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OUTREACH STRATEGIES FOR
IDENTIFYING AND ENROLLING WOMEN
INTO MATERNAL AND INFANT HEALTH
PROGRAMS:
A Summary of Promising Practices

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Please Note:

Recommendations provided in this report are based on available literature. Implementation of these recommendations may be restricted by your funding source, follow your funding agency's policies.

Introduction:

Maternal and Infant Health (MIH) programs are essential for improving health outcomes and reducing socio-economic disparities. To this end, it is vital that underserved women and families have access to such programs. Given their presence in the priority communities, community health workers (CHWs) and home visitors (HVs) are in a unique position to connect with women in need of services. CHWs and HVs are often seen as trustworthy and knowledgeable people within their community and have access to women and families that would benefit from enrolling in MIH programs.^{1,2} As such, the role of the CHW and HV cannot be underestimated in outreach and recruitment into MIH programs. Resources, specifically time and money, are limited and therefore there is a need to identify effective outreach strategies. Examining the role of CHWs and HVs in conducting outreach reveals a broad scope of information which is best presented using the Social Marketing Theory, adapted to a framework for identifying and enrolling participants.³ In adapting the Social Marketing Theory to outreach strategies for MIH programs, we extrapolated each of the five components to show specific outreach/recruitment modules (Table 1).

Table 1: Social Marketing Model and its Adaptation to Outreach Strategies

Social Marketing Theory (SMT) Components	SMT Outreach Components	Description
Defining and Identifying the Target Audience	Potential Participants	How are potential participants identified?
Developing the Product	Product	What types of materials are used for outreach?
Managing the Price	Price	What resources (financial or otherwise) are needed to conduct effective outreach?
Improving Accessibility	Place	Where are locations that are effective to conduct outreach at?
Promoting the Study	Promoting	What kind of message can be given regarding the program to effectively recruit participants?
Working with Partners	Working with Partners	What other organizations can be helpful in conducting outreach? What type of relationships are important to facilitate outreach?

This report provides current best practices and evidence for outreach techniques and specifically addresses the following:

- (1) What are effective and proven techniques to conduct outreach at specific life course stages to potential clients and how can these be implemented into current operating systems?
- (2) How can programs evaluate and strengthen the effectiveness of outreach efforts in their communities?

- (3) What successful strategies are used by home visiting agencies that have been successful in achieving and maintaining a full caseload?

Methods:

The objective was to identify articles addressing the role of community health workers and/or home visitors in outreach efforts for identifying and/or enrolling program participants. The inclusion criteria for selection of the literature (peer-reviewed and unpublished reports) to review included papers: focused on outreach to women of reproductive age and/or families; detailing strategies for outreach, identifying and/or enrolling participants, and recruitment and/or retention; set in the United States; written in the English language and within the past 10 years (2006-2016). The search engines used included PubMed, Google Scholar, and Google. Additional papers were identified through review of references from relevant sources. In light of the limited results, the search criteria were expanded to include relevant literature within the past 20 years and from other developed countries. Fifty-eight articles and reports were initially identified and 13 met the search criteria and were included in this report.

Results:

(1) What are effective and proven techniques to conduct outreach at specific life course stages to potential clients and how can these be implemented into current operating systems?

Although intuitively outreach strategies may need to differ for women at different life course stages, there is limited evidence describing the effectiveness of different strategies at these different stages. Using the Social Marketing Framework for identifying and/or enrolling participants, we have detailed the specific components of the framework and described the outreach techniques associated with each component (Table 2). While there is little evidence on how to implement effective and proven techniques for outreach into current operating systems, the literature suggests having a dedicated outreach worker/manager/team for each program.^{4,5} This information is also defined within Table 2.

The literature regarding CHW/HV outreach to women only provides some evidence for effective outreach strategies. Bill et al. specifically looked at identifying and enrolling low-income pregnant Latina women and their children (up to 2 years of age) into a *promotora* home visiting program.⁶ They found that using flyers and brochures in both English and Spanish (deemed culturally appropriate) had a positive impact on enrollment. They also used enrollment incentives (e.g., gift bags for mother and child) and attended community outreach events. No specific information is detailed regarding the event. Over the course of 10 years, 2,053 pregnant women were enrolled in the program. Of those, 70% were undocumented women, highlighting the trust the community had with the *promotoras*. The mean age of participants was 24.6 years old (range 13-44 years).

