

## **On the Front Lines of Prevention: *Promotores de Salud* and Their Role in Improving Primary Care for Latina Women, Families, and Communities**

Jody O. Early, *University of Washington Bothell*

Sloane Burke-Winkelmann, *California State University Northridge*

Aditi Joshi, *University of California Los Angeles*

### **Abstract**

Thousands of studies have documented the history and effectiveness of community health workers (CHWs) and their evolving role in population health over the last several decades. However, few published literature reviews have focused on the contributions of Latina/o CHWs (e.g., promotores) in developing countries and in underresourced communities within the United States. This article presents a review of the scholarly literature published in the last decade (2005–2015) and provides a snapshot of characteristics and factors that affect the important role of promotores as trusted liaisons and contributors to prevention and primary care. After filtering articles by inclusion criteria, we reviewed the final sample of 63 articles. Eight categories emerged from the literature: (1) factors that motivate individuals to become promotora/es, (2) descriptive characteristics of promotores and their settings for practice, (3) health issues most commonly addressed by promotores, (4) the effectiveness of programs involving promotores and lay health models, (5) the effect of lay health work on self-efficacy, (6) the role of promotores in community health advocacy, (7) occupational challenges and potential barriers to practice, and (8) best practices for training and supporting promotores as contributors to community health and health care systems. This review presents evidence that promotores, in their varied responsibilities and settings, are essential partners to improving health outcomes for Latina women, their families, and communities.

**Jody Early** is an associate professor in the School of Nursing and Health Studies at the University of Washington Bothell. **Sloane Burke-Winkelmann** is a professor in the Department of Health Sciences at California State University Northridge. **Aditi Joshi** is a researcher in the School of Medicine at UCLA. Please send author correspondence to [jearly3@uw.edu](mailto:jearly3@uw.edu).

*Acknowledgments and Funding Resources.* The authors wish to thank promotores everywhere for their tireless efforts and willingness to serve as champions for health within their communities. Special thanks to Sophia Beltran and Sandra Solano Huber for their exemplar leadership as leaders of promotores; their love for others and tireless commitment to social justice provided inspiration for this article.

## Keywords

*community health worker; promotores; Promotoras de Salud; lay health worker; primary care*

Women around the globe, in developing countries and low income areas of developed countries, face challenges accessing basic health care and primary prevention. In 1970, the World Health Organization (WHO) in response to the failure of the Malaria Eradication Campaign challenged Western medicine's emphasis on tertiary care, especially for those in resource-poor areas. In the Alma Ata Declaration of 1978, the WHO (2007) emphasized that the delivery of medical care was only a limited part of improving individual and population health. Vertical (e.g., top-down) ideologies soon gave way to a focus on primary prevention involving community and grassroots approaches and focusing on strengthening individual and community capacity. Historically, this paradigm shift led to the formation of many lay health worker (LHW) programs in low income regions of the world, such as the "barefoot doctors" in China and *Promotores de Salud* in Latin America and Latino communities in other parts of the world.

Lay health workers are known by many names throughout the world, including (but not limited to) *community health worker* (CHW), *Promotores de Salud* (Spanish for promoters of health), *promotora* (Latina female health promoter) or *promotor* (Latino male health promoter) or *promotores* (Spanish gender-neutral term for health advisors), *health advisor*, *health promoter*, *village health worker*, *peer advocate*, and *patient navigator*. The diversity of terms reflects the different typologies and settings for lay health workers. Some are volunteers and others are paid, some work in rural settings and others work in urban communities, and some are focused solely on navigating individuals to (and through) hospital systems and health care and others have a broader scope of practice, engaging in more community organization and advocacy work (WHO, 2007). One of the most common umbrella definitions for lay health workers, or CHWs, is defined by the WHO (2007) as someone who is "trained to carry out one or more functions to healthcare" (para. 3). However, a CHW is not a health expert such as a doctor, physician assistant, nurse, or allied health professional. A widely used description of CHWs by the WHO (2007) is as follows:

Community health workers should be members of the communities where they work; should be selected by their communities; should be answerable to the communities for their activities; should be supported by the health system but not necessarily a part of its organization; and should have shorter training than professional workers. (para. 4)

The American Public Health Association (2015) expands this definition by acknowledging the broad range of lay health worker responsibilities, outside of just health care, including health advocacy:

A community health worker also builds individual and community capacity by increasing health knowledge and self-sufficiency through a range of activities, such as outreach, community education, informal counseling, social support, and advocacy. (para. 2)

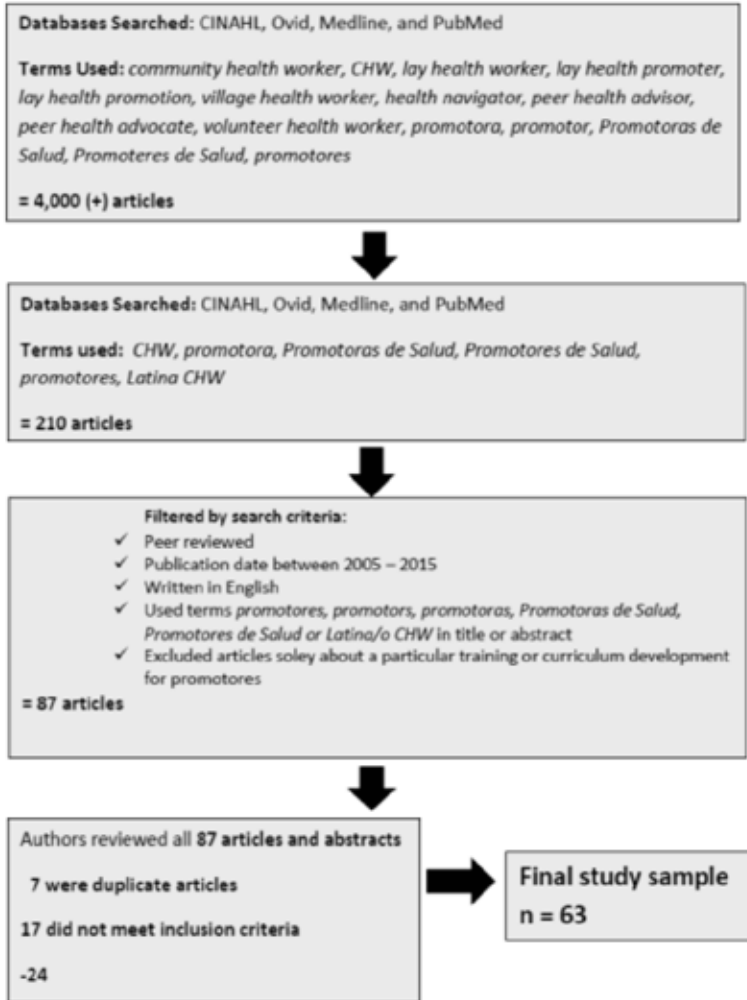
*Promotores* work primarily in Hispanic/Latino communities and are CHWs who are “respected and visible” and “share a common identity with the members of their community” (Hansen et al., 2005, p. 48). No matter the term used to describe them, lay health promoters play a role in primary care, community health, and advocacy that is similar from country to country. CHWs have proven to be vital contributors to global and population health and are important liaisons between health systems and communities (WHO, 2007). They are often women who are trusted members of their communities and who provide culturally relevant health education and outreach to an array of audiences, but especially to underserved and/or marginalized groups.

The history of lay health workers spans decades and includes a vast body of research. A search by the authors for articles relative to lay health workers and CHWs in CINAHL, Ovid, PubMed, and Medline retrieved more than 4,000 articles published just within the last 3 decades (Figure 1). However, little is systematically documented in the literature about *promotores* specifically and their contributions to primary care for women and their families in Latin communities. Therefore, the purpose of the critical review of literature is to provide a descriptive snapshot of *promotores*, to examine factors that draw them to their role and affect their practice, and to explore the effect of *promotora* work not only on individuals and communities, but also on themselves.

## Method

We used methods similar to those presented in the *Cochran Handbook for Systematic Reviews of Interventions* (Higgins & Green, 2011) to guide the literature search and to refine the selection of the sample. Although this article is *not* a systematic review, we include empirical and nonempirical articles. The *Cochran Handbook* provided helpful insight on determining search terms, choosing databases and eligibility criteria, and filtering the sample.

