Salud Reproductiva” trainings. Each trainer will subsequently recruit and train 5-10 promotoras from their communities. Technical assistance provided to trainers as they implement promotoras training programs.</td>
<td>At least 10 trainers will have increased knowledge about the role of promotoras, about reproductive health, and about available reproductive health services in the community.</td>
<td>1000 Latino community members will have increased knowledge about reproductive health, including local services available.</td>
<td>Rates of gonorrhea, Chlamydia, syphilis, and HIV will be decreased among Latinos in Chatham, Durham, Orange, and Wake Counties.</td>
</tr>
<tr>
<td>A reproductive health program coordinator</td>
<td>Recruit trainers from health departments and “centros” in Wake, Orange, Durham, and Chatham counties</td>
<td>Conduct “train the trainer” course</td>
<td></td>
<td>500 Latino parents will have increased self-efficacy to discuss sexual and reproductive health with their children.</td>
<td>Unintended pregnancies will be decreased among Latinos in Chatham, Durham, Orange, and Wake Counties.</td>
</tr>
<tr>
<td>UNC SPH Capstone course students</td>
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<tr>
<td>“Líderes de Salud Reproductiva” curriculum</td>
<td></td>
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<tr>
<td>Relationships with health departments and “centros” in Wake, Orange, Durham, and Chatham counties</td>
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<tr>
<td><strong>Capstone course:</strong></td>
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<tr>
<td><strong>At least 100 promotoras will have increased self-efficacy to advise community members about reproductive health.</strong></td>
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<tr>
<td><strong>At least 100 promotoras will have increased self-efficacy to advise community members about contraceptive use and condom use by Latinos in Wake, Durham, Orange, and Chatham counties will be increased.</strong></td>
<td></td>
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<tr>
<td><strong>Rates of contraceptive use and condom use by Latinos in Wake, Durham, Orange, and Chatham counties will be increased.</strong></td>
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<tr>
<td><strong>Teen pregnancies will be decreased among Latinos in Chatham, Durham, Orange, and Wake Counties.</strong></td>
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</tbody>
</table>
### Implementation Plan

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
<th>Personnel Required</th>
<th>Resources Required</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adapt Líderes de Salud Reproductiva curriculum for “train the trainer” course</strong></td>
<td>Changes to curriculum include: 1 – Additional information on the role of promotoras in health promotion, examples of similar promotora programs, how to recruit promotoras, and logistical details of implementing promotora programs (stipends, providing food and childcare, etc) 2 – Information on available reproductive health services, specific to Wake, Orange, Durham, and Chatham counties. 3 – In each of current sessions, add instructions such as “Now say...” as well as answers to frequently asked questions. 4 – Skill building section – how to lead discussions non-judgmentally, teaching skills, etc. 5 – Section on advocacy and how to encourage promotoras to advocate for the needs of their community.</td>
<td>UNC SPH capstone course students Florence Siman (El Pueblo Health Director) and Tania Connaughton-Espino for consultation and technical assistance</td>
<td>Líderes de Salud Reproductiva curriculum Resources explaining the role of promotoras/LHAs and examples of similar promotora programs Information on reproductive health services available in Wake, Durham, Orange, and Chatham counties</td>
<td>September-December 2009</td>
</tr>
<tr>
<td><strong>Hire and train Reproductive Health Program Coordinator</strong></td>
<td>Position description: Reproductive Health Program Coordinator will be responsible for recruiting trainers from Wake, Durham, Orange, and Chatham counties to participate in training course and teaching all training sessions. They will also be responsible for implementing programmatic activities and assisting in the recruitment and training of promotoras.</td>
<td>Florence Siman, El Pueblo Health Director Tania Connaughton-Espino</td>
<td>Funding to pay Reproductive Health Program Coordinator’s salary: $35,000 (FTE – 40 hrs per week) + 26%</td>
<td>September-December 2009</td>
</tr>
</tbody>
</table>
will also provide technical assistance to trainers as they implement promotora trainings in their organizations.

