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Social and Behavior Change Communication in Integrated Health Programs: A Scoping and Rapid Review

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ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
AOR	Adjusted Odds Ratio
ANC	Antenatal Care
CAC	Community Action Cycle
CASCADA	Conscious knowledge, Attitudes, Subjective norms, intention to Change, Agency, Discussion and Action
CCP	Johns Hopkins University Center for Communication Programs
CHV	Community Health Volunteer
CHW	Community Health Worker
CI	Confidence Interval
DiD	Difference-in-Difference approach
HIV	Human Immunodeficiency Virus
IDU	Injecting Drug User
LHW	Lady Health Worker
LMICs	Low and Middle Income Countries
MCHIP	Maternal and Child Health Integrated Program
MNCH	Maternal, newborn and child health
MSC	Most Significant Change
MSM	Men who have Sex with Men
OR	Odds Ration
PLHIV	People Living with HIV/AIDS
PWID	People Who Inject Drugs
PSI	Population Services International
RMNCH	Reproductive, maternal, newborn and child health
SBCC	Social and behavior change communication
SMART	Community-based Initiatives for a Better Life

SMGL	Saving Mothers Giving Life
STI/STD	Sexually transmitted infection/sexually transmitted disease
TB	Tuberculosis
USAID	United States Agency for International Development
UNCoLSC	United Nations Commission of Life Saving Commodities for Women and Children
UNICEF	United Nations Children's Fund
WHO	World Health Organization

INTRODUCTION

In many developing countries, health systems have become fragmented and siloed, often as a result of donor investment in particular diseases, approaches or populations. In recent years, the global health community, including ministries of health, donors and non-governmental organizations, has turned its attention to integrated health services in order to provide a more patient/client-focused environment for health care and promotion. Integration has been defined and understood in different ways, such as:

1. A package of preventive and curative health interventions for a particular population group: For example, providing HIV treatment and tuberculosis (TB) testing to people living with HIV/AIDS (PLHIV)
2. Multi-purpose service delivery points: For example, providing family planning at an antenatal care (ANC) clinic
3. A continuum of care along the life cycle of an individual: For example, ensuring that postpartum women receive follow-on services related to family planning, newborn health, and child health.
4. Vertical integration of different levels of service: For example, referrals from a primary health center to a secondary hospital.
5. Integrating communication about topics such as nutrition, water, sanitation and hygiene related issues, recognizing that they are all inter-linked and impact one another.

The World Health Organization (WHO) developed a working definition of integrated health services in 2008 that brings together many of these understandings:

"*the organization and management of health services so that people get the care they need, when they need it, in ways that are user-friendly, achieve the desired results and provide value for money*." [1]

The aim of this review is to understand the nature and scope of social and behavior change communication (SBCC) in integrated health programs. The review specifically examined studies or programs where **one or more SBCC approaches** were utilized in any program that integrated across **two or more health conditions across the RMNCH continuum of care** in **low or middle-income countries** (LMICs). This differs somewhat from the standard definition of integrated health *services,* as the focus could involve individual, household or community-level behaviors that are not linked to health services, such as hand-washing, exclusive breastfeeding or improved child feeding practices. Additionally, only predetermined health conditions across the RMNCH continuum of care were considered, thus programs which integrated across health conditions not on the list were not included.

The primary research questions were:

6. Which SBCC approaches have been utilized in integrated health programs?

[1] Integrated Health Services - What and Why? Technical Brief No. 1. World Health Organization; 2008. http://www.who.int/healthsystems/technical_brief_final.pdf. Accessed on May 5, 2015.

7. What are the knowledge, attitudinal, behavioral and health outcomes of integrated programs that utilize SBCC?

METHODOLOGY

The review included informational interviews with individuals at organizations that are likely to have implemented integrated programs that have a SBCC component as well as a mapping of the existing peer-reviewed and grey literature about SBCC approaches in integrated programs.

Informational Interviews

Key informant interviews were conducted to identify examples of existing integrated projects that use SBCC approaches and to explore how organizations and individuals defined integrated programs and/or SBCC approaches. Internet research, cold calling and personal referrals (often from other key experts in the field and/or organizations) helped to identify individuals best suited for the interviews. Each organization and key informant was selected based on technical expertise especially in the areas of reproductive, maternal, neonatal and child health (RMNCH), SBCC, and their experience in developing integrated health programs. The research team conducted 14 key informant interviews with individuals from 11 organizations (see Appendix 1).

The interviews were conducted by phone and ranged from 20- 90 minutes. A consent statement was read to each participant and verbal permission to record the interview was obtained. An interview guide was prepared to ensure that all areas of interest were adequately covered (See Appendix 2 for details). Probing, in order to build on the information and responses provided by the interviewees was encouraged. The interviewer also noted any resources that were shared. After each interview, a brief summary of highlights was prepared to capture relevant themes and information. This summary was used to guide the scope and definitions of the mapping exercise.

Mapping of the existing literature

Identification of literature: Search strategy

Two electronic databases -PubMed and POPLINE - were searched in order to identify relevant published literature. To identify grey literature, websites of organizations identified as likely to have implemented SBCC-based integrated programs were searched along with USAID's Development Experience Clearinghouse (see Appendix 3 for search terms for SBCC approaches and developing countries).

Inclusion criteria

The inclusion criteria were as follows:

- Were in English
- Involved human subjects
- Published after 2000
- Included two or more health conditions of interest (see Table 1)

- Included one or more SBCC approaches (see Table 2)
- Were located in developing countries and regions. Developing countries and regions are defined using USAID's list and criteria (see Table 3)
- Included an integrated health program (defined as addressing two or more health conditions).

A list of health conditions of interest was created based on the World Health Organization (WHO) fact sheets that indicated a list of causes of death for maternal, newborn, child and adolescent mortality, as well as through a review of sources related to the UN Millennium Development Goals 4 and 5. Once the health conditions were listed they were grouped under sub-headings such as Pregnancy/Fertility related, Nutritional deficiency, Violence and so on, in order to classify them under different broad non-overlapping health areas. See Table 1 below for a complete list of health conditions and their grouping.