Bird et al. enrolled 306 Vietnamese-American women into a cervical cancer screening prevention trial.⁷ Participants were over the age of 18 and about half of the sample was between 18 to 39 years of age, about quarter of the sample was between 40 to 49 years of age with the remaining quarter over 50 years of age. CHWs were present at 2 health fairs and through these events, 200 participants enrolled for a blood pressure screening or a dental exam. CHWs tracked a total of approximately 1500 women that took prevention promotion material (Vietnamese-language) during the two health fairs. They used culturally appropriate project materials including promotional items (potholders and magnets) which were inscribed with messages and the project logo. They held an incentive contest to win prizes based upon

whether the participant was up to date on her Pap smear screening. CHWs also distributed program materials in local Vietnamese physician offices, places of worship, and neighborhood stores.

King et al. enrolled healthy premenopausal African-American women into a breast cancer prevention randomized controlled trial.⁸ The mean age was 41 years (SD=3.2 years). The recruiter was an African-American woman from the community and had prior experience in community outreach. Using a variety of tactics including health fairs, media advertisements, and social networking results showed of the 96 participants: 30% were identified from interpersonal relationships, 19% from fliers/brochures within the community, 11% from social networking at worksites, 15% from community presentations, and 7% from health fairs.

Several studies identified and enrolled Vietnamese-American women in Santa Clara County in California.⁹⁻¹¹ Lam et al. and Mock et al. each enrolled women between 18-88 years of age (mean age = 43 and 46 years, respectively) while Nguyen et al. enrolled women 50-74 years of age. The primary tactic for outreach was using the community lay health workers (LHWs) own personal social network to identify and enroll participants into cervical cancer and colorectal cancer screening trials. In addition to social networking, LHWs also used a variety of culturally appropriate materials (e.g., silk roses with reminder cards) and Vietnamese-language television, radio, and newspaper advertisements.

Additionally, based upon a qualitative study of CHWs who enrolled Korean American women into an RCT for breast and cervical cancer screening, it is evident that using personal networks was an effective way to reach potential participants.¹ Each CHW enrolled between 7 and 35 eligible women (average = 19 women) and 81% of women were identified from the CHWs church. Additionally, the 6-month retention rate was 94% in the RCT. No information was given on participant characteristics.

In sum, there is limited evidence on the use of CHWs or HVs to conduct effective outreach strategies with women, specific to reproductive life course stages. Table 3 details the identified literature regarding the use of CHWs and HVs to conduct outreach. Based upon the identified literature, we recommend that programs use CHWs and HVs to conduct the following types of outreach activities:

- (1) Use culturally appropriate outreach and program materials
- (2) Use personal social networks
- (3) Have a presence in the community through formal and informal partnerships
- (4) Use promotional items and provide incentives for enrollment
- (5) Focus on the health of the baby or child to engage mothers with the program
- (6) Use multiple strategies simultaneously

Table 2: Social Marketing Framework Applied to MIH Program Outreach Strategies

Components	Outreach Strategies	Details/Description	Reference/Source
Potential Participants	Referrals from maternity care coordinators	To identify potentially eligible women from their caseloads	Navaie-Waliser et al., 2000 ¹²
	Telephone prescreening	Used church directory to contact potential participants	Choi et al., 2016 ¹
	Neighborhood Canvassing/Door-to-door	-	Bill et al., 2009 ⁶ ; Tiwari et al., 2014 ²
Products	Posters/Flyers	Culturally appropriate (language, images)	Ball & Nevin, 2006 ¹³ ; Bill et al., 2009 ⁶ ; Bird et al., 1998 ⁷ ; King et al., 2010 ⁸ ; Mock et al., 2007 ¹⁰ ; Stanford et al., 2016 ⁵ ; Tiwari et al., 2014 ²
	Brochures	Culturally appropriate (language, images)	Bill et al., 2009 ⁶ ; Bird et al., 1998 ⁷ ; King et al., 2010 ⁸ ; Stanford et al., 2016 ⁵ ; Tiwari et al., 2014 ²
		Photo brochure in various Asian languages – free downloads on the internet	Juon et al., 2016 ¹⁴
	Booklets	Vietnamese language health education materials	Bird et al., 1998 ⁷
	Calendars	Wall Calendars (no details given)	Bird et al., 1998 ⁷
		Reminder calendars (no details given)	Mock et al., 2007 ¹⁰
	Promotional Items	Potholders and magnets inscribed with messages and project logo	Bird et al., 1998 ⁷
		Silk roses with reminder cards	Mock et al., 2007 ¹⁰
	Advertisements	Billboard	Tiwari et al., 2014 ²
		Church Bulletins/Newsletters	Choi et al., 2016 ¹
	Local Newspapers/Magazines	Local magazine article written after media launch held at a local African-American owned restaurant	King et al., 2010 ⁸
		Vietnamese-language ads	Mock et al., 2007 ¹⁰
	Local TV network	Media launch held at a local African-American owned restaurant	King et al., 2010 ⁸
		Vietnamese-language ads featuring female community role models and Vietnamese physicians	Mock et al., 2007 ¹⁰
	Local Radio ads	Media launch held at a local African-American owned restaurant	King et al., 2010 ⁸
		-	Tiwari et al., 2014 ²
	Word of mouth	Referrals from other participants	Tiwari et al., 2014 ²
		-	Juon et al., 2016 ¹⁴
		Used existing church groups	Choi et al., 2016 ¹
	Door-to-door	-	Tiwari et al., 2014 ²
	Neighborhood canvassing	-	Bill et al., 2009 ⁶
Personal Contacts	CHWs used own social networks to recruit	King et al., 2010 ⁸ ; Lam et al., 2003 ⁹ ; Mock et al., 2007 ¹⁰ ; Nguyen et al., 2015 ¹¹	