Requirements: Background in health education, preferably MPH. Fluent in Spanish

<table>
<thead>
<tr>
<th>Recruit trainers</th>
<th>Will initially approach health departments in Wake, Durham, Orange, and Chatham counties and Hispanic centers such as El Centro Hispano in Durham, El Centro Latino in Carrboro, and El Vinculo Hispano in Chatham county. Ideally, each will agree to send a representative from their organization through training and subsequently implement a reproductive health promotora training program at their organization. Depending on interest we may consider other possible trainers such as community health center outreach workers or previously trained promotoras. Initial contact will be made by sending brochures and by telephone. The program coordinator will meet in person with interested organizations.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reproductive Health Program Coordinator</td>
</tr>
<tr>
<td></td>
<td>Printed information describing program</td>
</tr>
<tr>
<td></td>
<td>Contact information for staff member in charge of health education at each of the previously mentioned organizations</td>
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<tr>
<td></td>
<td>Grant funding to provide incentives for these organizations to participate in the program and to cover the costs of their promotora trainings.</td>
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<td></td>
<td>January - May 2010</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Conduct “train the trainer” course</th>
<th>Depending on curriculum adaptations, course will include 10-15 sessions, lasting 3 hours each. Sessions will be taught by Reproductive Health Program Coordinator. Location and schedule will be determined by needs/preferences of the participants.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reproductive Health Program Coordinator</td>
</tr>
<tr>
<td></td>
<td>Location to conduct training. If in Raleigh, may consider El Pueblo or church where previous promotora trainings held.</td>
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<tr>
<td></td>
<td>Binders containing curriculum for each participant.</td>
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<tr>
<td></td>
<td>Our Bodies Ourselves</td>
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<tr>
<td></td>
<td>June 2010</td>
</tr>
</tbody>
</table>
| Offer technical assistance to trainers as they implement promotoras training programs at their respective organizations | After completing "train the trainer" course, each trainer will recruit and train promotoras from their communities using the Líderes de Salud Reproductiva curriculum. They will be instructed to contact Reproductive Health Program Coordinator or Florence Siman either by phone or by email with any questions or problems they have in this process. | Reproductive Health Program Coordinator
Florence Siman, El Pueblo Health Programs Director | June 2010 – June 2011 |
Evaluation Plan

Rationale for Evaluation

Evaluation of the Líderes de Salud Reproductiva program is critical for several reasons. First, it is necessary to assess the extent to which the program is meeting its objectives, including both implementation objectives as well as short and long term outcome objectives. If these objectives are not being met, changes to the program can be made to improve its effectiveness. Secondly, an evaluation plan will be necessary to initially garner funding for the program, as many grants require an evaluation plan to be in place. Additionally, results of the evaluation may justify the need for continued funding if they find the program to be effective. Finally, program evaluation will be necessary to decide if and how to expand the program. This phase of the program involves training trainers from Wake, Durham, Orange, and Chatham counties, and if it is shown to be effective, another phase could expand training to other counties. However, if program evaluation finds the program ineffective, changes will need to be made before considering expansion.

Evaluator Role

Initially a participatory evaluation will be conducted by an internal evaluator due primarily to limited funding. The Program Coordinator who teaches the train the trainer sessions will be best situated to engage the trainers for their feedback as well as to assess their knowledge, attitudes, and self efficacy following the training sessions. This way an additional person will not have to come to each training session to conduct these assessments. Collecting feedback in the form of anonymous surveys, which will be subsequently discussed, will ensure that the trainers will provide honest feedback despite
their relationship with the Program Coordinator. Moving forward in the program, each of the trainers can participate in program evaluation as well by assessing the change in knowledge, attitudes, and self-efficacy of the promotoras they train in a similar manner. The internal evaluator will need to possess strong communication skills and will need to be extremely flexible, as this is a new program and will likely be continuously changing. Ultimately, an external evaluator may need to be hired eventually to assess the long term community-level effects of the program, because this may be preferred by funders. This evaluator will need to be skilled in research and evaluation methodology.