Table 1: Health conditions of interest

Pregnancy/Fertility
- Severe bleeding (pregnancy related)
- Complications from delivery
- Preeclampsia/ Eclampsia
- Postpartum hemorrhage
- Sepsis
- Anemia (pregnancy related)
- Obstetric fistula

Nutritional deficiency
- Anemia
- Vitamin A deficiency
- Vitamin D deficiency
- Stunting/wasting

Neonatal
- Low birth weight
- Preterm infant (restricted fetal growth)
- Newborn sepsis
- Hypothermia
- Jaundice
- Asphyxia

Vaccine/Immunization
- Measles
- Mumps
- Rubella
- Rotavirus
- Pertussis
- Polio
- Tetanus
- Meningitis

Injury
- Road injury
- Drowning

Violence
- Domestic violence
- Intimate partner violence
- Gender-based violence

Other Health Conditions
- Suicide/depression
- Urinary Tract Infection
- Reproductive Tract Infection
- Respiratory infections (Acute and Lower)
- Respiratory distress syndrome
- Substance abuse (alcohol, drugs, Fetal Alcohol Syndrome)
- Cervical cancer
- Diarrhea
- HIV/STI/STD
- Pneumonia
- TB
- Malaria

The reviewers identified a list of SBCC approaches and interventions to include in the search terms of the mapping exercise, including variations of the terms that were known to the study team. After the initial extraction, the list was revised to group interventions into broad categories with shared characteristics. These categories were taken from those used in a global SBCC landscaping study by Storey and colleagues (2011), and revised to create a new category for internet/digital media/mobile health, which was previously included under "media and social marketing". Six categories of SBCC approaches were therefore used in this review to group SBCC interventions. Definitions of the categories were taken from Storey et al (2011) (provided below). The definition for media and social marketing was revised alongside creation of a separate definition for internet/digital media/mobile health:

> **Community-based approaches:** Community-based interventions are those that emphasize the community, rather than the individual, as the point of engagement. Although they may involve the use of face-to-face or media channels, they tend to focus on group processes (e.g., participation, consensus building, community dialogue) and the use of public events as ways of reaching and involving community members on a broad scale. Outcomes of community-based interventions usually include some kind of collective action, rather than individual action, although the health benefits of the intervention may be realized at the individual as well as the community level. That is, individual health behaviors may change as result of collective action and community support for behavior change, but the community as a whole may also benefit from collective action that changes overall health conditions or processes. The choice of a community-based intervention approach is often motivated by sustainability goals.
>
> **Interpersonal communication approaches:** Interpersonal communication (IPC) interventions involve face-to-face interaction between health promoters/educators/ communicators/service providers and clients. These interactions can occur in a health facility, the home or elsewhere in the community. Although other intervention approaches may include some element of interpersonal communication, IPC interventions focus on the advantages of personal contact, namely, the ability to tailor information to a client's needs and the power of persuasion and social influence in a face-to-face encounter. IPC may occur in small group as well as one-on-one settings as long as the group is small enough to allow dyadic interactions among all members of the group. Counseling is a specialized form of IPC that involves some degree of formal training in the techniques of effective interaction. Frontline service delivery interventions also tend to be community-based and to involve interpersonal or face-to-face communication, so could be classified with those other two intervention categories, but they differ in their emphasis on the role of the trained health workers themselves and on reaching clients at the end of the service supply chain with quality services.
>
> **Group-based approaches:** Group-based interventions emphasize and take advantage of social structural factors that influence behavioral choices. Such factors include the network structure of a social group (and an individual's position or role within that network) and the nature of the interpersonal relationships within a group. Other factors are the extent to which social and material resources are available and are shared within social groups, including the degree of social cohesion and mutual support that exist among members of a group. In this category we also include intervention approaches that focus on normative pressures (both positive and negative) that influence attitudes and behavioral choices among members of the group. Normative change efforts take advantage of the social dynamics of groups to reinforce positive

norms or undercut negative norms.

Behavioral economics approaches: This class of intervention approaches employs a variety of channels or delivery modes from mass media to community-based to interpersonal, but are distinct in their focus on economic factors in decision-making, under the assumption that people attach value to behaviors and associate choices with gain or loss. Gain or loss can be literally financial, as in receiving a subsidy or voucher for service utilization, or subjective as in a gain or loss of status or self-esteem.

Media and social marketing approaches: Media and social marketing interventions include a broad range of media technologies, including large mass media (e.g., national television), and smaller, more local, media and approaches (e.g., community radio). Social marketing approaches adapt traditional marketing theories and principles to the promotion of a behavior or product that improves personal or social welfare. Media are often used in an integrated way, with multiple delivery mechanisms deployed simultaneously to carry complementary and mutually reinforcing content.

Internet/digital media/mobile health: These interventions include a variety of web-based and mobile technologies and software applications that permit information sharing, interaction and collaboration among users and that allow the creation and exchange of user-generated content.

Table 2: SBCC approaches

SBCC approach	Intervention
Community-based approaches	• Community engagement and interventions • Community Mobilization • Community Outreach • Social Mobilization • Social Movements and Empowerment • Positive Deviance/Role Models
Interpersonal communication approaches	• Client-Provider/Physician-patient interaction • Community/Frontline Health Workers/Midwives/Traditional Birth Attendants • Counseling • Home Visits/Household Outreach • Peer Educators/Peer-to-Peer Communication
Group-based approaches	• Social Capital/Social Support • Social Networks • Social Norms/Normative Change
Behavioral economics	• Financial Incentives/Vouchers • Non-financial Incentives and Motivators
Media and social marketing	• Advocacy • Mass Media - Print media (magazines, newspapers, etc.); Radio; Television/ Video • Social Marketing/Marketing Health Services/Social Franchising

	• Strategic/Persuasive Communication • Entertainment –Education (Education-Entertainment)/ "Edutainment"
Internet/digital media/mobile health	• mHealth/cellphone (smartphone/feature phone/tablet/PDA/other mobile devices, SMS, MMS, IVR) • Helpline, hotlines • eHealth/eLearning/websites • Pico projector • Information Communication Technology • Digital Media • Social Media

Geographic coverage of the review was limited to developing countries in order to focus the review on relevant evidence for future investment in integrated SBCC programming in those countries. The designation of developing countries by the United States Agency for International Development (USAID) was used (see Table 3).

Table 3: USAID designated developing countries[2]

Afghanistan	Ethiopia	Marshall Islands	Sudan
Angola	Fiji	Mauritania	Swaziland
Armenia	Gambia	Micronesia	Syria
Bangladesh	Georgia	Moldova	Tajikistan
Belize	Ghana	Mongolia	Tanzania
Benin	Guatemala	Morocco	Timor-Leste
Bhutan	Guinea	Mozambique	Togo
Burkina Faso	Guinea-Bissau	Nepal	Tonga
Burma/Myanmar	Guyana	Nicaragua	Turkmenistan
Burundi	Haiti	Nigeria	Tuvalu
Cambodia	Honduras	Pakistan	Uganda
Cameroon	India	Palestine	Ukraine
Cape Verde	Indonesia	Papua New Guinea	Uzbekistan
Central African Republic	Iraq	Paraguay	Vanuatu
Chad	Ivory Coast	Philippines	Vietnam
Comoros	Kenya	Republic of the Congo	Yemen
Côte d'Ivoire	Kiribati	Rwanda	Zambia
Democratic People's Republic of Korea	Kosovo	Samoa	Zimbabwe
	Kyrgyzstan	São Tomé and Principe	
Democratic Republic of the Congo	Laos	Senegal	
	Lesotho	Sierra Leone	
Djibouti	Liberia	Solomon Islands	
Egypt	Madagascar	Somalia	

[2] List of Developing Countries: A Mandatory Reference for ADS Chapter 310. United States Agency for International Development (USAID); 2012. http://www.usaid.gov/sites/default/files/documents/1876/310maa.pdf. Accessed on May 5, 2015.