	Telephone Contacts	Used church directory to contact potential participants	Choi et al., 2016 ¹ Tiwari et al., 2014 ²
	CHWs and HVs own personal network	-	Choi et al. ¹ , 2016; King et al. ⁸ , 2010; Lam et al. ⁹ , 2003, Mock et al., 2007 ¹⁰
	Social Media	Facebook	Hamblin et al., 2014 ¹⁵ ; Tiwari et al., 2014 ²
	Email	Mass emailing lists from local educational institutions	King et al., 2010 ⁸
		Email (no details provided)	Tiwari et al., 2014 ²
	Enrollment Incentives	Incentive contests (if participants up to date with program such as Pap smear screenings, eligible to participate in drawing for prizes	Bird et al., 1998 ⁷
		Gift Packs – given to families and had written information regarding program	Ball & Nevin, 2006 ¹³ ; Bill et al., 2009 ⁶
		Gift bags for mother and child	Bill et al., 2009 ⁶
		\$15 Incentive given to participants	Stanford et al., 2016 ⁵
		Incentives for prospective enrollee (no details provided)	Hamblin et al., 2014 ¹⁵
Price	Enrollment Incentives	Incentive contests (if participants up to date with program such as Pap smear screenings, eligible to participate in drawing for prizes	Bird et al., 1998 ⁷
		Gift Packs - given to families and had written information regarding program	Ball & Nevin, 2006 ¹³
		Gift bags for mother and child	Bill et al., 2009 ⁶
		Incentives for Staff member to recruit/enroll (no details provided)	Hamblin et al., 2014 ¹⁵
		Incentives for prospective enrollees (no details provided)	Hamblin et al., 2014 ¹⁵
		\$15 incentive given to participants	Stanford et al., 2016 ⁵
	Outreach Coordinator	At least 0.75 fulltime effort (no role/responsibilities detailed)	Stanford et al., 2016 ⁵
Staff member solely responsible for outreach and allocation of work		Ball & Nevin, 2006 ¹³	
		Employed a Vietnamese woman as an LHW outreach coordinator	Mock et al., 2007 ¹⁰
Budget	At least 1/6 th of budget spent on outreach and HV services	Ball & Nevin, 2006 ¹³	
Place	Mobile health interventions	-	Bill et al., 2009 ⁶
	Health Fairs	Offered free measurements of blood pressure, height & weight, and vision and dental screenings; 200 enrolled for a screening visit or dental exam from 2 health fairs; Total of about 1500 “browsers” at 2 health fairs who took prevention promotion materials	Bird et al., 1998 ⁷
		-	King et al., 2010 ⁸ ; Tiwari et al., 2014 ²
Health Days	Offered free measurements of blood pressure, height & weight, and vision and dental screenings	Bird et al., 1998 ⁷	