**Engaging Stakeholders**

Evaluators will need to engage key stakeholders throughout the evaluation process. Stakeholders in this program include the Director of Health Programs at El Pueblo, the Reproductive Health Coordinator, the trainers and each of their respective organizations, the promotoras de salud, and finally the funders. Each of these stakeholders may bring different priorities and concerns to the table. For example, funders may be most concerned with demonstrating community level health outcomes, while promotoras may more concerned with increasing their knowledge about reproductive health and self-efficacy to share information with their community. Directors from El Pueblo may be interested in how many promotoras each trainer subsequently recruits and trains, while the trainers’ organizations may want some measure of the knowledge and skills their staff members are acquiring during the training process. Each of these priorities and questions will need to be considered and effectively incorporated into the evaluation.

**Challenges**
The main challenge associated with evaluation of this program is the multiple levels at which the program functions and thus needs to be evaluated. For example, while the program itself is training trainers to understand the effectiveness of the program, one must evaluate the effect on the trainers, on the promotoras they train, and ultimately on the community. However, the community level is so far removed from the initial intervention, it will be hard to demonstrate changes directly attributable to the intervention. Time is another challenge, because if the intervention does bring about promotora-level and community-level change, it will be years after initial program implementation. A final related challenge is the number of stakeholders inherent in an intervention with multiple steps and levels. Involving all stakeholders equally and integrating their perspectives and priorities may be challenging.

Evaluation Design

Evaluation of the Líderes de Salud Reproductiva program will utilize both qualitative and quantitative methods. Qualitative methodology, in the form of interviews and surveys, is most appropriate for evaluating program implementation, because it will provide detailed, in-depth information on the successes and failures of implementation. Specifically, it will allow the program coordinator, the trainers, the promotoras, and community members to give both positive and negative feedback about components of the program in which they participated and provide suggestions for improvement. This information will not only reveal the extent to which implementation objectives were met, but will also directly inform future quality improvement plans for the program.

A quantitative, quasi-experimental design will be used for the outcome evaluation, because the outcomes of interest are changes in knowledge and self-efficacy of the trainers and promotoras, which can be easily measured quantitatively through a pre/post test methodology.
Including a quantitative component to the evaluation will enable the evaluation to assess the magnitude of effect of each stage of the program, which will inform whether or not our program is having the intended effect and thus whether or not it should receive continued funding.

Evaluation of community-level outcomes will also be quantitative, but will differ from that of trainer and promotora-level outcomes, because there will not be the opportunity for pre and post tests to be administered. Therefore, a pre-experimental design will be used. Specifically, a post-test only comparison group study will be conducted in which the knowledge, self-efficacy, and use of condoms and contraceptives among community members who had interacted with promotoras will be compared to that of community members who had not interacted with promotoras to see if there is an association between the intervention and these indicators.

The quantitative and qualitative data gathered in the evaluation process will complement one another in facilitating quality improvement. For example, if the quantitative outcome data at any step of the program shows little or no effect, then one can consult the qualitative implementation data from that step to assess what problems may have arisen to hinder the desired effect. Conversely, if the outcome data shows a large positive effect, the qualitative data can reveal which aspects of the program may have contributed to that success.

Evaluation Methods

The specific methods to be used in evaluation include interviews, surveys, pre/post tests, comparison post-test only designs.

Interview

An individual interview will be conducted with the Program Coordinator following the Líderes de Salud train the trainer course. The coordinator will be asked implementation questions such as the content of the curriculum, how many sessions were held, and how many trainers were
trained. He/she will also be asked for feedback on the curriculum and on the training course including strengths, weaknesses, and suggestions for improvement.

Surveys

Surveys will be completed by trainers immediately following the train-the-trainer course and again one year later. Initial surveys will request feedback on the curriculum and the course including strengths, weaknesses, and suggestions for improvement. These surveys will also include questions about specific content areas related to outcome objectives. The second set of surveys will be sent to trainers one year following completion of the training course. These surveys will assess whether or not trainers have recruited and trained promotoras and barriers and challenges in this process.