We examined literature relating to the work and role of *promotores* using four research databases: CINAHL, PubMed, Ovid, and Medline. The search terms used were *Promotoras de Salud*, *Promotores de Salud*, *promotoras*, *promotor*, *promotores*, and *Latina Community Health Worker (CHW)*. Articles in the sample were limited to peer-reviewed works available in full text within the databases searched online or retrieved through interlibrary loan. Most often,



**Figure 1.** Flow diagram of review process for identifying articles that met inclusion criteria.

the term *CHW* was synonymous with those search terms, but only articles that used the term *CHW* to describe Latina/o CHWs or promotores were included in the sample. Search terms were explicitly mentioned in the article abstract and/or title. From this initial search, 210 articles were retrieved. The articles in this original sample were filtered further to include peer-reviewed articles that included empirical research and systematic reviews written in English and published within the last decade (2005–2015). We included studies in which promotores provided services to women and their families and promotores' involvement with cardiac disease prevention programs.

After articles were extracted outside of the search criteria (Figure 1), the sample was reduced to 87 articles. The sample was further distilled to exclude 24 articles that solely focused on the curriculum development process for promotores (e.g., selecting materials, pilot testing), although this is definitely a topic worthy of another literature review. This narrowed the final sample to 63 (see Figure 1).

## Results

Through an examination of the literature in the study sample ( $n = 63$ ), eight categories emerged relating to promotores and lay health promotion: (1) factors that motivate individuals to become promotores, (2) descriptive characteristics of promotores and their settings for practice, (3) health issues most commonly addressed by promotores, (4) the effectiveness of programs involving promotores and lay health models, (5) the effect of lay health promotion on the self-efficacy of participants as well as promotores, (6) the role of promotores in community health advocacy, (7) occupational challenges and barriers to practice, and (8) best practices for training and supporting promotores as contributors to primary health care.

### **Factors That Motivate Individuals to Become Promotoras/es**

Only a few published, peer-reviewed studies have explicitly examined motivating factors for becoming promotoras/es (Alfaro-Trujillo, Valles-Medina, & Vargas-Ojeda, 2012; Hansen et al., 2005; Ruano, Hernandez, Dahlblom, Hurtig, & Sebastian, 2012; Sherrill et al., 2005; Squires & O'Brien, 2012). Ramirez-Valles (1999) first provided a compelling historical overview of the CHW's role and its place within various societies. Ramirez-Valles cautioned that the history of promotoras as community volunteers could influence the relationship between promotores/CHWs and their employers (or host organizations) and replicate colonial and oppressive power relationships. Hansen et al. (2005) examined motivating factors of promotoras in Guatemala and found that many promotoras reported a desire to become a health professional. When funds for schooling were limited or nonexistent, or when proximity to a medical school posed a barrier, becoming a promotora was the next best option (Hansen et al., 2005). Or, as Squires and O'Brien (2012) found in their qualitative study, some promotoras were led to serve in the role because they had immigrated and could not practice their profession in their new country. Altruism, social recognition, and gaining additional knowledge on health-related issues were other motivating factors mentioned in the research (Alfaro-Trujillo et al., 2012; Hansen et al., 2005; Sherrill et al., 2005).

A number of studies indicated that promotores describe their work as a "service" to their community (Albarran, Heilemann, & Koniak-Griffin, 2014;

Alfaro-Trujillo et al., 2012; Ingram, Sabo, Rothers, Wennerstrom, & de Zapien, 2008; Keller et al., 2012; Reinschmidt et al., 2006; Sabo et al., 2013; Squires & O'Brien, 2012; St John, Johnson, Sharkey, Dean, & Arandia, 2013; Tran et al., 2014). The intrinsic reward that comes from serving in the role of a promotor/a and a deep desire to help others was a strong theme throughout the literature. Squires and O'Brien (2012) reported the initial reasons promotores gave for participating as a CHW: "It's an interesting project" and "Ayudar a los demos"—*to help others* (p. 463).

Additionally, promotores in the studies reviewed often expressed a desire to assume an active leadership role in their communities (Ruano et al., 2012) or to achieve social recognition (Glenton et al., 2013). Squires and O'Brien (2012) offered this perspective from a promotora in their study: "*I want more light in my life and to give this to others as well. To do something more*" (p. 463). Lucio et al. (2012) presented a case for including promotores as leaders in the research process. Promotores in the study were not merely a linguistic bridge and could help to frame the research and provide guidance on working with the community in the process. This, the authors noted, led to better data collection approaches and ultimately improved research (Lucio et al., 2012).

Financial compensation *did not* emerge as a repeated theme in the literature as a reason for becoming a promotor/a (Alfaro-Trujillo et al., 2012; Glenton et al., 2013; Ingram et al., 2008; Stacciarini et al., 2012; Wasserman et al., 2006). Alfaro-Trujillo et al. (2012) reported that the pay for most promotores was often in the form of travel reimbursement, food, medication, or cash. As mentioned earlier in this article, service and "wanting to help" were driving forces for seeking the role. However, this does not mean compensation was not a consideration at all. For example, in a 2012 study examining profiles, perceptions, and motivations of promotores working with NGOs on the U.S.–Mexico border, promotores reported that they had to reduce their involvement with NGOs and participation in lay health promotion activities "due to lack of economic compensation for their community participation" (Alfaro-Trujillo et al., 2012, p. 588). In the same study, the average monthly income for a CHW near Tijuana was \$400 USD. Promotores often work and volunteer with organizations that are operating with limited funding. Promotores may attrite or reduce their involvement in search of other sources of income (Alfaro-Trujillo et al., 2012). Furthermore, Ingram et al. (2008) found that promotores who were full-time employees outside of their promotor/a role and who received a stipend or who were paid hourly by an employer for nonrelated promotor/a work were more likely to express that their primary motivation for taking the role of the promotor/a was to give back to their communities (Ingram et al., 2008; Stacciarini et al., 2012; Wasserman et al., 2006). This finding was less likely among promotores who did not work full time or who served in economically marginalized communities where jobs were scarce.

Throughout the literature examined, there were opposing views on whether promotores should be viewed as “volunteers” or “health workers.” Some promotoras view the emerging “profession” of a CHW as a new opportunity for employment and empowerment, and others view the institutionalization of the CHW role as “altering the core elements that could help them develop quality relationships with members” (Arvey & Fernandez, 2012, p. 1636). Witmer et al. (as cited in Arvey & Fernandez, 2012) offered this view: “*Although such support can offer financial and other securities, it can also threaten what makes CHWs unique and effective*” (p. 1635).

The conflicting views about compensation are also evident in literature relating to the broader scope of CHWs, not just those working within Latin communities. For example, in a recent study by Swartz and Colvin (2015), CHWs in Khayelitsha (a township near Cape Town, South Africa) with high rates of poverty, unemployment, and ill health reported altruism as the primary factor driving their work. The intrinsic motivation to volunteer was often privileged within the community over the extrinsic (e.g., financial), which was seen by some in the community or other CHWs to be a “threat to moral principles” (Swartz & Colvin, 2015, p. 145). However, reasons for emphasis on the intrinsic are complex and rooted in issues of power, culture, social status, and gender; women are typically serving in CHW roles and may be portrayed in society as being less concerned with social status and economic reward (Swartz & Colvin, 2015).

In addition, the literature in the study sample also indicated that previous familiarity with promotores and their work was an additional motivating factor, especially when a person’s family member (e.g., mother, grandmother, aunt, uncle, or brother) had served in this role (Ingram et al., 2012; Ruano et al., 2012; Squires & O’Brien, 2012).

## **Characteristics of Promotores and Their Settings for Practice**

Most promotores, as reported in the literature, are from the communities they serve (Balcazar et al., 2006; Forster-Cox, Mangadu, Jacquez, & Corona, 2007; Glenton et al., 2013). They share language (Spanish primarily), ethnic and cultural backgrounds (e.g., Latino heritage), and sometimes occupational experiences (e.g., agricultural work). Many of the published studies relating to CHWs within Latino/Hispanic communities highlighted the work of *promotoras*, as the literature indicates that the majority of lay health workers in Latin and Spanish-speaking communities are females. However, studies related to male *promotors* are emerging (Arredondo et al., 2013; Brown, Malca, Zumaran, & Miranda, 2006; Morales, Rao, Livaudais, & Thompson, 2012). Brown et al. (2006), for example, explored the role of the CHW in rural Peru and found that most of the 171 CHWs were male (76%) and participated voluntarily. Reasons



given were related to culture and ascribed gender roles: A majority of the men believe that CHW training and necessary travel (for home visits) would take women away from their families at night (Brown et al., 2006). The CHW role in this study was also perceived as a leadership role that held esteem in the community. This was an outlying case example; however, most of the promotores in the studies reviewed were women over 35 with significant life experience and were respected in the communities they served. Younger promotoras (18–34) were most commonly involved with postpartum or substance abuse programs (Ingram et al., 2008).