	Community/Cultural Events	-	Bill et al., 2009 ⁶ ; King et al., 2010 ⁸ ; Mock et al., 2007 ¹⁰ ; Stanford et al., 2016 ⁵
	Community Celebrations	-	Stanford et al., 2016 ⁵
	Outreach Events	-	Ball & Nevin, 2006 ¹³ ; Bill et al., 2009 ⁶
	Fun Days	-	Ball & Nevin, 2006 ¹³
	Community Presentations	15% recruited from community presentations	King et al., 2010 ⁸
	Flea Markets	Distributed Vietnamese-language booklets	Mock et al., 2007 ¹⁰
	Basketball Tournaments	-	Tiwari et al., 2014 ²
	Pow Wows	-	Tiwari et al., 2014 ²
	Head Start Locations	Connections with teachers: announcements made to classroom parents	Tiwari et al., 2014 ²
	Grocery stores	-	Stanford et al., 2016 ⁵
	Apartment complexes	-	Stanford et al., 2016 ⁵
Promoting	Focusing on health of the baby or child	Recruit families by focusing on health of the baby or child to fully engage	Ball & Nevin, 2006 ¹³
	Places where priority population women frequent	Hanging fliers and brochures in churches, physician offices, grocery stores, restaurants, shopping centers, hair salons, local businesses, educational institutions, community centers and events frequented by African-American women	King et al., 2010 ⁸
	Culturally appropriate language, wording, and images	Translated into numerous different languages	Ball & Nevin, 2006 ¹³ ; Bill et al., 2009 ⁶ ; Bird et al., 1998 ⁷ ; King et al., 2010 ⁸ ; Mock et al., 2007 ¹⁰ ; Stanford et al., 2016 ⁵ ; Tiwari et al., 2014 ²
Working with Partners	Maintaining Relationships	Used African-American churches for social networking	King et al., 2010 ⁸
		Used own personal social network	Lam et al., 2003 ⁹ ; Mock et al., 2007 ¹⁰ ; Nguyen et al., 2015 ¹¹
		Used own personal network at church and had pastor make announcements during services	Choi et al., 2016 ¹
	Informal Community Partnerships	Vietnamese physician offices	Bird et al., 1998 ⁷
		Neighborhood stores	Bird et al., 1998 ⁷
		Places of faith/worship: Buddhist Temple; Protestant Church; Temples not specified churches; mosques;	Bird et al., 1998 ⁷ ; Choi et al., 2016 ¹ ; Mock et al., 2007 ¹⁰ ; Stanford et al., 2016 ⁵
		Used African-American churches for social networking	King et al., 2010 ⁸
		Community Agencies/Organizations (no details)	Bird et al., 1998 ⁷ ; Mock et al., 2007 ¹⁰
Department of Probation (no details)	Hamblin et al., 2014 ¹⁵		
Refugee servings organizations	Stanford et al., 2016 ⁵		

Table 3: Overview of Studies Reviewed

Study Type	Population, & Location	Sample Size	Context / Purpose	CHW Characteristics	Outreach Strategies	Take Away Recommendations
Ball & Nevin, 2006¹³						
Program evaluation	<ul style="list-style-type: none"> - Families with children under 4 years old - United Kingdom 	22 Sure Start local programs	A review of Sure Start local programs	- Not discussed	<ul style="list-style-type: none"> - Written information leaflets, newsletters, more pictorial, less wordy; translated materials in large mono-lingual populations - Gift packs for families with written information regarding the program - Fun days and other events, mainly on an occasional basis; - Focusing on health of the baby or child may be an effective way to engage women into services/programs 	<ul style="list-style-type: none"> - At least 1/6th of budget was spent on outreach and HV services - More spent if a higher proportion of population was ethnically diverse (e.g., Asian origin) - Each program had a staff member who was responsible for outreach and allocation of work - Events may be useful in engaging new clients - Persistence of CHWs and Nurses can persuade parents to try the program by focusing on small but significant improvements in family well-being - Gift packs to engage potential clients may be effective in recruiting
Bill et al., 2009⁶						
Program evaluation	<ul style="list-style-type: none"> - Low-income pregnant Latina women and their children (up to age 2) - 70% undocumented women - Mean age of 24.6 (13-44 years range) - Chester County, PA; USA 	2,053	A promotora home visiting outreach	<ul style="list-style-type: none"> - <i>Promotoras</i> - Bilingual and bicultural - Have an interest in maternal and child health - Have at least a GED/high school diploma - Completed a 115 hour training program 	<ul style="list-style-type: none"> - Neighborhood canvassing - Development and distribution of culturally appropriate outreach materials (flyers and brochures in English & Spanish) - Enrollment incentives (gift bags for the mother and child) - Outreach events - Mobilization of helping networks 	<ul style="list-style-type: none"> - Promotoras were effective at reaching at-risk pregnant Latinas and establishing trust necessary for undocumented women to enroll in the program - Promotoras must be bilingual and bicultural
RCT	<ul style="list-style-type: none"> - Vietnamese-American women living in Sacramento and San Francisco - ≥ 18 years old - California; USA 	306	Cancer screening	<ul style="list-style-type: none"> - Indigenous women, trained to deliver prevention education to small groups of women in their neighbor's homes - Given a small amount of money for each educational session they did 	<ul style="list-style-type: none"> - Health fairs and health days (measurements of blood pressure, height and weight, vision and dental screenings) - Incentive contest if participants up to date with program such as Pap smear screenings, eligible to participate in drawing for prizes - Program materials were passed out in offices of local area Vietnamese physicians; neighborhood stores; Buddhist temple, Protestant church; and 	<ul style="list-style-type: none"> - 200 enrolled for a blood pressure screening or dental exam from two health fairs - Total of about 1500 “browsers” at the two health fairs who viewed the exhibit and took prevention promotion materials - Vietnamese-language and culturally appropriate health education materials