In a similar fashion, trainers will administer surveys to promotoras immediately following each promotora training course and again one year later. The initial survey will gather feedback on the training course in general and on specific content areas related to outcome objectives. The second survey sent 1 year later will assess how many community members each promotora has engaged in discussion about various reproductive health topics and the barriers and challenges of this process. Promotoras will be given logs upon completion of training on which to document contacts with community members, and these logs will help with the completion of follow-up surveys.

Finally, surveys will be provided to community members who have interacted with promotoras. Several community member surveys and post-tests (to be subsequently discussed) will be sent to each promotora along with the 1-year promotora survey with the instruction to give the surveys and post-tests out to several community members with whom they have discussed reproductive health topics in the previous year. Addressed, stamped envelopes will
also be provided so that community members can return the surveys independently of the promotoras and thus do not have to worry about the promotoras seeing their responses. These surveys will assess community member comfort with talking to promotoras, the perceived helpfulness of discussions, changes in perceived self-efficacy and behavior changes resulting from promotora interactions, and suggestions for additional important topics to cover.

**Pre/Post Tests**

Like with the surveys, pre and post-tests will be administered at different stages during and after program implementation. First, pre/post tests assessing trainer knowledge and self-efficacy will be administered before and after the train the trainer course. Following the course, trainers will be provided with pre and post tests to administer to promotoras they subsequently train. Pre and post tests for promotoras assessing knowledge about specific reproductive health topics will be administered before and after each training session. Additionally pre and post tests covering overall knowledge of reproductive health and services available as well as self-efficacy to discuss reproductive health with community members will be administered before and after the course.

**Post-test only with comparison group**

Because it is not realistic for promotoras to administer a pre and post test to every community member they encounter, a post test only design with comparison group will be used to assess community member knowledge, self-efficacy, and contraceptive use. Post tests will be sent to promotoras 1 year following promotora training, and they will each be asked to administer tests to several community members with whom they have discussed reproductive health and to several community members with whom they have not discussed reproductive health. While this will not be a random or representative sample, and many confounding factors
are possible, it is the most feasible design and will provide some indication of the effects of the promotora intervention.

Planning Tables

*Short Term (Process) Objective 1:* By December 2009, adapt Líderes de Salud Reproductiva curriculum to fit “train the trainer” model

<table>
<thead>
<tr>
<th>Evaluation Questions</th>
<th>Participant(s)</th>
<th>Evaluation Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was the curriculum adapted by December 2009? By whom?</td>
<td>Program Coordinator</td>
<td>Interview</td>
</tr>
<tr>
<td>Does the adapted curriculum contain information on:</td>
<td>Program Coordinator</td>
<td>Interview</td>
</tr>
<tr>
<td>- the role of promotoras, similar promotora programs, and instructions for recruiting and training promotoras?</td>
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</tr>
<tr>
<td>- available reproductive health services in Wake, Durham, Orange, and Chatham counties?</td>
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<tr>
<td>- skill building?</td>
<td></td>
<td>Review Curriculum</td>
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<tr>
<td>- advocacy?</td>
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<tr>
<td>How many sessions are included in the curriculum?</td>
<td>Program Coordinator</td>
<td>Interview</td>
</tr>
<tr>
<td>Was the curriculum easy to use?</td>
<td>Program Coordinator</td>
<td>Interview</td>
</tr>
<tr>
<td>Was the curriculum easy for trainers to understand?</td>
<td>Trainers</td>
<td>Survey</td>
</tr>
<tr>
<td>What are the strengths and weaknesses of the curriculum?</td>
<td>Program Coordinator</td>
<td>Interview</td>
</tr>
<tr>
<td>Trainees</td>
<td>Program Coordinator</td>
<td>Interview</td>
</tr>
<tr>
<td>What changes should be made in the curriculum?</td>
<td>Program Coordinator</td>
<td>Interview</td>
</tr>
<tr>
<td>Trainees</td>
<td>Program Coordinator</td>
<td>Interview</td>
</tr>
<tr>
<td>What are the strengths and weaknesses of the curriculum?</td>
<td>Program Coordinator</td>
<td>Interview</td>
</tr>
<tr>
<td>Trainees</td>
<td>Program Coordinator</td>
<td>Interview</td>
</tr>
<tr>
<td>Are there important topics not covered in the curriculum?</td>
<td>Program Coordinator</td>
<td>Interview</td>
</tr>
<tr>
<td>Trainees</td>
<td>Program Coordinator</td>
<td>Interview</td>
</tr>
<tr>
<td>What changes should be made in the curriculum?</td>
<td>Program Coordinator</td>
<td>Interview</td>
</tr>
<tr>
<td>Trainees</td>
<td>Program Coordinator</td>
<td>Interview</td>
</tr>
</tbody>
</table>
**Short-Term (Trainer-level) Objective 2:** By September 2010, increase knowledge about the sexual and reproductive health of Latinas in North Carolina among 10 trainers from Wake, Durham, Orange, and Chatham counties.