El Salvador	Malawi	South Sudan
Eritrea	Mali	Sri Lanka

Screening

The abstracts were screened using review management software- DistillerSR. Two reviewers independently screened each abstract and any disagreements between them were resolved through discussion. If the reviewers did not agree, a third reviewer was called in to make a decision around the inclusion of the abstract. The full-texts of the included studies were retrieved. Two reviewers screened the full-texts of the articles and all conflicts were resolved through discussions.

Data extraction

Initial data extraction was carried out by two reviewers and included the following aspects of the data:

8. The type of SBCC approaches used;
9. The health conditions that were integrated; and
10. Whether an evaluation was conducted and, if so, the study design and the type of outcomes assessed.

At this stage, the data extraction guidelines were refined to clarify points of contention that arose during the initial extraction process. In particular, the target audience was added, the SBCC interventions were classified by approach (as shown in Table 2) and clearer instructions were provided for other factors. The following information, when available, was then extracted from all of the included studies by one reviewer (see Appendix 4 for details of the final extraction guidelines):

- Author's name and year
- Country and setting of the study
- Target audience
- SBCC approaches used
- Intervention description
- Health outcomes targeted
- Outcomes category
- Outcomes description and results
- Conclusion/implications for SBCC Programming

Data Synthesis

Key features, patterns, results and lessons learned were extracted and synthesized from the articles and reports.

RESULTS

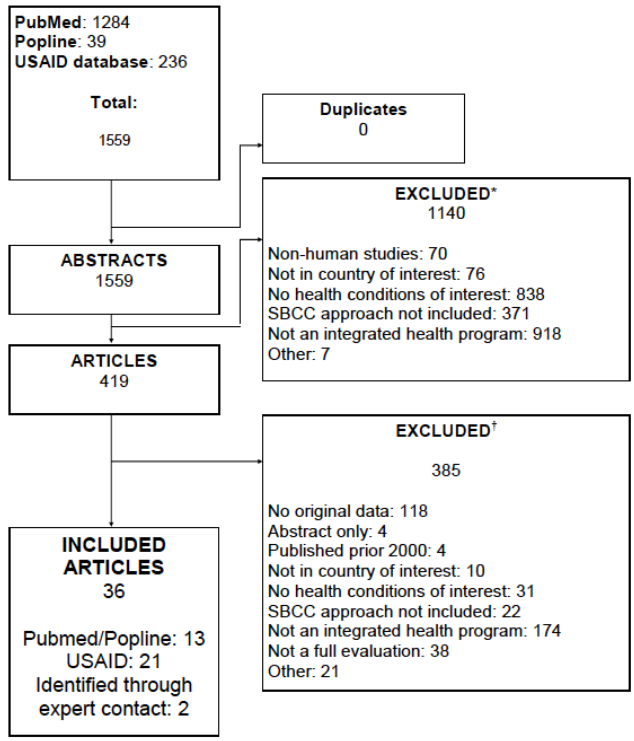
Overview of studies and programs

Number of articles found and reviewed

The initial search yielded a total of 1559 unique citations. By screening the abstracts, 1140 were excluded because they did not meet one or more of the inclusion criteria. Full text screening excluded a further 385 articles. Two articles were identified through expert contact. Thus, a total of 36 studies were included in the final review (see Figure 1 for a summary of the search and review process).

Fourteen studies were from peer-reviewed journals; 21 studies were from USAID's Development Experience Clearinghouse and one study was from a book. [1] One study was about a component of a larger program also included in the review. [1,2] The articles are summarized in Appendix 5 and details of the intervention and outcomes of each article are provided in Appendix 6. See Appendix 7 for a list of included articles in the review.

Figure 1: Summary of search and review process

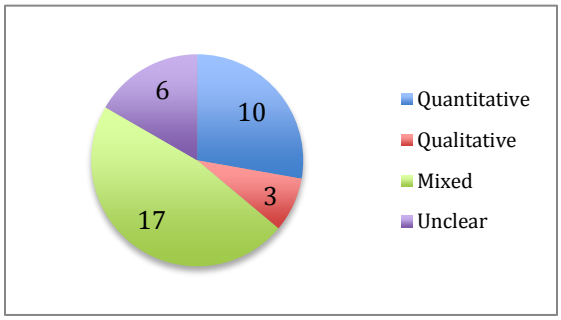


*Sum of excluded abstracts exceeds 1140 because reviewers were not required to agree on reasons for exclusion
†Sum of excluded articles exceeds 385 because reviewers were not required to agree on reasons for exclusion

Study design

Of the 36 studies included in the review, 17 employed a mixed methods design. [3-19] Of the other studies, nine used a quantitative design [20-28] and three used a qualitative design. [29-31] The methods were unclear in six of the studies. [1,2,32-35] See Figure 2.

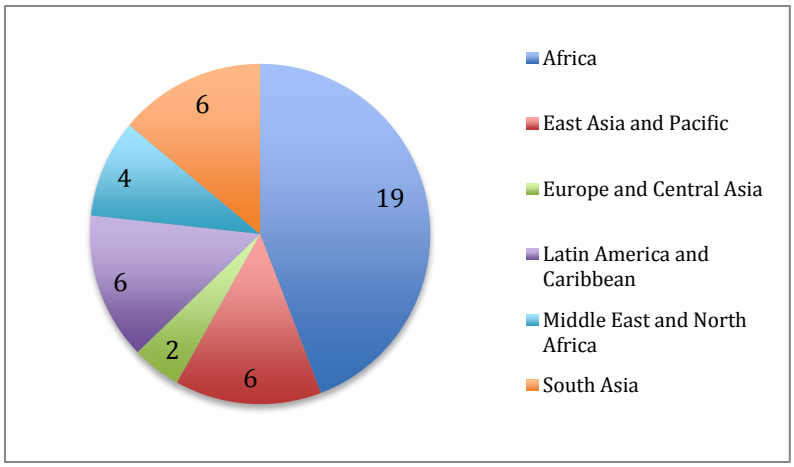
Figure 2: Study design distribution



Geographic distribution

As shown in Figure 3, nineteen studies took place in sub-Saharan Africa, [3,6,8-11,14,16,18,24,25,27,30-36] six in Latin America and the Caribbean, [4,5,17,21,24,33] six in East Asia and Pacific, [7,22,23,28,29,33] six in South Asia, [12,19,24,26,33,35] four in Middle East and North Africa, [1,2,13,20] and two in Europe and Central Asia. [15,33]