Demographic information specifically on promotores globally is scattered and incomplete, but Ingram et al. (2012) published one of the first “profiles” of CHWs in the United States. In this study, the National Community Health Worker Advocacy Survey (NCHWAS) was used to collect descriptive benchmark data that would provide a general profile of CHWs in the United States. In the sample of 371 CHWs, 72.8% identified themselves as Hispanic/Latino. Most CHWs/promotores in the sample also reported that they primarily served Hispanic/Latino communities (85.1%) that closely matched CHW workforce estimates from the Bureau of Health Professions at 77.9% (Ingram et al., 2012). In this same study, Ingram et al. (2012) also found that the majority of CHWs/promotores in their sample worked with nonprofits, grassroots organizations, and community-based clinics (63.9%); reported more than a high school education (70%); were female (92 %); and addressed a range of health issues, with chronic disease, prevention, maternal/child health, and health access being some of the most common.

Arvey and Fernandez (2012) also reported that promotores work in a variety of settings. Promotores may work with community health agencies and departments, hospitals and clinics, community health centers, government, schools, nonprofits, churches, factories, and corporations. They work in and outside of formal institutions, often interacting with people within the community at people’s homes, churches, and work settings.

Most promotores in the studies included in this review ( $n = 63$ ) had at least some high school education, and a smaller number of studies reported samples that included promotores with additional certifications and degrees, such as a certified nurse assistant (Arcury, Marin, Snively, Hernandez-Pelletier, & Quandt, 2009; Forster-Cox, Mangadu, Jacquez, & Fullerton, 2010; Ingram et al., 2007; Livaudais et al., 2010; Reinschmidt et al., 2006; Ruano et al., 2012; Sherrill et al., 2005; Wasserman et al., 2006).

### **Health Issues Most Commonly Addressed by Promotores**

The range of health issues addressed by promotores can be classified into three broad categories: *chronic disease and injury prevention*, *disease management*, and *environmental health and occupational safety* (see Table 1).



**Table 1***Health Issues Addressed by Promotores/CHWs by Category and Theme*

<b>Category</b>	<b>Themes and examples</b>	<b>Sources</b>
Disease & Injury Prevention	Activities relating to prevention: creating awareness about a disease, providing education about prevention measures, encouraging screening, promoting healthy behaviors, providing referrals, and making home visits	Alfaro-Trujillo et al., 2012; Arredondo et al., 2013; Marsh et al., 2015
	Breast, cervical, and/or colorectal cancer prevention	Hansen et al., 2005; Larkey et al., 2006; Larkey et al., 2012; Livaudais et al., 2010; Marshall et al., 2014; Morales et al., 2012; Smith et al., 2013; Wasserman et al., 2006
	Promoting cardiovascular health	Albarran et al., 2014; Alfaro-Trujillo et al., 2012; Ayon, 2014; Koniak-Griffin et al., 2015; Ingram et al., 2012; Lewin et al., 2006
	Diet, nutrition, and obesity prevention	Baquero et al., 2009; Bustillos et al., 2013; Faucher, 2008; St John et al., 2013; Stacciarini et al., 2012; Tran et al., 2014
	Diabetes prevention	Cherrington et al., 2008; Ingram et al., 2007; Lujan et al., 2007; McEwen et al., 2010; Rothschild et al., 2014; Salant et al., 2013; Spinner & Alvarado, 2012
	HIV/AIDS and HPV prevention	Fernandez et al., 2009; Ingram et al., 2012; Ramos et al., 2009
	Maternal, reproductive, and sexual health	Betancourt et al., 2013; Blanco, 2011; Bonilla et al., 2012; Glenton et al., 2013; Ingram et al., 2012; Lewin et al., 2010; Prue et al., 2010
	Domestic violence prevention	Alfaro-Trujillo et al., 2012; Ingram et al., 2012
	Health screenings	Fernandez et al., 2009; Hansen et al., 2005; Ingram et al., 2012; Reinschmidt et al., 2006

	Asthma prevention & air quality	Ingram et al., 2012; Lucio et al., 2012
	Alcohol & substance abuse	Ayon et al., 2006; Ingram et al., 2008
	Mental health & stress management	Lucio et al., 2012; Stacciarini et al., 2012; Tran et al., 2014; Waitzkin et al., 2011
	Dental health	Ingram et al., 2012
Disease Management	Diabetes management	Balcazar et al., 2006; Faucher, 2008; Ingram et al., 2012; St John et al., 2013
	Cancer, including survivorship & co-survivorship	Borges & Ostwald, 2008; Cherrington et al., 2008; Hansen et al., 2005; Ingram et al., 2012; Koniak-Griffin et al., 2015; Larkey, 2006; Lujan et al., 2007; Marshall et al., 2014
Environmental Health	Walking trails & parks	Albarran et al., 2014
	Pesticide exposure & pesticide safety	Betancourt et al., 2013; Forster-Cox et al., 2007
	Disaster planning & preparedness	Eisenman et al., 2009

**Disease and injury prevention.** Promotores conduct a range of activities to reduce the burden of disease and injury within communities. They create awareness about a particular disease, educate the community about prevention measures, encourage screening, and promote healthy behaviors. Promotores also provide referrals and connect individuals to local social services, including access to health care, food, counseling, and job training.

As Table 1 also indicates, promotores promote health in a number of ways, but the most common activities pertaining to prevention were providing health education, distributing health information, organizing events, referring people to community resources, and making home visits (Alfaro-Trujillo et al., 2012; Arredondo et al., 2013; Marsh, Derose, Rios, & Cohen, 2015)

The health topics pertaining to chronic disease and injury prevention most frequently addressed by promotores in the literature included breast, cervical, and/or colorectal cancer; cardiovascular health; diet, nutrition, and obesity prevention; diabetes; HIV/AIDS and HPV; maternal, reproductive, and sexual health; domestic violence; and health screenings. Additionally, multiple studies in the sample of literature addressed that promotora led programs for asthma and air quality, alcohol and substance abuse, mental health and stress management, and dental health.

**Disease management.** Studies included in the sample also revealed that promotores were sometimes tasked to help individuals manage chronic illnesses, such as diabetes and cancer. In addition, they may provide health information and resources for survivors as well as co-survivors (Table 1).

**Environmental health & occupational safety.** Researchers have also participated in programs that address environmental health and occupational safety. They have championed efforts to create better and safer built environments, such as walking trails and parks (Albarran et al., 2014), prevent pesticide exposure and teach pesticide safety (Betancourt, Colarossi, & Perez, 2013; Forster-Cox et al., 2007), and promote disaster planning and preparedness (Eisenman, Glik, Maranon, Gonzales, & Asch, 2009).

### **The Effectiveness of Programs Involving Promotores**

A number of published studies report positive outcomes for prevention programs involving promotores compared to control groups (Table 2). Researchers have reported positive results for increased awareness about particular health issues, improved disease management skills (e.g., monitoring blood sugar levels), and better retention within health education or rehabilitation programs (Albarran et al., 2014; Arcury et al., 2009; Baquero et al., 2009; Bustillos, John, Sharkey, & Castillo, 2013; Forster-Cox et al., 2010; Ramos et al., 2009; Waitzkin et al., 2011). Participants in programs led by or involving promotores reported increased knowledge and behavior change pertaining to physical activity (Arcury et al., 2009; Forster-Cox et al., 2010), depression (Albarran et al., 2014), nutrition and diet (Baquero et al., 2009; Bustillos et al., 2013), and maternal and child health (Albarran et al., 2014; Glenton et al., 2013; Lewin et al., 2010). What is still questionable, however, is whether CHW/promotor/a-led programs are better than other health education programs and prevention models; recent reviews have reported limited effects on health outcomes when comparing lay health models to other interventions (Viswanathan et al., 2009). Many published studies reported low sample sizes, lacked control groups, used cross-sectional methods, and used volunteer or convenience samples. Rigorous research designs are lacking. Regardless, there is still strong evidence to underscore promotores' effect on social measures, such as social support, self-efficacy, social connectedness, and trust, which are valid theoretical constructs of behavior change (Table 2).