<table>
<thead>
<tr>
<th>Evaluation Questions</th>
<th>Participant(s)</th>
<th>Evaluation Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which organizations agreed to collaborate and sent trainers to the course?</td>
<td>Program Coordinator</td>
<td>Interview</td>
</tr>
<tr>
<td>Which organizations declined to send trainers to the training and what were their reasons?</td>
<td>Program Coordinator</td>
<td>Interview</td>
</tr>
<tr>
<td>How many trainers underwent training?</td>
<td>Program Coordinator</td>
<td>Interview</td>
</tr>
<tr>
<td>What were the strengths and weaknesses of the training course?</td>
<td>Trainers</td>
<td>Surveys</td>
</tr>
<tr>
<td>What changes should be made to improve the training course?</td>
<td>Trainers</td>
<td>Surveys</td>
</tr>
<tr>
<td>Did the course adequately cover information about the sexual and reproductive health of Latinos in NC? If not, what additional information should be added to the curriculum on this topic?</td>
<td>Trainers</td>
<td>Surveys</td>
</tr>
<tr>
<td>Did trainers’ knowledge about the sexual and reproductive health of Latinos in NC increase?</td>
<td>Trainers</td>
<td>Pre/post tests</td>
</tr>
</tbody>
</table>

**Short-Term (Trainer-level) Objective 3:** By September 2010, increase knowledge about the role of lay health advisors (“promotoras de salud”) among at least 10 trainers from Wake, Durham, Orange, and Chatham counties.

<table>
<thead>
<tr>
<th>Evaluation Questions</th>
<th>Participant(s)</th>
<th>Evaluation Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did the course adequately cover the role of lay health</td>
<td>Trainers</td>
<td>Surveys</td>
</tr>
</tbody>
</table>
advisors?

Did the course adequately explain examples of other lay health advisor programs?

How could the information about the role of lay health advisors be improved?

Did trainers’ knowledge about the role of lay health advisors increase?

Trainers | Surveys
---|---
Trainers | Surveys
Trainers | Pre/Post Test

Short Term (Trainer-level) Objective 4: By September 2010, improve self-efficacy of at least 10 trainers from Wake, Durham, Orange, and Chatham counties to recruit promotoras and teach them about sexual and reproductive health.

<table>
<thead>
<tr>
<th>Evaluation Questions</th>
<th>Participant(s)</th>
<th>Evaluation Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did the course adequately cover strategies for recruiting promotoras?</td>
<td>Trainers</td>
<td>Surveys</td>
</tr>
<tr>
<td>Did the course provide you with the skills you need to train promotoras?</td>
<td>Trainers</td>
<td>Surveys</td>
</tr>
<tr>
<td>What could be changed about the course to better prepare you to recruit and train promotoras?</td>
<td>Trainers</td>
<td>Surveys</td>
</tr>
<tr>
<td>Did self-efficacy of trainers to recruit and train promotoras improve following the training course?</td>
<td>Trainers</td>
<td>Pre/Post Test</td>
</tr>
</tbody>
</table>

Intermediate (Promotora-Level) Objective 1: By September 2011 increase knowledge about sexual and reproductive health, including local services available, among at least 100 lay health advisors (“promotoras”) in Wake, Durham, Orange, and Chatham counties.