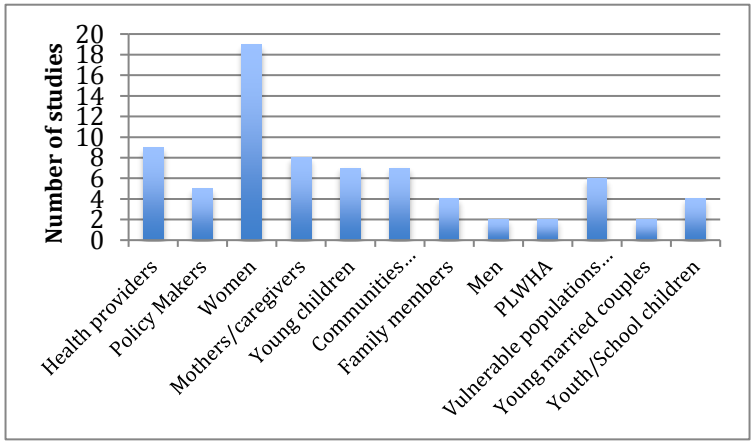
Figure 3: Geographic distribution



Target audience

Information on the target audience was extracted when explicity stated or inferred, however this information was not always clear. Of those studies that did describe a target audience, the vast majority targeted women, usually pregnant women. [3,5,6,9,10,13,14,17-20,23-25,27,30-33,35] Nine targeted mothers or caregivers of young children, [10,11,13,14,27,31-33,35] seven targeted young children, [2,6,11,13,16,17,26] seven targeted communities (members/leaders), [8-11,19,21,24] four targeted family members, [10,16,18,23] two targeted men, [3,28] two targeted people living with HIV/AIDS, [7,15] six targeted vulnerable populations (including men who have sex with men (MSM) and people who inject drugs (PWID), [4,7,8,15,22,29] two specifically targeted young married couples (which were part of the same project), [1,2] and four studies targeted youth or school-age children. [3,8,10,28] Nine studies targeted health providers, though the cadre was not always clear. [7,9,10,14,18,24,32-34] Five studies targeted policy makers. [9,18,19,30,32] See Figure 4.

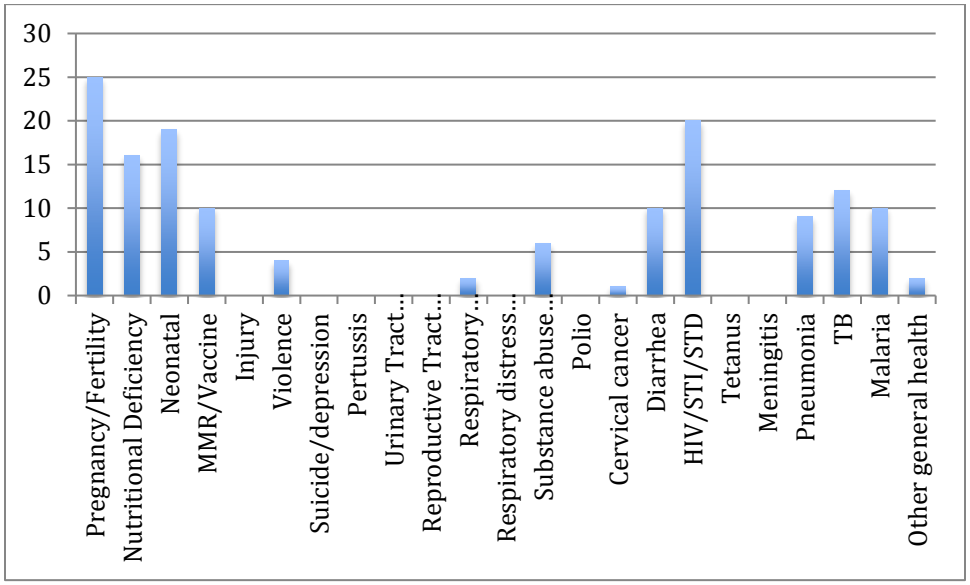
Figure 4: Target audience



Health outcomes

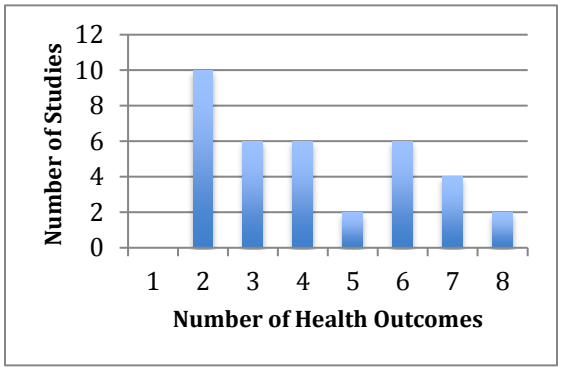
The 36 articles addressed 13 out of the 23 health conditions of interest identified for the review (as listed in Table 1). Pregnancy/fertility-related outcomes were the most frequently studied, [1,2,5,6,9,10,12-14,16-21,23-27,30-33,35,36] followed by HIV/STIs. [1-5,7-12,14,15,22,25,28,29,32,33,35] No studies were found that addressed injury, suicide/depression, pertussis, urinary tract infection, reproductive tract infection, respiratory distress syndrome, alcohol syndrome, polio, tetanus or meningitis. See Figure 5.

Figure 5: Frequency of health outcomes addressed



Of the 36 studies included in the review, ten addressed two health outcomes, [3,8,18,19,22-25,28,29] six addressed three health outcomes. [4,7,11,13,15,30] Twenty of the studies addressed four or more health outcomes: six addressed four health outcomes, [2,5,10,17,20,36] two addressed five health outcomes, [21,34] six addressed six health outcomes, [1,12,26,27,32,33] four addressed seven health outcomes, [6,9,14,31] and two addressed eight health outcomes. [16,35] See Figure 6.

Figure 6: Number of health outcomes integrated



When examining the combination of health outcomes, eight studies addressed health outcomes that are "co-occurring", that is where behaviors and/or health conditions tend to occur together. [3,4,7,8,15,22,28,29] Studies that fall under this integration model all included HIV/AIDS as a health condition and were integrated with substance abuse, [4,7,15,22,28,29] violence, [3,4] and/or tuberculosis (TB). [7,8,15] For example, the USAID TB program in South Africa developed a national TB awareness campaign called "We Beat TB", aimed to increase awareness around TB-HIV co-infection and improve prevention and treatment. [8] Evaluation of the program found that those exposed to the program were 1.3 times more likely to have tested for HIV in the past 12 months (Odds Ration [OR] not provided) and were twice as likely to have high knowledge of TB/HIV co-infection (Adjusted Odds Ratio [AOR]: 2.06; 95% confidence interval [CI]1.79-2.37). See Case Study 1 for another example of a co-occurrence integration model intervention.