					agencies - Project materials also included wall posters, brochures, booklets, wall calendars, and promotional items including potholders and magnets (inscribed with messages and project logo)	
Choi et al., 2016¹						
Qualitative analysis of CHWs who recruited women into an RCT	- Korean-American women, Baltimore-Washington DC metropolitan area	23 CHWs	Breast and cervical cancer prevention and screening	- Were recruited from ethnic churches - Female - Mostly college educated - Trained to recruit, retain, and to deliver study intervention	- Personal network at church (approaching people that the CHW knew; building on existing church groups; and CHWs expanding their personal network) - Formal network at church (public announcements in church bulletin or by pastor; use of church directory to call potential participants they did not personally know) - Building on trust and respect (as known members of their community) - Facilitating a nonthreatening environment (offering food as a catalyst for approaching potential participant)	- Each CHW recruited between 7 to 35 eligible women (average = 18.7 women) - Church was most common source of recruitment (80.7%) - 94% 6-month retention rate
Hamblin et al., 2014¹⁵						
Report	- Individuals eligible for health home services - High-need, high-cost - No information given on participant characteristics - NY, USA	Phase I,II,III health homes in NYS with strong quantified track records for outreach & engagement	Outreach for high-need, high-cost individuals	- Multilingual - From the target population	- Outreach must be strongly rooted in the community - Outreach efforts should be strategic, aggressive and quick - Strong relationships with community partners and providers are critical - Use social media (Facebook) - Collaboration with department of probation - Incentives for staff and prospective enrollees - Broad dissemination of training materials	- Outreach should be conducted by dedicated outreach teams with proper skills and should be from the target community - There are a variety of promising practices at the systems, manager, and CHW level - Dedicated outreach teams are key - Invest in good marketing materials - Outreach worker skill sets are more important than credentials - Access to timely, reliable data is key to successful outreach (comprehensive data system is crucial)
Juon et al., 2016¹⁴						
RCT	- Asian Americans - ≥ 18 years old - 57% women, mean age 49 years - Baltimore-Washington DC USA;	232	Hepatitis B vaccination	- Lay Health Workers (LHWs) were trained on Hepatitis B - Chinese, Korean, and Vietnamese; bilingual (English & Mandarin, Vietnamese, or Korean) - ≥ 21 years old - n = 89 LHWs	- Recruited directly by LHWs - Word-of-mouth - Photo novel brochures in various Asian languages downloaded for free on the internet	- Little was detailed regarding recruitment strategies of participants - Suggest using LHWs to gather information on the kinds of outreach activities that would be effective in their community - Suggest using social media, mass e-mailing lists, or mobile health interventions to reach more diverse Asian American population