<table>
<thead>
<tr>
<th>Evaluation Questions</th>
<th>Participant(s)</th>
<th>Evaluation Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many trainers recruited and trained promotoras?</td>
<td>Trainers</td>
<td>Surveys</td>
</tr>
<tr>
<td>For those who did not, why not?</td>
<td>Trainers</td>
<td>Surveys</td>
</tr>
<tr>
<td>What barriers or challenges were encountered during the promotora recruitment and training process?</td>
<td>Trainers</td>
<td>Surveys</td>
</tr>
<tr>
<td>Question</td>
<td>Role 1</td>
<td>Role 2</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>How many trainers utilized technical assistance during the recruitment or training process?</td>
<td>Trainers</td>
<td>Surveys</td>
</tr>
<tr>
<td>Was technical assistance from El Pueblo helpful during the recruitment and training process? How could it be improved?</td>
<td>Trainers</td>
<td>Surveys</td>
</tr>
<tr>
<td>How many promotoras completed training?</td>
<td>Trainers</td>
<td>Surveys</td>
</tr>
<tr>
<td>What were the strengths and weaknesses of the promotora training?</td>
<td>Promotoras, Trainers</td>
<td>Surveys</td>
</tr>
<tr>
<td>What changes should be made to improve the training?</td>
<td>Promotoras</td>
<td>Surveys</td>
</tr>
<tr>
<td>Did the course adequately cover important reproductive health topics? Were there any important topics that were not covered?</td>
<td>Promotoras</td>
<td>Surveys</td>
</tr>
<tr>
<td>Did the course adequately cover what local reproductive health services are available?</td>
<td>Promotoras</td>
<td>Surveys</td>
</tr>
<tr>
<td>Did knowledge about reproductive health improve among promotoras following each individual training session? If not, in which sessions did knowledge improve and after which sessions did knowledge not improve?</td>
<td>Promotoras</td>
<td>Pre/Post Test</td>
</tr>
<tr>
<td>Did promotoras' knowledge about reproductive health increase following the entire training course?</td>
<td>Promotoras</td>
<td>Pre/Post-Test</td>
</tr>
<tr>
<td>Did promotoras' knowledge about local reproductive health services available improve following the training course?</td>
<td>Promotoras</td>
<td>Pre/Post-Test</td>
</tr>
</tbody>
</table>
Intermediate (Promotora-Level) Objective 2: By September 2011, increase self-efficacy among at least 100 lay health advisors ("promotoras") to discuss sexual and reproductive health with community members.

<table>
<thead>
<tr>
<th>Evaluation Questions</th>
<th>Participant(s)</th>
<th>Evaluation Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did the course provide you the information and skills needed to discuss sexual and</td>
<td>Promotoras</td>
<td>Surveys</td>
</tr>
<tr>
<td>reproductive health with community members?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What could be changed about the course to better prepare promotoras to discuss</td>
<td>Promotoras</td>
<td>Surveys</td>
</tr>
<tr>
<td>reproductive health with community members?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did self efficacy to discuss reproductive health with community members increase</td>
<td>Promotoras</td>
<td>Pre/Post-Test</td>
</tr>
<tr>
<td>among promotoras following the training course?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Long-Term (Community-Level) Objective 1: By September 2012, increase knowledge about sexual and reproductive health, including local services available, among 1000 Latino community members in Wake, Durham, Orange, and Chatham counties.

<table>
<thead>
<tr>
<th>Evaluation Questions</th>
<th>Participant(s)</th>
<th>Evaluation Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>With how many community members did each promotora discuss reproductive health?</td>
<td>Promotoras</td>
<td>Survey Log</td>
</tr>
<tr>
<td>To how many community members did each promotora offer resources about local</td>
<td>Promotoras</td>
<td>Survey Log</td>
</tr>
<tr>
<td>reproductive health services available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What barriers and challenges did promotoras face in discussing reproductive health</td>
<td>Promotoras</td>
<td>Survey</td>
</tr>
<tr>
<td>with community members?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What topics did promotoras most frequently discuss with community members?</td>
<td>Promotoras</td>
<td>Survey Log</td>
</tr>
<tr>
<td>Do community members feel comfortable talking to</td>
<td>Sample of community</td>
<td>Survey</td>
</tr>
<tr>
<td>members who have</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Do community members find the information offered by promotoras useful?  
Sample of community members who have interacted with promotoras  
Survey