Twenty-eight studies took a life-cycle approach to integration, in which health conditions that occur at a particular stage in an individual's life are addressed together. The vast majority of studies were focused on health outcomes across a particular stage in the life-cycle, most often the 1000 day cycle of

pregnancy, neonatal and early childhood. Twenty-three studies focused on the reproductive stage in life, including pregnancy/fertility health outcomes, [1,2,5,6,9,10,12-14,16-21,23-27,30-33,35,36] neonatal health outcomes, [1,5,6,9,10,13,16,19-21,24,26,27,30-33,35,36] and early childhood health outcomes. [1,2,6,9,13,14,16-18,20,21,26,27,31,32,35,36] Two studies focused exclusively on the childhood life stage. [11,34] Some of the interventions focused on the reproductive life stage, also integrated with other health issues, such as HIV/STIs, [1,2,5,9,10,12,14,25,32,33,35] TB, [1,2,9,10,12,16,26,32,33] malaria, [9,14,16,18,27,30-32,35,36] and cervical cancer. [32]

The Community-based Initiatives for a Better Life (SMART) Project in Egypt is an example of a life-cycle approach to integration. [13] This project aimed to promote behavior change related to RMNCH and nutrition using community health worker (CHW) outreach, nutrition education and rehabilitation at the community level and home-based neonatal care. A final mixed methods external evaluation of the project based on a desk review of pre-existing data and documents and primary data collection through email, telephone surveys and in-country in-depth interviews and discussions found that SMART's SBCC activities led to knowledge and behavior changes at the household and community levels, especially in exclusive breastfeeding, improved household nutrition practices and ANC. The study also found improved knowledge and behaviors among CHWs: CHWs who could correctly identify the seven danger signs for newborns increased from 28 percent at baseline to 52.5 percent at endline; mothers with children under two who received their first postnatal care home visit within two days of delivery increased from 35 percent to 62 percent; and, an increase in the percentage of husbands (14.5 percent to 34.7 percent) and wives (50.7 percent to 80.1 percent) who received at least one family planning counseling session during pregnancy (frequency distributions were presented, however measurements of statistical significance were not included in the report). The evaluation recommended harnessing the life-cycle approach even further by targeting adolescents with RMNCH-nutrition messages prior to marriage and first pregnancy. See Case Study 2 for a further example of a life-cycle integration model intervention.

It was difficult to assess the level of integration occurring in some programs. For example, while an overall project may address multiple health issues, specific activities or campaigns may focus only on one health issue, with simultaneous or consecutive campaigns addressing different health outcomes.

CASE STUDY 1: A CO-OCCURRENCE INTEGRATION MODEL INTERVENTION - COMBINATION PREVENTION PROGRAM FOR HIV [4]

Rationale for an integrated health approach

In the context of low and middle-income regions such as Central America and among men who have sex with men (MSM), HIV prevention had been unable to gain traction using vertical or isolated efforts that operated without addressing context. The *Combination Prevention Program for HIV* in Central America aimed to increase access to HIV prevention interventions, reduce risk behaviors among key populations, and reduce stigma and discrimination. The combined prevention approach simultaneously uses biomedical, SBCC, and structural interventions to promote healthy behaviors and reduce HIV risk. Each intervention targets a different facet of prevention at varying levels including individual, community, and society, resulting in a more well-rounded approach.

Intervention

The *Combination Prevention Program for HIV* included outreach to MSM, referrals for biomedical services and complementary services, including substance abuse and violence. The SBCC component was conducted either in person with print materials or online by cyber-educators. Delivery of activities was tailored for each individual based on discussion and reflection by outreach workers of the individual's ability to practice specific behaviors including condom use and/or HIV testing and counseling. Outreach workers were responsible for ensuring availability of condoms and lubricants for sample and purchase.

Theoretical basis

SBCC activities were designed based on the trans-theoretical model and Population Services International's PERForM framework. All activities were developed with the goals of building individual skills to assess health risks and carry out prevention actions and increasing demand for the program's products and services. Outreach workers used Prochaska's Stages of Change framework to delineate stages to identify individual's abilities to practice and change behaviors.

Evaluation and key results

To evaluate the program, MSM were surveyed using respondent-driven sampling and statistically equivalent groups were created with matching to test program exposure. Survey data was also linked to routine service data to measure program coverage. Results showed that men exposed to any of the components (32.2% in study area) were more likely to consistently use condoms with regular partners (OR 1.69; 95% CI 1.09, 2.62) and to have been tested for HIV (AOR 2.98; 95% CI 1.82, 4.87). Those who were exposed to the behavioral component were more likely to use condoms with a water-based lubricant the last time they had sex (OR 1.84; 95% CI 1.08, 3.14), to consistently use condoms with regular partners (AOR 1.88; 95% CI 1.09, 3.25), and to have been tested for HIV in the past 12 months (OR 1.76; 95% CI 1.001, 3.10). There was no evidence overall that exposure to all three components of the program was associated with outcomes of interest even though this level of exposure was rare among participants.

Challenges

The *Combination Prevention Program for HIV* was limited by varying program coverage and exposure across countries. There was also potential for bias in the survey data's recall of program exposure and outcomes. The individual-level measurement approach used to assess program exposure and outcomes was unable to measure structural level changes and capture advocacy and social mobilization efforts.

Implications

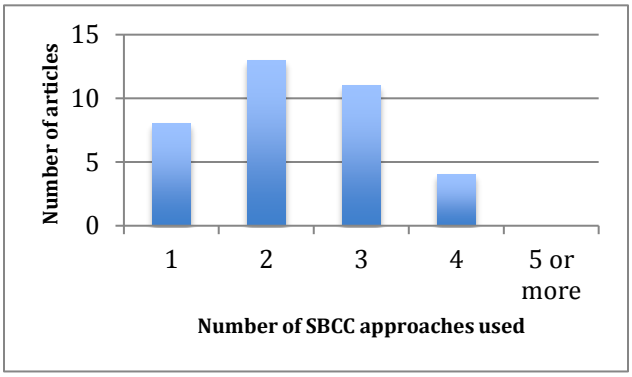
Findings from the evaluation suggested that interpersonal communication combined with a structured approach to SBCC could be effective in influencing specific behaviors. Future integrated programs using SBCC can better measure the impact of multi-level exposures using approaches that take into consideration the effects of structural factors. The combination of interventions should be tailored to fit with local epidemiology

and social conditions. Evaluations of these programs should use a multi-level approach to assess complex program operations and the different operational levels of an integrated program.