**Table 2***Positive Outcomes Associated With Health Programs Involving Promotores*

<b>Health-related issue</b>	<b>Studies reporting positive outcomes</b>
Disease Prevention	Arcury et al., 2009; Balcazar et al., 2006; Borges, 2008; Fernandez et al., 2009; Forster-Cox et al., 2007; Ingram et al., 2007; Larkey et al., 2006; Lewin et al., 2010; Lujan et al., (2007); Ramos et al., 2009; Reinschmidt et al., 2006
Disease Management & Rehabilitation	Albarran et al., 2014; Arcury et al., 2009; Baquero et al., 2009; Bustillos et al., 2013; Forster-Cox et al., 2010; Ramos et al., 2009
Physical Activity	Arcury et al., 2009; Forster-Cox et al., 2010
Mental Health	Albarran et al., 2014; Stacciarini et al., 2013; Tran et al., 2014
Nutrition & Diet	Baquero et al., 2009; Bustillos et al., 2013; Faucher, 2008
Diabetes	Borges & Ostwald, 2008; Cherrington et al., 2008; Ingram et al., 2007; Lujan et al., 2007; McEwen et al., 2010; Salant et al., 2013
Addiction (e.g., tobacco, alcohol)	Ayon et al., 2006
Environmental Health	Arcury et al., 2009; Arredondo et al., 2013; Forster-Cox et al., 2007; Forster-Cox et al., 2010
Maternal and Child Health	Albarran et al., 2014; Blanco, 2011; Glenton et al., 2013; Lewin et al., 2010; Prue et al., 2010
Cardiovascular Disease Risk	Balcazar et al., 2006; Koniak-Griffin et al., 2015; Spinner & Alvarado, 2012
Breast & Cervical Cancer	Albarran et al., 2014; Fernandez et al., 2009; Hansen et al., 2005; Larkey, 2006; Larkey et al., 2012; Livaudais et al., 2010; Smith et al., 2013
Colorectal Cancer	Moralez et al., 2012; Smith et al., 2013
HIV Prevention	Ramos et al., 2009
Sexual Health	Betancourt et al., 2013; Bonilla et al., 2012
Literature Reviews Indicating Positive Outcomes	Lewin et al., 2006; Viswanathan et al., 2009

One of the few randomized control trials published (Koniak-Griffin et al., 2015) explored the effectiveness of a promotor/a-led lifestyle behavior program on cardiovascular disease risk factors (e.g., body mass index, waist circumference, blood pressure, lipids, and glucose) among low income adult Latina/os and provided strong evidence to support the hypothesis that prevention programs in Latino communities led by promotores are more effective than lifestyle programs without them. At the end of the 6-month intervention (that included eight classes followed by 4 months of individual coaching by promotores), those in the intervention group had more significant improvements in risk measures than those in the control group. In addition, those in the experimental (promotora-led) group had higher rates of attendance and participation than those in the control group. This study yielded important evidence to support lay health program models, specifically within Hispanic/Latino communities. Additional randomized control trials are warranted (see Table 2).

In both qualitative and quantitative studies, a key variable associated with positive outcomes was *social support*. Waitzkin et al. (2011) in a mixed method study explored the effectiveness of promotores as mental health promoters in primary care. Although the quantitative results of the study did not yield significant results, the authors noted that for many program participants the change in reported depressive behaviors was due to emotional bonding and the perceived social support received from promotores. Participants in the study reported that working with a promotor/a fostered companionship (*companerismo*), that the promotor/a was a *comadre* (friend), a *buena profesora* (good teacher), and a cultural mediator and/or a role model (Waitzkin et al., 2011). Additionally, multiple examples from the literature illustrate the positive effect of promotora-led interventions and increased social support on screening rates: Female participants opted for screening of a disease or condition after they were contacted by a promotora, specifically for screening relative to diseases such as cervical cancer (Albarran et al., 2014), colorectal cancer (Smith, Wilson, Orians, & Byrd, 2013), and HIV (Ramos et al., 2009). Although the focus of this particular review of literature is on the contributions of promotores to women's health, it is important to note that men, teens, seniors, and a variety of other populations have also benefited from programs involving promotores (Arvey, Fernandez, LaRue, & Bartholomew, 2012; Borges & Ostwald, 2008; Lewin et al., 2010). The evidence is clear that promotores and lay health promotion programs play an effective role in primary prevention for everyone.

### **The Effect of Promotor/a Work on Self-Efficacy**

Self-efficacy, a person's personal belief that he or she has the ability to accomplish or perform a particular task, influences a person's health decision making and is an important concept for planning health education and training for promotores (Keller et al., 2012). Multiple studies included in this review

indicated that serving as a lay health promoter increased individual self-efficacy as well as the self-efficacy of others. Promotores in the literature examined reported that their involvement in their communities and as lay health promoters strengthened their ability to make decisions about their own health (Ayon, 2014; Glenton et al., 2013; Kash, May, & Tai-Seale, 2007; Koniak-Griffen et al., 2015; Reinschmidt et al., 2006). Kash et al. (2007) also observed that promotores helped women in the study access health information and social services, and their efforts were especially beneficial to women whose travel was restricted or for those who could not go unaccompanied to see a health professional.

The positive outcome of increased self-efficacy is indicated in studies involving a variety of topics and audiences. In a study by Balcazar et al. (2006), lower income, middle-aged Mexican adults living near the Mexico–Texas border participated in a promotora-led cardiovascular health program called *Your Heart, Your Life*. Participants who worked with the Promotoras de Salud Contra la Hipertension (i.e., Community Health Workers Against Hypertension) for 9 weeks achieved improved measures of sodium, fat, and cholesterol and higher self-efficacy scores on performing heart healthy behaviors. In another study, Ayon, Pena, and Naddy (2006) explored promotora-led adolescent substance abuse prevention programs and found that by working with the promotoras (all who were mothers), Latino parents increased their knowledge of substance abuse and increased their ability to identify if their children exhibited signs of substance abuse.

Koniak-Griffin et al. (2015) found that involvement of promotoras as health coaches in a lifestyle and behavior intervention for low income Latina women living in Los Angeles (i.e., *Healthy Women Prepared for Life*) led to more positive outcomes and increased self-confidence among program participants. Participants in the intervention group also achieved improved measures on risk factors such as body mass index, weight, blood pressure, and glucose and had higher retention rates than those not matched with a promotora. There is also evidence that health promotion programs involving promotores improve participants' feelings of self-efficacy relating to breast and cervical cancer screening (Hansen et al., 2005; Larkey, 2006; Reinschmidt et al., 2006; Wasserman et al., 2006).

The work of being a promotor/a is often characterized in the literature as being transformative not only for the communities each serves, but also for each promotor/a (Alfaro-Trujillo et al., 2012; Hansen et al., 2005; Sherrill et al., 2005; Squires & O'Brien, 2012; Wiggins et al., 2009). In the process of promoting health in their communities, and in inspiring others to take control of their health, promotoras' self-efficacy may also be reinforced as reflected in the words of this promotora:

I am reminded we can make the decision to take control of our own lives, and above all, to feel happy as women, knowing that we are our own bosses. . . . You must take control of yourself . . . know your body, know your mind, know your soul, know you—as a human being and woman. (Squires & O'Brien, 2012, p. 464)

Otiniano, Carroll-Scott, Toy, and Wallace (2012) presented a case in which promotores participated in a research capacity building course relative to community assessment and then hosted their own workshop to train others on community assessment skills. Although there were a number of challenges for the promotores involved in the study, including the need for tailored training materials, the majority of the promotores reported a greater sense of self-confidence, improved presentation skills, and a better understanding of the community assessment process after participating in the pilot (see Figure 2).



**Figure 2.** Championing health for women and communities: Promotores de Salud of Familias Unidas in Snohomish County, Washington, celebrating after a breast health event. Photo by Sandra Solano-Huber. Used with permission.

## **The Role of Promotores in Community Health Advocacy**

A number of studies provide evidence that promotores can serve as powerful community health advocates and catalysts for individual and organizational



change. For example, Sabo et al. (2013) surveyed a U.S. sample of 371 CHWs (53% Latina/o) and found that over 75% of them were participating in advocacy, ranging from promoting change within their organizations (77%), to participating in civic efforts (57%), to engaging in political advocacy (46%). The authors also reported that more than half of the sample of CHWs in the study provided an advocacy story. For example, one CHW contributed the following:

*In the workplace, we worked hard for the last 5 years to prove the community health worker concept and benefits to having them in a clinical setting. In a clinical setting, we advocate for those who are underserved and uninsured. We are well received now, and are counted as part of the care delivery team.* (Sabo et al., 2013, p. e64)

Studies have also provided evidence that promotores can help build a community's capacity to improve environmental health and safety, especially in low resourced and impoverished border regions where communities are challenged with poor sanitation and daily exposure to environmental pollutants. Farquhar et al. (2008) conducted qualitative interviews with promotoras and reported that their work as CHWs helped to build their leadership skills and sense of efficacy to create change in their communities. Forster-Cox et al. (2010) demonstrated how promotoras living in *colonias* (rural, impoverished areas near the U.S.–Mexico border) led environmental safety assessments of homes, installed smoke detectors, and educated community members about home and safety issues. Similarly, Lucio et al. (2012) reported that promotoras in their study, also living in border *colonias*, took action to make positive changes to their households to improve indoor air quality after undergoing an asthma and healthy homes training. In a study by Forster-Cox et al. (2007), promotoras provided education to Latino immigrant families on the Texas–Mexico border to reduce pesticide exposure.