Is there any information community members wanted that promotoras were unable to provide?  
Sample of community members who have interacted with promotoras  
Survey

Is knowledge about sexual and reproductive health higher among community members who have interacted with a promotora than among community members who have not interacted with a promotora?  
Sample of community members who have interacted with promotoras and of community members who have not interacted with promotoras  
Post-test only with comparison group

Do community members who have interacted with a promotora have more knowledge of local reproductive health services available than community members who have not interacted with a promotora?  
Sample of community members who have interacted with promotoras and of community members who have not interacted with promotoras  
Post test only with comparison group

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Long-Term (Community-Level) Objective 2: By 2012 improve self-efficacy among 500 Latino parents to discuss sexual and reproductive health with their children.

<table>
<thead>
<tr>
<th>Evaluation Questions</th>
<th>Participant(s)</th>
<th>Evaluation Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>With how many parents in the community did each promotora discuss talking to kids about sex?</td>
<td>Promotoras</td>
<td>Survey</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Log</td>
</tr>
<tr>
<td>Was information provided by promotoras about how to talk to kids about sex helpful to parents in the community?</td>
<td>Sample of community members who have interacted with a promotora</td>
<td>Survey</td>
</tr>
<tr>
<td>Did parents who interacted with promotoras feel that their comfort and ability to talk to kids about sex improved after talking to a promotora?</td>
<td>Sample of community members who have interacted with a promotora</td>
<td>Survey</td>
</tr>
</tbody>
</table>
What additional information or skills to parents in the community need to talk to kids about sex?

Is self-efficacy and intent to talk to kids about sex higher among parents who have interacted with promotoras than among parents who have not interacted with promotoras?

<table>
<thead>
<tr>
<th>Evaluation Questions</th>
<th>Participant(s)</th>
<th>Evaluation Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>With how many community members did each promotora discuss use of condoms or other contraceptives?</td>
<td>Promotoras</td>
<td>Survey Log</td>
</tr>
<tr>
<td>Did community members who had interacted with promotoras change their use of condoms or other contraceptives?</td>
<td>Sample of community members who have interacted with a promotora</td>
<td>Survey</td>
</tr>
<tr>
<td>Is self-efficacy to use condoms and other contraceptives higher among community members who have interacted with promotoras higher than among community members who have not interacted with promotoras?</td>
<td>Sample of community members who have interacted with promotoras and of community members who have not interacted with promotoras</td>
<td>Post test only with comparison group</td>
</tr>
<tr>
<td>Is intent to use condoms and other contraceptives higher among community members who have interacted with promotoras higher than among community members who have not interacted with promotoras?</td>
<td>Sample of community members who have interacted with promotoras and of community members who have not interacted with promotoras</td>
<td>Post test only with comparison group</td>
</tr>
<tr>
<td>Is condom and · Sample of community</td>
<td>Post test only with</td>
<td></td>
</tr>
</tbody>
</table>
contraceptive use higher among community members who have interacted with promotoras higher than among community members who have not interacted with promotoras?

| members who have interacted with promotoras and of community members who have not interacted with promotoras | comparison group |

Dissemination Plan

Since the Líderes de Salud Reproductiva program involves interactions between numerous stakeholders as well as evaluation at different points in time, several methods of dissemination will be employed. The results from the program coordinator interview and trainer surveys and tests will be summarized in a report which will be distributed to the Program Coordinator and the Director of Health Programs at El Pueblo. Similarly, one year later, when trainers complete follow-up surveys, they will be analyzed and summarized in a brief report for the Program Director and Director of Health Programs as well.

After the promotora trainings, each trainer will return the promotora surveys and pre and post tests to the evaluation team for analysis. Results from this analysis will be examined all together as well as stratified by site in order to provide specific feedback to each trainer. The evaluator will first review these results with the Program Coordinator and together they will develop recommendations for the trainers. Then a report including both results and recommendations will be distributed to the trainers.