King et al., 2010 ⁸						
RCT	- Healthy premenopausal African- American women; - Texas, USA	96	African American Nutrition for Life – a breast cancer prevention study	- Recruiter chosen based upon a community advisory committee - Recruiter was African American - From the African American community - In age range where recruitment was targeted (premenopausal) - Prior experience in community outreach - Not a CHW, but used in the same manner	- Community presentations - Health fairs - Community events - Interpersonal relationships - Fliers/brochures - Worksite - Media advertisements, - Community events - Websites - Social networking included contacting personnel and students at local educational institutions (via e-mails) - Used African American churches for social networking - Local community organizations, radio and TV media, and patrons of a local African- American owned restaurant attended a media launch; followed by a local magazine article	- Generated lists from local government and community groups (sororities, civic, social, and professional groups) - Fliers/brochures in churches, physician offices, grocery stores, restaurants, shopping centers, hair salons, local businesses, educational institutions, community centers, events frequented by African American women - 30% recruited from interpersonal relationship - 19% recruited from fliers/brochures - 11% recruited from a worksite - 15% recruited from community presentations - 7% recruited from health fairs
Lam et al., 2003 ⁹						
RCT	- Vietnamese- American women - Santa Clara County, CA; USA	400	Cervical cancer screening	- Vietnamese American and bilingual women (LHWs) - ≥ 18 years - Resident of Santa Clara County - Interpersonal skills including compassionate, dedicated, personable, and willingness to learn	- Used own personal social network to recruit participants	- Replicate established cultural patterns of seeking and sharing reproductive health information within the LHWs social networks - LHWs can use their cultural knowledge, sensitivity, and social networks to reach underserved women
Mock et al., 2007 ¹⁰						
RCT	- Vietnamese- American women - Santa Clara County, CA; USA	968	Cervical cancer screening	- Vietnamese women in Santa Clara County - 50 lay health workers total - 6 hours of training	- Vietnamese-language flip charts and booklets used to explain causes of cervical cancer and Pap testing - LHWs used their social network to recruit participants - Used a media-campaign as a way to reduce barriers to recruitment - 15 advertisements through Vietnamese-language TV, radio, and newspapers	- Employed a Vietnamese woman as an LHW outreach coordinator - 25,000 Vietnamese-language booklets, 12,000 silk roses with reminder cards; 5,000 posters; 15,000 reminder calendars distributed during LHW outreach gatherings, in physician offices, community forums, cultural events, community-based

					<ul style="list-style-type: none"> - Ads featuring female community role models - Ads featured Vietnamese physicians talking about Pap testing 	<ul style="list-style-type: none"> organizations, churches, temples, and flea markets - LHW outreach more effective than media campaign alone
Nguyen et al., 2015 ¹¹						
Cluster RCT	Vietnamese Americans ; Santa Clara County, CA; 640	640	Colorectal cancer screening	<ul style="list-style-type: none"> - 64 LHWs - Male and female LHWs - Self-identified as Vietnamese or Vietnamese-American - 50 to 74 years old - Understanding and speaking Vietnamese - Living in Santa Clara County and intending to stay for the next 12 months - Each LHW recruited 10 participants (male or female) - Recruited from churches. Doesn't really talk about outreach strategies 	<ul style="list-style-type: none"> - Each LHW recruited 10 participants (male/female) - LHWs used own social networks (family, friends, or referrals) 	<ul style="list-style-type: none"> - Shared common characteristics between LHW and participants were important (language, culture, age group, geographical residential area)
Stanford et al., 2016 ⁵						
Program evaluation	<ul style="list-style-type: none"> - Foreign-born nationals in the United States - 50% female - 45% uninsured - 63% Asians - 87% non-Hispanic - Florida, USA 	1,516	Hepatitis B testing and linkage	<ul style="list-style-type: none"> - Culturally competent CHWs led screening and case identification efforts 	<ul style="list-style-type: none"> - Informal partnerships with program staff to conduct outreach (testing) - Informal partnerships drove outreach activities - Refugee serving organizations - Churches, mosques, worship temples - Community events and celebrations - Grocery stores - Apartment complexes - Communication barriers reduced by translating program materials (consent, educational materials) into 13 different languages (Bosnian, Croatian, Hindi, Kirundi, Vietnamese, Spanish, Arabic, Cambodian-Khmer, Russian, Swahili, Chin, Nepali, and Burmese) 	<ul style="list-style-type: none"> - Outreach coordinator with at least 0.75 fulltime effort (no role/responsibilities detailed) - Suggest using community-engagement strategies (none specifically described) - \$15 incentive given