As reflected in the literature, there is a gradual shift in focus over time among promotores from the individual to the family and then to the larger community. Alfaro-Trujillo et al. (2012) examined characteristics of promotores serving communities on the Texas–Mexico border and, through mixed methods, observed a “transformation” and shift away from their initial focus on individual and family health to concerns for the larger community. Strengthening promotores' collective efficacy (i.e., ability to achieve a task or goal as a group), in addition to self-efficacy, can improve lay health workers' ability to initiate change within their communities.

For example, Farquhar et al. (2008) found that using a community-engaged (e.g., popular education) approach to health promotion increased the number of promotores who participated at community events, the number holding leadership positions, and promotores' sense of community solidarity. Many of the studies examined in this review of literature underscored the value promo-

tores and CHWs place on advocacy and the value of their civic and community involvement. However, advocacy was also mentioned as an area in which more promotores felt they lacked sufficient training (Alvillar, Quinlan, Rush, & Dudley, 2011; Ingram et al., 2012; Ingram et al., 2008).

It is also important to recognize that because of the differing roles and settings for promotores, advocacy is not always a requirement of their practice. This also highlights the need, globally, to identify “core elements” of effective training programs that seek to improve not only health and wellness of individuals and populations, but also health equity within communities (Arvey & Fernandez, 2012).

### **Occupational Challenges and Potential Barriers to Practice**

Occupational stressors, such as long hours, unmanageable workload, physical demands, and poor organizational communication, can also serve as barriers to practice and affect satisfaction and retention among promotores. Henriques-Camelo (2012) explored work-related illnesses reported among Brazilian CHWs and found that long hours and exhaustion were often reported by Latina/o CHWs as physical side effects to their work. Spinner and Alvarado (2012) suggested that organizations that work with promotores have a clear program plan, with clear objectives and role assignments, to help balance work among team members and unify all involved toward a common goal. Regular “check-ins” between supervisors and promotores to adjust task assignments and workload as needed can also improve teamwork and reduce turnover.

Poor communication within organizations can also lead to increased stress and frustration among promotoras (Alvillar et al., 2011). When the role of promotores is unclear to them or to other staff members on the team, this can spark conflict. Maintaining open communication about the assigned responsibilities of the promotores and having regular check-ins can help to reduce the miscommunication and confusion. Also, facilitating and encouraging communication among promotores will help build social connectedness and aid with keeping everyone informed. Some organizations have developed professional networks and use multiple channels of communication, such as social media (e.g. Facebook), e-mail lists, and/or text messaging, to keep communication flowing (Alvillar, et al., 2011).

Studies have increasingly advocated for financial and managerial support for lay promotor/a-led health promotion programs (Lewin et al., 2010; Otiniano et al., 2012). Promotores working in low resourced and vulnerable communities often come from those same communities, hence providing suitable means for transport, such as a bicycle, bus pass, or reimbursement for gas and equipment (e.g., helmet, flip charts, gloves), is essential for their success. In addition, promotoras have noted that their work often leads to physical fatigue (Glenton et al., 2013) and that their work environment may be confined to

areas such as garages and churches or they may have no dedicated space at all (Ruano et al., 2012). Improved logistical support can reduce physical fatigue, feelings of overload, inefficiencies that lead to frustration, and turnover.

As mentioned earlier, lack of financial incentives may understandably lead to attrition and burnout. Although studies show that altruism is the most common reason promotores give for working with communities, providing financial incentives helps to retain promotores (Albarran et al., 2014; Bonilla, Morrison, Norsigian, & Rosero, 2012; Moralez et al., 2012).

Bonilla et al. (2012) reported that providing certification and financial compensation enhanced retention of promotores. Promotores in this same study reported that completing a certification program generates strong feelings of self-worth (Bonilla et al., 2012). In some training programs, promotores were paid through a third party, such as Medicaid (Albarran et al., 2014), and had opportunities for paid employment, which improved retention.

In addition to needing financial and logistical support, promotores may also lack teaching tools and resources that best serve their audience. For instance, in a study that addressed the effectiveness of a lifestyle behavior intervention emphasizing physical activity, promotores and participants were provided with pedometers (Kash et al., 2007). In another study, promotores leading a physical activity program for postpartum women needed equipment, such as strollers, to increase participation (Albarran et al., 2014).

Despite the barriers mentioned in the literature, most promotor/a-led programs in the literature reported positive outcomes for the populations they served. It could be surmised that this is tied to promotores' commonly reported intrinsic commitment to community and to the people they serve. However, there is a need to further explore the needs and occupational stressors promotores experience, their ideas about career advancement, and organizational and work-related factors that reduce burnout. When promotores are well cared for by organizations and systems, they can extend better care to individuals and to the communities they serve.

## **Training and Supporting Promotores as Contributors to Primary Health Care**

At the time of this literature review, except for the Indian Health Service's training for Community Health Representatives there were no standardized global training programs or certifications for promotores, which was also noted by Larkey et al. (2012) and Moralez et al. (2012). Training for promotores can vary not only from country to country, but also from province to province or state to state. For example, in the United States, training in California to become a CHW differs from state requirements in North Carolina; requirements for a lay health worker in Brazil differ from those in Cuba. One challenge in developing a standardized curriculum for CHWs is that each community's

needs are different. Thus, trainings may differ from program to program and by region. Promotores who work in rural settings may receive more on-the-job training from an experienced promotora or by the program coordinator who mentors and supervises the promotores than by way of more formal educational pathways. The training curriculum may be created from existing resources or what is believed to be best practices (Rural Health Information Hub, 2011).

A person does not necessarily need to have professional certification to practice as a promotora or a promotor. However, a strong theme throughout much of the literature is that training, coaching, and ongoing mentoring from other health professionals and/or experienced promotores are key ingredients for program success and retention of promotores (Murray & Ziegler, 2015). Providing CHW certification opportunities for promotores was found to enhance their retention in lay health promotion programs (Arvey et al., 2012). Ingram et al. (2008) recommended that promotores be provided with basic outreach training as well as ongoing professional development, leadership training, and advocacy skill building.

Additionally, lay health worker training materials must be suited to match the language, culture, and reading level of promotores. Instead of medical books, training through hands-on exercises, interactive discussion, role-play, or informal one-on-one training are effective alternatives (Wasserman et al., 2006). Ayon (2014) underscored the need for providing training materials in Spanish as well as in English, for including vibrant colors and culturally appropriate images in the design, and for materials to be written at a reading level of 10th grade or lower. The training material must be culturally sensitive to the community being served (Cherrington et al., 2008). Hi-tech training material (e.g., mobile apps) may be appropriate for some educational strategies and audiences, but Koskan, Friedman, Brandt, Walsemann, and Messias (2013) found that low-tech materials, such as flip charts, are still commonly used among promotoras so they can control the pace of training and work in most rural and low income communities.

Furthermore, there is evidence in the literature that promotores are also seeking professional development opportunities beyond CHW certification. Health-related and culturally tailored trainings were identified to be of the highest need (Alfaro-Trujillo et al., 2012; Alvillar et al., 2011; Ingram et al., 2008). In addition, promotores may require training about confidentiality because their clients may be sharing sensitive and personal information (Reinschmidt et al., 2006).

Additionally, creating opportunities for interprofessional education as part of certification programs, or CHW trainings in partnership with medical schools, hospitals, clinics, and community health centers, will help to enhance the integration of promotores into team-based primary care models in areas of the world where this is emerging. This approach will also enable other health

professionals to gain more understanding about the importance that CHWs/promotores play in primary care. A study was conducted in Brazil of people served by a promotora program for which the promotora provided primary health care along with health awareness. A baseline survey was conducted in the study, followed by a follow-up survey after 2 years of promotora services. The results indicated that the rating for the survey item “overall performance of the CHW was satisfactory to maintain your health and your family’s health” increased significantly (Kawasaki et al., 2015). This study underscores the promise of health care delivery models that include promotoras as contributors to primary care.

### **Limitations**

This review of the literature was limited by multiple factors. A primary weakness is that only articles published in English were included. This likely accounts for why so many more U.S.-based studies were in the final sample. Future reviews should focus on the research published in Spanish and in English and disseminate the findings in both languages to broaden the audience and contribute to the body of scholarly literature. Also, this review is cross-sectional, focusing on studies published only in the last decade (2005–2015). The findings of this review are further limited by the subjective search terms and databases used in the inclusion criteria (Figure 1). Articles in the sample were also limited to peer-reviewed works that were available in full text within the databases searched or retrieved through interlibrary loan. Thus, the final sample is not representative of all published works relative to promotores.