Approximately 1 year later (2 years after the initial train-the-trainer program), surveys and post-tests will be collected from the promotoras and community members. These data will be analyzed by the evaluation team and then shared with the Program Coordinator. Together, the evaluator and Program Coordinator will develop a comprehensive report as well as a powerpoint
presentation summarizing results and recommendations. This report will then be distributed to all stakeholders: the Director of Health Programs at El Pueblo, the trainers, the promotoras, and the funding organization. Additionally, a meeting will be held for all stakeholders at which the Program Coordinator will present the powerpoint presentation and answer questions. Ideally, this comprehensive report and presentation will guide program quality improvement at all levels.

Discussion

Implementation of this program plan and evaluation plan will allow El Pueblo to expand the reach of the Líderes de Salud Reproductiva program to improve the reproductive health of the Latino population in Durham, Orange, Chatham, and Wake Counties. In achieving this goal, the program will also work to decrease significant health disparities in STIs as well as in teen pregnancies and unintended pregnancies between the Latino population and the non-Hispanic White population, which is a major priority both of the state of North Carolina and the nation. The Líderes de Salud reproductive program has several major strengths that will help it to achieve this public health benefit. First, it utilizes the LHA model by training trainers to then train promotoras de salud. Because the promotoras are community members, they will understand the needs as well as the strengths of the community and will be able to deliver information and assistance in a culturally appropriate manner as "natural helpers." While LHA interventions in Latino communities have been extensively used, strong evidence of their effectiveness in the literature is lacking. Evaluation of this program will ideally add to the body of evidence on this subject. The evaluation plan that is built into this program plan is another major strength of the program. Both qualitative and quantitative methods of evaluation will be utilized at each level of the program including curriculum adaptation, train-the-trainer
sessions, promotoras trainings, and promotoras interactions with community members. Therefore, it will be possible to assess the effectiveness of each component of the larger program and thus to appropriately target quality improvement measures.

One major limitation of the Líderes de Salud Reproductiva program is that it is not based on a formal needs assessment. Several promotoras from the original Líderes de Salud program expressed the need for information on reproductive health and helped to design the curriculum; however it is difficult to know if their views represent those of the community as a whole. Additionally, while we plan to partner with local organizations to implement the train-the-trainer phase of this program, no initial assessment of local organizations was conducted to gauge interest and priorities. Perhaps, in retrospect, it would have been prudent to follow the example of the Plain Talk/Hablando Claro program and begin with “community mapping” to survey community members and local organizations before developing the program. Another limitation of this program is that the evaluation only allows for documentation of intermediate outcomes of changes in knowledge and self-efficacy as well as one measure of behavior change. Measuring the program’s effects on health outcomes is not possible because of the temporal distance of these outcomes from the intervention, the many possible confounding factors at play, and the limited data available on STI and unintended pregnancy rates by county and ethnicity. A final limitation is that this program mainly works at the individual and interpersonal levels of the social ecologic framework (SEF). Individual knowledge, self-efficacy, and behaviors are targeted, and interactions between trainers and promotoras, between promotoras and community members, and between adults and children are facilitated. However, the program does not address community level or systems level factors that likely contribute significantly to documented disparities in reproductive health outcomes.
These limitations suggest needed future research. One important research question would be what systemic and policy level factors underlie the reproductive health disparities affecting Latino immigrants in North Carolina. If this question could be answered, possibly through community-based participatory research, then a program targeting these factors on the outer levels of the SEF could be developed to supplement the Líderes de Salud Reproductiva program’s work on the individual and interpersonal levels.

Therefore, despite its limitations, the Líderes de Salud Reproductiva program has the potential to be an important component of a larger multi-level effort to decrease health disparities affecting NC’s Latino population. Implementation of the Líderes de Salud Reproductiva program according to this program plan and continuous quality improvement facilitated by the evaluation plan are the first steps towards this important goal.
REFERENCES