SBCC approaches

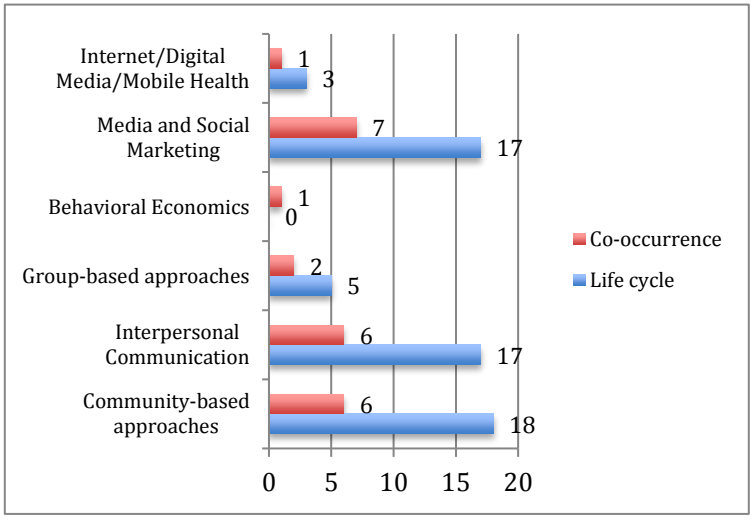
The majority of programs (28) used a combination of SBCC approaches: 13 used two categories of SBCC approaches, [2,3,6-9,14,16,17,23,26,33,35] 11 used three categories, [1,4,10,12,13,21,28,29,31,32,36] and four used four categories. [11,15,19,22] Eight studies were identified that used only one category of SBCC approaches. [5,18,20,24,25,27,30,34] See Figure 7. Among those studies using multiple approaches, the importance of consistent messaging across approaches and channels was highlighted.

Figure 7: Number of SBCC approaches used



Among the eight programs addressing *co-occurring health outcomes/behaviors*, seven used media and social marketing, [3,4,8,15,22,28,29] six used community-based approaches, [7,8,15,22,28,29] six used interpersonal approaches, [4,7,15,22,28,29] two used group-based approaches, [3,15] one used behavioral economics, [22] and one used internet/digital media/mobile health. [4] Among the 28 programs addressing *health outcomes along the life-cycle*, 18 used community-based approaches, [1,6,10,11,13,14,16,17,19,21,23,24,30-33,35,36] 17 used interpersonal approaches, [1,2,6,10,12-14,16,17,19,20,26,31-34,36] 17 used media and social marketing, [1,2,5,9-12,18,19,21,23,25,27,31,32,35,36] five used group-based approaches, [9,11,13,21,26] and three used internet/digital media/mobile health. [11,12,19] No life-cycle programs used behavioral economics. See Figure 8.

Figure 8: SBCC approaches used by type of integration model



Interpersonal communication approaches were used in 23 studies, including six studies focused on co-occurring health outcomes/behaviors, [4,7,15,22,28,29] and 17 studies focused on health outcomes along the life-cycle. [1,2,6,10,12-14,16,17,19,20,26,31-34,36] The effectiveness of outreach and counseling in reaching vulnerable or hard-to-reach populations, especially when addressing sensitive topics such as drug use and HIV/AIDS, was demonstrated in several projects addressing co-occurring behaviors/health outcomes, specifically substance abuse, violence and HIV/AIDS in central America, [4] substance abuse, HIV/AIDS and TB in Vietnam, [7] and central Asia. [15] For example, in Vietnam, an HIV prevention, care

and treatment program that also addressed substance abuse and TB co-infection among PLHIV used an "enhanced" outreach approach, whereby a variety of outreach workers, including peer educators, existing hamlet health workers and community groups conducted outreach and incorporated community-based HIV interventions to reach, test, counsel and retain key populations. [7] Preliminary results from a midterm evaluation based on a desk review and key informant interviews found that 83 percent of individuals reached with the enhanced outreach approach took an HIV test (compared to 39 percent with the traditional model) and 97 percent of newly identified HIV-positive individuals were successfully referred to care and treatment services (compared to 40 percent reported nationwide) (statistics not presented in the report).

The effectiveness of interpersonal communication approaches was also demonstrated in those studies addressing RMNCH behaviors along the life cycle. For example, a community-based, cluster-randomized effectiveness trial with control communities tested the addition of a nutrition component to an existing community RMNCH outreach program in Pakistan that used home visits by Lady Health Workers (LHW) to families with infants and young children from birth to 24 months of age in a rural area. [26] The study randomly allocated 80 clusters (LHW catchments) of children to receive routine health and nutrition services (controls; n=368), nutrition education and multiple micronutrient powders (enhanced nutrition; n=364), guiding parents to be sensitive and responsive to their child's signals (responsive stimulation; n=383), or a combination of both enhanced nutrition and responsive stimulation (n=374). The study found that children exposed to responsive stimulation or enhanced nutrition had higher mean cognitive, language, motor and social-emotional scores at 12 months of age. However, no additive benefits were found by combining responsive stimulation and enhanced nutrition. Overall, the authors concluded that the interpersonal communication approach was an effective strategy to deliver psycho-social interventions for early childhood development and can be used to deliver integrated health programs. Similarly, evaluation of the Saving Mothers Giving Life (SMGL) program in Zambia concluded that interpersonal communication activities and birth plan distribution were the most effective components of the program, which aimed to improve maternal and newborn health outcomes. [10] The communication component of the project distributed a birth plan tool, trained influential leaders to be "Change Champions", supported community mobilization and interpersonal communication by the Change Champions, and broadcasted a safe motherhood radio advert. Results from a mixed methods study utilizing a rapid household survey and qualitative in-depth interviews showed that 72.4 percent of respondents (n=152) reported that the SMGL campaign had an impact on their behavior, including saved money while pregnant (47 percent), attended ANC early in their pregnancy (35 percent), and delivered or planned to deliver in a health facility (32 percent) (statistics not presented in the report).

The social relationships between outreach workers and beneficiaries was only addressed specifically in one study, but findings from that study indicate that the relationship is just as important as the message being conveyed and was shown to influence the use of services and other outcomes. [14] In this study, the USAID SANTÉNET2 program in Madagascar trained community health volunteers (CHVs) to counsel women on childhood illnesses and family planning. Results from a final external evaluation of the project using semi-structured interviews with beneficiaries and key stakeholders found that a caretaker

who had a relational problem with the CHV was 40 percent less likely to use the CHV services than a caretaker who was on good terms with the CHV (statistics not presented in the report).