### **Conclusion**

Lay health workers have served on the front lines of prevention for decades. A number of studies have documented the history of CHWs and their evolving role in population health. However, this article focused specifically on the contributions of promotores and their contributions to improving the health of Latina women, their families, and their communities. As reflected in the literature, there is ample evidence to support the claim that lay health models that include promotores can achieve positive results. Preventive education and early screenings improve health outcomes, expenditures, and quality of life, and educating women about these issues creates a huge ripple effect within their families and communities. As the famous adage goes, “If you educate a man, you educate an individual. If you educate a woman, you educate a nation” (Anzia, 2007). Hence, promotores increase social capital within Latino communities. Eng and Young (1992) wrote, “Lay health workers are a source of health that is internal to a community” (p. 28). Trust, cultural congruence, gender, and perceived social support are important factors when designing health programs and services, and promotores play a key role in addressing them.

Efforts to clarify the role of promotores and CHWs continue and issues, such as including standardization of training and certification, continue to be debated on a global scale. Are promotores navigators to health systems and services? Are they role models and facilitators? Health advocates and activists? A mix of these? And is a one-size-fits-all approach to training and certification appropriate? Future studies should explore the effect of “institutionalizing” the role of promotores and CHWs into formal health systems in places where this has already occurred (e.g., Brazil). Health reform in countries such as the United States is pushing prevention to the forefront. How does the integration of lay health workers as members of a primary care team “disrupt” existing models of medical education and social services training? What are the benefits and negative effects of transforming a “lay” (and historically voluntary) role into one that may be deemed “professional” and “legitimate” by institutions that are often run by the dominant majority? Many questions still remain, but one thing is clear: improving the health of Latina women and their families and communities calls for an increased focus on preventive care, primary care, cultural humility, and an expanded team-based approach of which promotores are essential partners.

## References

- Albarran, C. R., Heilemann, M. V., & Koniak-Griffin, D. (2014). Promotoras as facilitators of change: Latinas' perspectives after participating in a lifestyle behaviour intervention program. *Journal of Advanced Nursing*, *70*, 2303–2313. <http://dx.doi.org/10.1111/jan.12383>
- Alfaro-Trujillo, B., Valles-Medina, A. M., & Vargas-Ojeda, A. C. (2012). Profiles, perceptions, and motivations of community health workers of NGOs in a border city of US–Mexico. *Journal of Community Health*, *37*, 583–590. <http://dx.doi.org/10.1007/s10900-011-9486-z>
- Alvillar, M., Quinlan, J., Rush, C. H., & Dudley, D. J. (2011). Recommendations for developing and sustaining community health workers. *Journal of Health Care for the Poor and Underserved*, *22*, 745–750. <http://dx.doi.org/10.1353/hpu.2011.0073S1548686911300034>
- American Public Health Association. (2015). Community health workers. Retrieved from <https://www.apha.org/apha-communities/member-sections/community-health-workers>
- Anzia, L. (2007, August 28). Educate a woman, you educate a nation: South Africa aims to improve its education for girls. Retrieved from <http://womennewsnetwork.net/2007/08/28/educate-a-woman-you-educate-a-nation-south-africa-aims-to-improve-its-education-for-girls/>
- Arcury, T. A., Marin, A., Snively, B. M., Hernandez-Pelletier, M., & Quandt, S. A. (2009). Reducing farmworker residential pesticide exposure: Evaluation of a lay health advisor intervention. *Health Promotion Practice*, *10*, 447–455. <http://dx.doi.org/10.1177/1524839907301409>

- Arredondo, E., Mueller, K., Mejia, E., Rovira-Oswalder, T., Richardson, D., & Hoos, T. (2013). Advocating for environmental changes to increase access to parks: Engaging promotoras and youth leaders. *Health Promotion Practice, 14*, 759–766. <http://dx.doi.org/10.1177/1524839912473303>
- Arvey, S. R., & Fernandez, M. E. (2012). Identifying core elements of effective community health worker programs: A research agenda. *American Journal of Public Health, 102*, 1633–1637.
- Arvey, S. R., Fernandez, M. E., LaRue, D. M., & Bartholomew, L. K. (2012). When promotoras and technology meet: A qualitative analysis of promotoras' use of small media to increase cancer screening among South Texas Latinos. *Health Education & Behavior, 39*, 352–363.
- Ayon, C. (2014). Service needs among Latino immigrant families: Implications for social work practice. *Social Work, 59*, 13–23.
- Ayon, C., Pena, V., & Naddy, M. B. G. (2006). Promotoras' efforts to reduce alcohol use among Latino youths: Engaging Latino parents in prevention efforts. *Journal of Ethnic and Cultural Diversity in Social Work, 23*, 129–137.
- Balcazar, H., Alvarado, M., Hollen, M. L., Gonzalez-Cruz, Y., Hughes, O., Vazquez, E., & Lykens, K. (2006). Salud Para Su Corazon-NCLR: A comprehensive promotora outreach program to promote heart-healthy behaviors among Hispanics. *Health Promotion Practice, 7*, 68–77.
- Baquero, B., Ayala, G. X., Arredondo, E. M., Campbell, N. R., Slymen, D. J., Gallo, L., & Elder, J. P. (2009). Secretos de la Buena Vida: Processes of dietary change via a tailored nutrition communication intervention for Latinas. *Health Education Research, 24*, 855–866. <http://dx.doi.org/10.1093/her/cyp022cyp022>
- Betancourt, G. S., Colarossi, L., & Perez, A. (2013). Factors associated with sexual and reproductive health care by Mexican immigrant women in New York City: A mixed method study. *Journal of Immigrant and Minority Health, 15*, 326–333. <http://dx.doi.org/10.1007/s10903-012-9588-4>
- Blanco, C. E. (2011). Promotoras: A culturally sensitive intervention for Hispanic breastfeeding women. *Journal of Obstetric, Gynecologic, & Neonatal Nursing, 40*(Suppl. 1), S19.
- Bonilla, Z. E., Morrison, S. D., Norsigian, J., & Rosero, E. (2012). Reaching Latinas with Our Bodies, Ourselves and the Guia de Capacitacion para Promotoras de Salud: Health education for social change. *Journal of Midwifery & Women's Health, 57*, 178–183. <http://dx.doi.org/10.1111/j.1542-2011.2011.00137.x>
- Borges, W. (2008). The role of promotoras in diabetes self-management education: Research findings. *Southern Online Journal of Nursing Research, 8*(2). Retrieved from [http://www.resourcenter.net/images/SNRS/Files/SOJNR\\_articles2/Vol08Num02Main.html](http://www.resourcenter.net/images/SNRS/Files/SOJNR_articles2/Vol08Num02Main.html)



- Borges, W. J., & Ostwald, S. K. (2008). Improving foot self-care behaviors with Pies Sanos. *Western Journal of Nursing Research*, 30, 325–341. <http://dx.doi.org/10.1177/0193945907303104>
- Brown, A., Malca, R., Zumaran, A., & Miranda, J. J. (2006). On the front line of primary health care: The profile of community health workers in rural Quechua communities in Peru. *Human Resources for Health*, 4, 11. <http://dx.doi.org/10.1186/1478-4491-4-11>
- Bustillos, B., John, J. S., Sharkey, J., & Castillo, M. (2013). Promotora nutrition empowerment initiative: A culturally and linguistically-centered education program for Promotoras De Salud (community health workers) to foster community health education and outreach in Texas border colonias. *Journal of the Academy of Nutrition and Dietetics*, 113(9), A71.
- Cherrington, A., Ayala, G. X., Amick, H., Allison, J., Corbie-Smith, G., & Scarinci, I. (2008). Implementing the community health worker model within diabetes management: Challenges and lessons learned from programs across the United States. *The Diabetes Educator*, 34, 824–833. <http://dx.doi.org/10.1177/014572170832364334/5/824>
- Eisenman, D. P., Glik, D., Maranon, R., Gonzales, L., & Asch, S. (2009). Developing a disaster preparedness campaign targeting low-income Latino immigrants: Focus group results for project PREP. *Journal of Health Care for the Poor and Underserved*, 20, 330–345.
- Eng, E., & Young, R. (1992). Lay health advisors as community change agents. *Family & Community Health*, 15, 24–40.
- Farquhar, S., Wiggins, N., Michael, Y., Luhr, G., Jordan, J., & Lopez, A. (2008). “Sitting in different chairs:” Roles of the community health workers in the Poder es Salud/Power for Health project. *Education for Health: Change in Learning & Practice*, 21(2). Retrieved from <http://www.educationforhealth.net/showBackIssue.asp?issn=1357-6283;year=2008;volume=21;issue=2;month=July>
- Faucher, M. A. (2008). Promotoras de salud and portion control: A community intervention aimed at weight loss in low-income Mexican-American women. *Journal of Midwifery & Women's Health*, 53(5), 482.
- Fernandez, M. E., McCurdy, S. A., Arvey, S. R., Tyson, S. K., Morales-Campos, D., Flores, B., . . . Sanderson, M. (2009). HPV knowledge, attitudes, and cultural beliefs among Hispanic men and women living on the Texas–Mexico border. *Ethnicity & Health*, 14, 607–624. <http://dx.doi.org/10.1080/13557850903248621917310884>
- Forster-Cox, S. C., Mangadu, T., Jacquez, B., & Corona, A. (2007). The effectiveness of the promotora (community health worker) model of intervention for improving pesticide safety in US/Mexico border homes. *Californian Journal of Health Promotion*, 5, 62–75.