Tiwari et al., 2014 ²						
Intervention trials: (1) Center for Native Oral Health Research Study (CNOHR-1 & CNOHR-2); (2) The Glass Ionomer Sealant and Fluoride Varnish Trial (GIFVT)s; and (3) Tooth Smart Healthy Start (TSHS)	- Low-income, racial/ethnic minority participants; - No information given on participant characteristics - Urban public housing development in Boston; - Hispanic communities near the US-Mexico border - Rural American Indian reservations	- 297 (CNOHR-1) - 1,016 (CNOHR-2) - 596 caregiver-child dyads (GIFVT) - 1,421 (TSHS)	Health disparities preventive intervention trials (3 trials)	- Some of the interventions used CHWs but not all - Staff demonstrated cultural values such as <i>personalismo</i> , which fosters warm, friendly, and informal interpersonal relationships and <i>familismo</i> which promotes close, cooperative, and cohesive relationships with extended family and close friends - CHWs used warm personal greetings and focused on health of children to enroll families into studies - Bilingual, culturally sensitive staff	- Culturally appropriate recruitment materials - Posters, flyers, brochures, radio scripts - Translated study title into tribal language - Community, cultural, and social events - Health fairs - Telephone and Facebook communication - In-person - Referrals from other participants - Billboard ads - E-mail - Basketball tournaments - Pow-wows - Head Start locations/teachers - Door-to-door recruitment - Word-of-mouth	- Using multiple strategies that build trust in the community, are sensitive to cultural norms, and are adaptable to the community environment can enhance recruitment in underserved communities For CNOHR-1: - 64% recruited through field staff at health care centers or other locations (in-person) - 2% recruited through Facebook - 12% recruited through other study participants - 8% recruited through posters, radio public service announcements, newspaper ads, and billboards For CNOHR-2: - Close collaboration with Head Start teachers For GIFVT - % of participants recruited in pharmacies, adult and pediatric medical and dental waiting rooms - Staff turnover hinders recruitment efforts For TSHS - Door-to-door recruitment was primary and most successful recruitment strategy - Staff attended 134 community events including 30 resident appreciation celebration barbeques, 26 family fun events, 22 holiday parties, 19 health fairs, 16 food pantry distribution events, 11 childcare/playgroups, 9 bingo/movie nights, 1 recruitment dinner
Caseload Information						
Quasi-experimental	- Medicaid-eligible mothers and infants - NC, USA	221	Baby Love maternal outreach worker program	- Home visitors - Receive approximately 60 hours of training - Maximum caseload of 25 to 30 families annually - Does not give additional HV characteristics	- Identified potential referrals from maternity care coordinators	- Referrals were used for participant recruitment - No information given on outreach activities - Provides some evidence regarding caseload

(2) How can programs evaluate and strengthen the effectiveness of outreach efforts in their communities?

Currently, there is no evidence on how programs can evaluate and strengthen the effectiveness of outreach efforts within their community. However, we propose MIH programs utilize the Social Marketing Framework described above to structure the evaluation of their outreach strategies, assessing strengths and identifying areas for improvement.

Based upon information shown in Tables 2 and 3, we highlight the usefulness of a dedicated outreach worker, coordinator, or outreach team to strengthen programs' outreach strategies.^{5, 13} It is difficult for CHWs and HVs to maintain a full caseload while simultaneously being held responsible for outreach activities. While there are financial implications for this suggestion we are hesitant to dismiss this option without additional evidence.

(3) What successful strategies are used by home visiting agencies that have been successful in achieving and maintain a full caseload?

Little evidence exists on what visiting agencies have utilized as successful strategies to achieve and maintain a full caseload for their HVs. Navaie-Waliser et al. enrolled Medicaid-eligible mothers and infants into Baby Love, a maternal outreach worker program (Table 3).¹² HVs identified potential participants through referrals from maternity care coordinators. No information was included on HV characteristics or specific outreach activities. However, a maximum caseload of 25 to 30 families annually was noted. Despite this paucity of information about caseload-specific strategies, it is reasonable to assume that effective outreach will result in achieving a full caseload and that effective identification and enrollment strategies will aid in maintaining the full caseload.

Our search revealed some information regarding programs which discussed caseload (Table 4). While they do provide information on their actual caseloads and adjusting for case mix, there is no evidence provided on successful strategies to achieve and maintain full caseloads.

Table 4: Caseload by Program

Program	Details
Early Head Start ¹⁶	<ul style="list-style-type: none"> ➤ Suggests maintaining an average of 10-12 families with a maximum of 12 families
Maternal Early Childhood Sustained Home-Visiting Program (MESCH) ¹⁷	<ul style="list-style-type: none"> ➤ Fulltime nurses expected to maintain a caseload of up to 30 families per year ➤ Part-time HVs or those with a higher proportion of families with very complex needs or families in rural areas (requiring more travel time) will have smaller caseloads ➤ Caseloads should include a mix of families at varying program stages
The California Home Visiting Program External Evaluation (MIECHV) ¹⁸	<ul style="list-style-type: none"> ➤ Argues that the client caseload of 25 families be eliminated because it is too high and stressful for the staff ➤ Caseload should be flexible depending upon client needs and acuity levels ➤ The Home Visitor Caseload Intensity Tool (gather quantitative data regarding MIECHV client risk characteristics, etc.); n=21 HVs completed form ➤ Caseload size ranged from 4 to 25 families ➤ “Attending to caseload intensity would contribute to a better understanding of retention and attrition factors, and provide strategies to reduce attrition in families and burnout in program staff” (page 19).
Community Clinic, Inc. (Maryland) ¹⁹	<ul style="list-style-type: none"> ➤ Maximum caseload is 37 actively engaged patients ➤ Minimum caseload is 10 for newly hired CHWs