Media and social marketing were used by 24 programs, including seven programs focused on co-occurring health outcomes/behaviors, [3,4,8,15,22,28,29] and 17 programs focused on health outcomes along the life-cycle. [1,2,5,9-12,18,19,21,23,25,27,31,32,35,36] Several of those studies used media as a stand-alone intervention, with mixed results. One such study used radio exclusively through a 35-month long radio campaign on community radio stations in Burkina Faso. [27] The intervention targeted women of reproductive age and caregivers of children under five years old, covering a wide range of behaviors in maternal, newborn and child health (MNCH), malaria and sanitation. The radio campaign included 1-minute spots aired 10 times per day and interactive 2-hour programs broadcast 5 days per week. A midline evaluation at 20-months using a repeated cross-sectional, cluster randomized study of 5,182 mothers of young children found mixed results for effects on behavior. For example, statistical analyses based on cluster-level summaries using a difference-in-difference (DiD) approach, adjusted for imbalances between arms at baseline, found some evidence of improved self-reported care seeking for diarrhea (adjusted DiD, 17.5 percentage points; 95% CI, 2.5 to 32.5; p=.03), antibiotic treatment for fast/difficult breathing (adjusted DiD, 29.6 percentage points; 95% CI, 3.5 to 55.7; p=.03), and saving money during pregnancy (adjusted DiD, 12.8 percentage points; 95% CI, 1.4 to 24.2; p=.03). There was no evidence for an effect on other behaviors. The authors proposed that a dose-response relationship might explain why changes were seen in some behaviors and not others given the varying intensity of messaging for different behaviors.

Qualitative evaluation of an entertainment-education based audio-drama on HIV/AIDS and gender-based violence prevention program in Botswana, Namibia and Swaziland, found some changes in knowledge, attitudes and behaviors. [3] The SBCC intervention consisted of an eight-episode audio-drama, along with group discussion, that begins with a focus on conscious knowledge and individual attitudes, and moves on to social norms in later episodes in line with the "CASCADA" (conscious knowledge, attitudes, subjective norms, intention to change, agency, discussion and action) behavior change model that guided the intervention design. Results from the qualitative study showed that most participants (85/108) reported some change as a result of the intervention. Some described changes in early steps of the CASCADA model of behavior change, such as knowledge and attitudes, while others discussed changes in later steps, such as personal agency, discussion of change and actual change around the issues of gender-based violence, women's rights and HIV risk behaviors.

Community-based approaches were used in two programs that addressed co-occurring health outcomes, specifically HIV/AIDS and substance abuse in Vietnam [28] and HIV/AIDS and TB in South Africa. [8] Among programs addressing health outcomes along the life-cycle, 18 used community-based approaches. [1,6,10,11,13,14,16,17,19,21,23,24,30-33,35,36] Community ownership emerged as a critical element of community-based approaches, especially in drug reduction programs that faced barriers of stigma and discrimination. [28] For example, Nguyen and colleagues (2015) used community mobilization to reduce intravenous drug use (IDU) and HIV prevalence among young men in Vietnam. [28] The intervention supported community-led design of intervention activities, which included development of a school curricula, drama, videos and games, parades, print materials, loudspeaker announcements,

establishment of an intervention center, media announcements and testimonials from current and former drug users. Results from pre/post cross-sectional surveys in one intervention commune and one control commune found more accepting social attitudes; the percentage of participants who agreed with the statement "distributing clean needles and syringes to injecting drug users is acceptable to the local authority and people" increased by 12.7 percentage points (from 50.6 percent to 63.3 percent) in the intervention commune, but decreased by 9.4 percentage points in the comparison commune (Ratio of prevalence ratios (assessment vs. baseline) 1.6, CI 1.3-1.9, p<.001). HIV prevalence (determined by laboratory serum testing) decreased in both communities, albeit slightly more in the intervention commune (2.3 percent to 0 percent) (ratio not available). Although the intervention was designed with a control community, HIV prevention and risk reduction interventions implemented by another development organization in the control community made comparisons between intervention and control more difficult to assess.

This community ownership was also important in life-cycle based health outcomes. For example, authors of a review of malaria in pregnancy programs in Malawi, Senegal and Zambia noted the need for community ownership if community-based approaches are to be effective. [30] The review found that community engagement has been used as part of a comprehensive set of interventions for malaria in pregnancy including the use of community groups to raise awareness about malaria in pregnancy, improve care-seeking and refer women for ANC. Unfortunately, the review did not find formal evaluation of the community-based approaches, but anecdotal feedback from stakeholders suggested that improved use of insecticide treated nets was attributable to the community-based interventions.

Group-based approaches were used by two studies examining co-occurring health outcomes, [3,15] and five studies focused on life-cycle health outcomes. [9,11,13,21,26] One of these studies aimed to increase social capital as a means to improve health and governance issues in two post-conflict communities of Nicaragua. [21] The project did this through a series of leadership training workshops; community radio program, community campaigns, educational courses and mural paintings; and outreach to motivate participation and trust among community members. Evaluation of the project using baseline (n=198) and endline (n=210) household surveys with a systematic random design methodology in the two intervention communities and one control community showed positive and negative correlations between social capital indicators and individual health behaviors. For example, in the intervention communities, participation in groups was positively associated with the use of modern medicine to treat children's respiratory illnesses (OR 2.88, p=.022) as well as doing something in the community to improve children's nutrition (OR 1.86, p=.052) and getting along with others was positively correlated with regular monitoring of child development (OR 4.26, p=.019). Conversely, trust in others was negatively associated with individual health behaviors, although the relationship was insignificant, with the exception of monitoring a child's growth and development (OR 0.317, p=.014).

Only four programs used **internet/digital media/mobile health approaches** [4,11,12,19] . For example, a final evaluation of the MaMoni project in Bangladesh, based on a desk review, key informant interviews, field visits and analysis of survey and project monitoring data, identified mobile phones as playing a pivotal, if inadvertent, role in the project. The project used mobile phones to supervise CHWs, coordinate obstetric emergency transport, get help diagnosing birth difficulties and prepare facilities for

arrival and deliver messages to pregnant women and new mothers. [19] See Case Study 1 for an additional program example that used the internet to deliver counseling on substance abuse, violence and HIV.

No studies used **behavioral economics** as the primary or major component of the intervention. However, vouchers were used as part of one interpersonal communication intervention that addressed substance abuse and HIV/AIDS among IDU in the cross-border area between China and Vietnam through peer educator outreach. [22]

When programs used a **combination of SBCC approaches**, the mostly commonly used approaches were interpersonal communication, community-based approaches and media and social marketing. These three categories were used in 10 studies. [1,10,15,19,22,28,29,31,32,36] Three studies used community-based approaches, group-based approaches and media and social marketing. [11,15,21] For example the Mabrouk! Initiative was a comprehensive, multipronged intervention implemented using three SBCC approaches (community-based, group-based, media and social marketing), with interventions in mass media, publicity events, community mobilization and empowerment, social networking, and client-provider counseling support. See Case Study 2 for further details.