- Forster-Cox, S. C., Mangadu, T., Jacquez, B., & Fullerton, L. (2010). The environmental health/home safety education project: A successful and practical U.S.–Mexico border initiative. *Health Promotion Practice, 11*, 325–331. <http://dx.doi.org/10.1177/15248399093410261524839909341026>
- Glenton, C., Colvin, C. J., Carlsen, B., Swartz, A., Lewin, S., Noyes, J., & Rashidian, A. (2013). Barriers and facilitators to the implementation of lay health worker programmes to improve access to maternal and child health: Qualitative evidence synthesis. *Cochrane Database of Systematic Reviews, 2013*. <http://dx.doi.org/10.1002/14651858.CD010414.pub2>
- Hansen, L. K., Feigl, P., Modiano, M. R., Lopez, J. A., Escobedo Sluder, S., Moinpour, C. M., . . . Meyskens, F. L. (2005). An educational program to increase cervical and breast cancer screening in Hispanic women: A Southwest Oncology Group study. *Cancer Nursing, 28*, 47–53. <http://dx.doi.org/00002820-200501000-00007>
- Henriques Camelo, S. H. (2012). Work-related illness and health management strategies among community health workers. *Revista Enfermagem UERJ, 20*, 661–667.
- Higgins, J. P. T., & Green, S. (Eds.). (2011). *Chochrane handbook for systematic reviews of interventions* (Version 5). Retrieved from <http://handbook.cochrane.org/>
- Ingram, M., Reinschmidt, K. M., Schachter, K. A., Davidson, C. L., Sabo, S. J., De Zapien, J. G., & Carvajal, S. C. (2012). Establishing a professional profile of community health workers: Results from a national study of roles, activities, and training. *Journal of Community Health, 37*, 529–537. <http://dx.doi.org/10/1007/s10900-011-9475-2>
- Ingram, M., Sabo, S., Rothers, J., Wennerstrom, A., & de Zapien, J. G. (2008). Community health workers and community advocacy: Addressing health disparities. *Journal of Community Health, 33*, 417–424. <http://dx.doi.org/10.1007/s10900-008-9111-y>
- Ingram, M., Torres, E., Redondo, F., Bradford, G., Wang, C., & O’Toole, M. L. (2007). The impact of promotoras on social support and glycemic control among members of a farmworker community on the US–Mexico border. *The Diabetes Educator, 33*(Suppl. 6), 172S–178S. <http://dx.doi.org/10.1177/0145721707304170>
- Johnson, C. M., Sharkey, J. R., Dean, W. R., St John, J. A., & Castillo, M. (2013). Promotoras as research partners to engage health disparity communities. *Journal of the Academy of Nutrition and Dietetics, 113*, 638–642. <http://dx.doi.org/10.1016/j.jand.2012.11.014S2212-2672>
- Kash, B. A., May, M. L., & Tai-Seale, M. (2007). Community health worker training and certification programs in the United States: Findings from a national survey. *Health Policy, 80*(1), 32–42. [http://dx.doi.org/S0168-8510\(06\)00036-4](http://dx.doi.org/S0168-8510(06)00036-4)

- Kawasaki, R., Sadamori, T., Ferreira de Almeida, T., Akiyoshi, M., Nishihara, M., Yoshimura, T., & Ohnishi, M. (2015). Reactions of community members regarding community health workers' activities as a measure of the impact of a training program in Amazonas, Brazil. *Journal of Rural Emergency Medicine*, *10*(1), 7–19. <http://dx.doi.org/10.2185/jrm.28902890>
- Keller, C., Records, K., Coe, K., Ainsworth, B., Vega Lopez, S., Nagle-Williams, A., & Permana, P. (2012). Promotoras' roles in integrative validity and treatment fidelity efforts in randomized controlled trials. *Family & Community Health*, *35*, 120–129. <http://dx.doi.org/10.1097/FCH.0b013e31824650a6>
- Koniak-Griffin, D., Brecht, M. L., Takayanagi, S., Villegas, J., Melendrez, M., & Balcazar, H. (2015). A community health worker-led lifestyle behavior intervention for Latina (Hispanic) women: Feasibility and outcomes of a randomized controlled trial. *International Journal of Nursing Studies*, *52*, 75–87. <http://dx.doi.org/10.1016/j.ijnurstu.2014.09.0050020-7489>
- Koskan, A. M., Friedman, D. B., Brandt, H. M., Walsemann, K. M., & Messias, D. K. (2013). Preparing promotoras to deliver health programs for Hispanic communities: Training processes and curricula. *Health Promotion Practice*, *14*, 390–399. <http://dx.doi.org/10.1177/15248399124571761524839912457176>
- Kowitt, S. D., Emmerling, D., Fisher, E. B., & Tanasugarn, C. (2015). Community health workers as agents of health promotion: Analyzing Thailand's village health volunteer program. *Journal of Community Health*, *40*, 780–788. <http://dx.doi.org/10.1007/s10900-015-9999-y>
- Larkey, L. (2006). Las mujeres saludables: Reaching Latinas for breast, cervical, and colorectal cancer prevention and screening. *Journal of Community Health*, *31*, 69–77.
- Larkey, L. K., Herman, P. M., Roe, D. J., Garcia, F., Lopez, A. M., Gonzalez, J., . . . Saboda, K. (2012). A cancer screening intervention for underserved Latina women by lay educators. *Journal of Women's Health*, *21*, 557–566. <http://dx.doi.org/10.1089/jwh.2011.3087>
- Lawrance, L., & McLeroy, K. R. (1986). Self-efficacy and health education. *Journal of School Health*, *56*, 317–321.
- Lewin, S., Babigumira, S., Bosch-Capblanch, X., Aja, G., Van Wyk, B., Glenton, C., . . . Daniels, K. (2006). *Lay health workers in primary and community health care: A systematic review of trials*. Geneva, Switzerland: World Health Organization.
- Lewin, S., Munabi-Babigumira, S., Glenton, C., Daniels, K., Bosch-Capblanch, X., van Wyk, B. E., . . . Scheel, I. B. (2010). Lay health workers in primary and community health care for maternal and child health and the management of infectious diseases. *Cochrane Database of Systematic Reviews*, 2010. <http://dx.doi.org/10.1002/14651858.CD004015.pub3>