References

1. Choi E, Heo GJ, Song Y, Han HR. Community Health Worker Perspectives on Recruitment and Retention of Recent Immigrant Women in a Randomized Clinical Trial. *Fam Community Health*. Jan-Mar 2016;39(1):53-61.
2. Tiwari T, Casciello A, Gansky SA, et al. Recruitment for health disparities preventive intervention trials: the early childhood caries collaborating centers. *Prev Chronic Dis*. Aug 07 2014;11:E133.
3. Nichols L, Martindale-Adams J, Burns R, et al. Social marketing as a framework for recruitment: illustrations from the REACH study. *J Aging Health*. Nov 2004;16(5 Suppl):157s-176s.
4. Hamblin A DR, Hunt K. Outreach to High-Need, High-Cost Individuals: Best Practices for New York Health Homes. Available at: <http://nyshealthfoundation.org/uploads/resources/chcs-health-homes-outreach-report-april-2014-1.pdf>. Accessed September 20, 2016.
5. Stanford J, Biba A, Khubchandani J, Webb F, Rathore MH. Community-engaged strategies to promote hepatitis B testing and linkage to care in immigrants of Florida. *J Epidemiol Glob Health*. Jun 30 2016.
6. Bill DE, Hock-Long L, Mesure M, Bryer P, Zambrano N. Healthy Start Programa Madrina: A Promotora Home Visiting Outreach and Education Program to Improve Perinatal Health among Latina Pregnant Women. *Health Educator*. 2009;41(2):68-76.
7. Bird JA, McPhee SJ, Ha NT, Le B, Davis T, Jenkins CN. Opening pathways to cancer screening for Vietnamese-American women: lay health workers hold a key. *Prev Med*. Nov-Dec 1998;27(6):821-829.
8. King DW, Duello TM, Miranda PY, et al. Strategies for Recruitment of Healthy Premenopausal Women into the African American Nutrition for Life (A NULIFE) Study. *J Womens Health (Larchmt)*. May 2010;19(5):855-862.
9. Lam TK, McPhee SJ, Mock J, et al. Encouraging Vietnamese-American women to obtain Pap tests through lay health worker outreach and media education. *J Gen Intern Med*. Jul 2003;18(7):516-524.
10. Mock J, McPhee SJ, Nguyen T, et al. Effective lay health worker outreach and media-based education for promoting cervical cancer screening among Vietnamese American women. *Am J Public Health*. Sep 2007;97(9):1693-1700.
11. Nguyen BH, Stewart SL, Nguyen TT, Bui-Tong N, McPhee SJ. Effectiveness of Lay Health Worker Outreach in Reducing Disparities in Colorectal Cancer Screening in Vietnamese Americans. *Am J Public Health*. Oct 2015;105(10):2083-2089.
12. Navaie-Waliser M, Martin SL, Tessaro I, Campbell MK, Cross AW. Social support and psychological functioning among high-risk mothers: the impact of the Baby Love Maternal Outreach Worker Program. *Public Health Nurs*. Jul-Aug 2000;17(4):280-291.
13. Ball M, Niven L. *Outreach and Home Visiting Services in Sure Start Local Programmes*: DfES; 2006.
14. Juon HS, Strong C, Kim F, Park E, Lee S. Lay Health Worker Intervention Improved Compliance with Hepatitis B Vaccination in Asian Americans: Randomized Controlled Trial. *PLoS One*. 2016;11(9):e0162683.
15. Hamblin A, Davis R, Hunt K. *Outreach to high-need, high-cost individuals: Best practices for New York Health Homes*: New York State Health Foundation; 2014.
16. HHS/ACF/OHS/EHSNRC. What is the Maximum Number of EHS Children for a Home Visitor's Caseload? *Early Head Start Tip Sheet No. 31* 2009.
17. Services USDoHH. Implementing Maternal Early Childhood Sustained Home-Visiting Program (MECSH). 2014.
18. Finello K. The California Home Visiting Program External Evaluation: Development of the Home Visitor Caseload Intensity Tool and the Summary Finding. 2016.
19. Community Clinic I. Community Health Worker Integration into Primary Care Settings. 2015.



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