- Livaudais, J. C., Coronado, G. D., Espinoza, N., Islas, I., Ibarra, G., & Thompson, B. (2010). Educating Hispanic women about breast cancer prevention: Evaluation of a home-based promotora-led intervention. *Journal of Women's Health, 19*, 2049–2056. <http://dx.doi.org/10.1089/jwh.2009.1733>
- Lucio, R. L., Zuniga, G. C., Seol, Y. H., Garza, N., Mier, N., & Trevino, L. (2012). Incorporating what promotoras learn: Becoming role models to effect positive change. *Journal of Community Health, 37*, 1026–1031. <http://dx.doi.org/10.1007/s10900-011-9526-8>
- Lujan, J., Ostwald, S. K., & Ortiz, M. (2007). Promotora diabetes intervention for Mexican Americans. *The Diabetes Educator, 33*, 660–670. <http://dx.doi.org/33/4/660> 0.1177/0145721707304080
- Marsh, T., Derose, K. P., Rios, M., & Cohen, D. (2015). Promotoras as data collectors in a large study of physical activity in parks. *Health Promotion Practice, 16*, 354–361. <http://dx.doi.org/10.1177/1524839914563076> 1524839914563076
- Marshall, C. A., Curran, M. A., Koerner, S. S., Kroll, T., Hickman, A. C., & Garcia, F. (2014). Un Abrazo Para La Familia: An evidenced-based rehabilitation approach in providing cancer education to low-SES Hispanic co-survivors. *Journal of Cancer Education, 29*, 626–633. <http://dx.doi.org/10.1007/s13187-013-0593-7>
- McEwen, M. M., Pasvogel, A., Gallegos, G., & Barrera, L. (2010). Type 2 diabetes self-management social support intervention at the U.S.–Mexico border. *Public Health Nursing, 27*, 310–319. <http://dx.doi.org/10.1111/j.1525-1446.2010.00860.x> PHN860
- Morales, E. A., Rao, S. P., Livaudais, J. C., & Thompson, B. (2012). Improving knowledge and screening for colorectal cancer among Hispanics: Overcoming barriers through a PROMOTORA-led home-based educational intervention. *Journal of Cancer Education, 27*, 533–539. <http://dx.doi.org/10.1007/s13187-012-0357-9>
- Murray, M., & Ziegler, F. (2015). The narrative psychology of community health workers. *Journal of Health Psychology, 20*, 338–349. <http://dx.doi.org/10.1177/135910531456661520/3/338>
- Otiniano, A. D., Carroll-Scott, A., Toy, P., & Wallace, S. P. (2012). Supporting Latino communities' natural helpers: A case study of promotoras in a research capacity building course. *Journal of Immigrant and Minority Health, 14*, 657–663. <http://dx.doi.org/10.1007/s10903-011-9519-9>
- Pacheco, T. L., Ramirez, M. A., & Capitman, J. A. (2012). Policy barriers to health care access fuel discriminatory treatment: The role of Promotoras in overcoming malos tratos. *Journal of Ambulatory Care Management, 35*, 2–14. <http://dx.doi.org/10.1097/JAC.0b013e31822c8d66>

- Pleasant, A., & Kuruvilla, S. (2008). A tale of two health literacies: Public health and clinical approaches to health literacy. *Health Promotion International*, 23, 152–159. <http://dx.doi.org/10.1093/heapro/dan001dan001>
- Prue, C. E., Hamner, H. C., & Flores, A. L. (2010). Effects of folic acid awareness on knowledge and consumption for the prevention of birth defects among Hispanic women in several U.S. Communities. *Journal of Women's Health*, 19, 689–698. <http://dx.doi.org/10.1089/jwh.2009.1573>
- Ramirez-Valles, J. (1999). Changing women: The narrative construction of personal change through community health work among women in Mexico. *Health Education & Behavior*, 26(1), 25–42.
- Ramos, R. L., Green, N. L., & Shulman, L. C. (2009). Pasa la Voz: Using peer driven interventions to increase Latinas' access to and utilization of HIV prevention and testing services. *Journal of Health Care for the Poor and Underserved*, 20, 29–35. <http://dx.doi.org/10.1353/hpu.0.0124S1548686908100043>
- Reinschmidt, K. M., Hunter, J. B., Fernandez, M. L., Lacy-Martinez, C. R., Guernsey de Zapien, J., & Meister, J. (2006). Understanding the success of promotoras in increasing chronic diseases screening. *Journal of Health Care for the Poor and Underserved*, 17, 256–264. <http://dx.doi.org/10.1353/hpu.2006.0066>
- Rothschild, S., Martin, M., Swider, S., Lynas, C., Janssen, I., Avery, E., & Powell, L. (2014). Mexican American trial of community health workers: A randomized controlled trial of a community health worker intervention of Mexican-Americans with type 2 diabetes. *American Journal of Public Health*, 104, 1540–1548.
- Ruano, A. L., Hernandez, A., Dahlblom, K., Hurtig, A. K., & Sebastian, M. S. (2012). 'It's the sense of responsibility that keeps you going': Stories and experiences of participation from rural community health workers in Guatemala. *Archives of Public Health*, 70. <http://dx.doi.org/10.1186/0778-7367-70-18>
- Rural Health Information Hub. (2011). Community health workers' evidence based models toolbox. Retrieved from <https://www.ruralhealthinfo.org/community-health/community-health-workers/1>
- Sabo, S., Ingram, M., Reinschmidt, K. M., Schachter, K., Jacobs, L., Guernsey de Zapien, J., . . . Carvajal, S. (2013). Predictors and a framework for fostering community advocacy as a community health worker core function to eliminate health disparities. *American Journal of Public Health*, 103, e67–e73. <http://dx.doi.org/10.2105/AJPH.2012.301108>
- Salant, T., Slavin, S., Baumrin, E., Bordeu, M., Rowley, M., Brackett, E., . . . Behforouz, H. (2013). Lessons in translation: Insights from a collaboration integrating community health workers into diabetes care. *The Journal of Ambulatory Care Management*, 36, 156–165.

- Sherrill, W. W., Crew, L., Mayo, R. M., Mayo, W. F., Rogers, B. L., & Haynes, D. F. (2005). Educational and health services innovation to improve care for rural Hispanic communities in the US. *Journal of Remote and Rural Health*, 18, 356–367.
- Smith, J. L., Wilson, K. M., Orians, C. E., & Byrd, T. L. (2013). AMIGAS: Building a cervical cancer screening intervention for public health practice. *Journal of Women's Health*, 22, 718–723. <http://dx.doi.org/10.1089/jwh.2013.4467>
- Spinner, J. R., & Alvarado, M. (2012). Salud Para Su Carozon—A Latino promotora-led cardiovascular health education program. *Family & Community Health*, 35, 111–119.
- Squires, A., & O'Brien, M. (2012). Becoming a promotora: A transformative process for female community health workers. *Hispanic Journal of Behavioral Sciences*, 34, 457–473.
- St John, J. A., Johnson, C. M., Sharkey, J. R., Dean, W. R., & Arandia, G. (2013). Empowerment of promotoras as promotora: Researchers in the Comidas Saludables & Gente Sana en las Colonias del Sur de Tejas (Healthy Food and Healthy People in South Texas Colonias) program. *The Journal of Primary Prevention*, 34, 41–57. <http://dx.doi.org/10.1007/s10935-013-0296-1>
- Stacciarini, J. M., Rosa, A., Ortiz, M., Munari, D. B., Uicab, G., & Balam, M. (2012). Promotoras in mental health: A review of English, Spanish, and Portuguese literature. *Family & Community Health*, 35, 92–102.
- Swartz, A., & Colvin, C. J. (2015). 'It's in our veins': Caring natures and material motivations of community health workers in contexts of economic marginalisation. *Critical Public Health*, 25, 139–152.
- Tran, A. N., Ornelas, I. J., Perez, G., Green, M. A., Lyn, M., & Corbie-Smith, G. (2014). Evaluation of Amigas Latinas Motivando el Alma (ALMA): A pilot promotora intervention focused on stress and coping among immigrant Latinas. *Journal of Immigrant and Minority Health*, 16, 280–289. <http://dx.doi.org/10.1007/s10903-012-9735-y>
- Viswanathan, M., Kraschnewski, J., Nishikawa, B., Morgan, L. C., Thieda, P., Honeycutt, A., . . . Jonas, D. (2009). *Outcomes of community health worker interventions* (Evidence Reports/Technology Assessments No. 181). Retrieved from Agency for Healthcare Research and Quality website: <http://www.ahrq.gov/sites/default/files/wysiwyg/research/findings/evidence-based-reports/comhwork-evidence-report.pdf>
- Waitzkin, H., Getrich, C., Heying, S., Rodriguez, L., Parmar, A., Willging, C., . . . Santos, R. (2011). Promotoras as mental health practitioners in primary care: A multi-method study of an intervention to address contextual sources of depression. *Journal of Community Health*, 36, 316–331. <http://dx.doi.org/10.1007/s10900-010-9313-y>

- Wasserman, M. R., Bender, D. E., Lee, S. Y., Morrissey, J. P., Mouw, T., & Norton, E. C. (2006). Social support among Latina immigrant women: Bridge persons as mediators of cervical cancer screening. *Journal of Immigrant and Minority Health, 8*, 67–84.
- Wiggins, N., Johnson, D., Avila, M., Farquhar, S., Michael, Y., Rios, T., & Lopez, A. (2009). Using popular education for community empowerment: Perspectives of Community Health Workers in the Poder es Salud/Power for Health program. *Critical Public Health, 19*, 11–22.
- Witmer, A., Seifer, S. D., Finocchio, I., Leslie, J., & O’Neil, E. H. (1995). Community health workers: Integral members of the health care work force. *American Journal of Public Health, 85*, 1055–1058.
- World Health Organization. (2007). *Community health workers: What do we know about them? The state of the evidence on programmes, activities, costs and impact on health outcomes of using community health workers*. Geneva, Switzerland: Author.