CASE STUDY 2: A LIFE-CYCLE INTEGRATION MODEL INTERVENTION – MABROUK! [1]

Rationale for an integrated health approach

The *Mabrouk!* (Congratulations) Initiative is an activity under the larger Communications for Healthy Living (CHL) program designed to positively impact maternal and child health and family planning in Egypt using an integrated health approach. The *Mabrouk!* Initiative recognized that disseminating health information to young married couples prior to childbirth was an important opportunity to influence the health cycle. By reaching couples early in the life-cycle, the *Mabrouk!* Initiative promoted lifelong healthfulness for them and future generations. The life stage approach recognizes that stages are transitional and influenced by family and community dynamics. Therefore, early adoption of healthy behaviors can inspire sustained practice of those behaviors throughout the greater community.

Intervention

The *Mabrouk!* Initiative was a comprehensive, multipronged intervention implemented with SBCC approaches including mass media, publicity events, community mobilization and empowerment, social networking, and client-provider counseling support. One key part of the initiative centered on mass public weddings that were hosted by popular television personalities and covered in the media as entertainment education. Other SBCC components of the *Mabrouk!* Initiative included books, posters, flipcharts, fliers, magazine inserts, television spots, outreach activities, community leader trainings, home visits, and classes. The initiative launched a national comprehensive package of messages related to antenatal care, safe delivery, postpartum care, family planning initiation, safe interval between births, and infant health that were meant to guide newlywed couples through health experiences and improve readiness.

Theoretical basis

CHL was developed based on the iterative, evidence-based P-Process framework. This framework, developed by Johns Hopkins University Center for Communication Programs (CCP), is based on best practices and takes into account situation and audience analyses, strategic design and development, implementation, monitoring, and evaluation. The CHL program also incorporates principles of supply and demand, integrated marketing communication, and multi-sectoral partnerships and uses community-based, cross-cutting, and life-cycle approaches throughout its activities. The *Mabrouk!* Initiative in particular used cross-cutting communication through various channels to generate demand for family health services and support positive health behaviors.

Evaluation and key results

To evaluate how much exposure to CHL's communication activities contributed to improved national outcomes, researchers used propensity-score matching to statistically control for all other variables. This established valid treatment and control groups that could be used to assess program impact.
Results showed that the *Mabrouk!* Initiative, and its extension into hard-to-reach populations with the Community Health Program, contributed to overall improvements in maternal and child health and family planning outcomes. Exposure to family planning messages resulted in a 12 percent difference in whether interviewees currently used modern contraceptive methods and an 11.5 percent difference in whether they used family planning after the birth of their first child ($p=<.001$). Other improvements include women having four or more antenatal visits, starting family planning within two months of delivery, and having birth intervals of 33 months or longer. The community health package also made long-term improvements in service provision and quality of life.

Challenges

Upon completion of CHL, one of the family planning program's remaining challenges was how to retain clients by reducing use failure and discontinuation due to side effects and health concerns. Another challenge involved audience fragmentation due to the growth of satellite viewership, which limits the ability of advertisers to reach the same level of viewership as in the past. Finally, sustainability following the end of the program had to

be addressed by ensuring the formalization of a coordinating strategic health communication committee or unit to oversee planning, budgeting, and implementation.

Implications

The overall improvements in maternal and child health and family planning resulting from the *Mabrouk!* Initiative demonstrate the positive potential of an integrated approach to health programs. Future programs using integrated SBCC can employ similar strategies such as building successful multi-sectoral networks between public, private and NGO partners to facilitate scale-up and increase reach. The life-stage approach used by the *Mabrouk!* Initiative highlights the household as a primary producer of health and allowed health messages to be disseminated in an integrated context.

DISCUSSION

This review of the literature was conducted to understand the nature and scope of SBCC approaches being used in integrated health programs. Specifically, the review set out to: (1) assess which SBCC approaches have been utilized in integrated health programs; and (2) examine the associated knowledge, attitudinal, behavioral and health outcomes.

Of the 36 studies identified, only 14 studies were from peer-reviewed journals. Twenty-one studies were from USAID's Development Experience Clearinghouse and were mostly comprised of external evaluations of programs to answer specific questions for the donor. While these reports were useful in identifying programs that are utilizing SBCC to address integrated health outcomes, the data on health outcomes were limited.

Although 20 of the 36 studies addressed four or more health outcomes, rarely did the authors specifically discuss the topic of integration, or integration using SBCC, directly, and as such conclusions drawn from the review are based on inferences from individual studies and observable patterns. In particular, the review revealed that integration of health outcomes tended to follow two major models: "co-occurring" (that is where behaviors and/or health conditions tend to occur together) and "life-cycle" (in which health conditions that occur at a particular stage in an individual's life are addressed together). The vast majority of studies were focused on health outcomes across a particular stage in the life-cycle, most often the 1000-day cycle of pregnancy, neonatal and early childhood. Many of the co-occurring integration programs addressed substance abuse, HIV/AIDS, TB and violence, and were mostly based in Asia.

Of those studies that did discuss integration explicitly, the critical role of partnerships in synchronized and harmonized integrated programs was stressed – such as those between national reproductive health and malaria control programs [30] and law enforcement and public health. [22,29] One study also highlighted the efficiency of an integrated health model, in recognition of the opportunity for cost-saving by coordinating messages and activities for families. [26] The dose-response relationship identified in a media-only intervention that targeted multiple health outcomes [27] suggests that strategically balancing messages in integrated health programs should be explicitly considered in program design based on the priority of outcomes or level of difficulty in changing the behavior.

The review showed that using a combination of SBCC approaches was regarded as a key design factor to increase the effectiveness of programs. Community-based approaches, interpersonal communication approaches and media and social marketing were the most commonly used and these three approaches were frequently used together. For example, advocacy and mobilization were identified as important complementary interventions in programs using interpersonal communication in order to build community support and ownership of the project, especially when the intervention is targeted at stigmatized populations or behaviors. [28,29] The limitations of a media-only approach were highlighted in one study, [14] in which the authors speculated that the intervention had limited impact as a stand-alone mass media approach without interpersonal communication activities, though the cost-prohibitive nature of these activities was highlighted as a barrier for large-scale programs. [27] Among those studies

using multiple approaches, the importance of consistent messaging across approaches and channels was emphasized.

Recommendations

Findings from this review suggest the need for more explicit examination and greater discussion in the literature of the advantages and challenges of implementing integrated health programs using SBCC approaches in order to facilitate dissemination of good practices and lessons learned. It would be helpful to establish the evidence base in the cost-effectiveness of integrating health outcomes, with careful analysis of the differentiating impact on behavioral and health outcomes. As part of this research, it would be beneficial to explore whether effectiveness is affected by the integration model (e.g. whether the health outcomes being integrated are co-occurring, life-cycle based, household-based etc.).

Integrated programs that are using SBCC should consider how different SBCC approaches could be used to create a package of interventions that are harmonious and complementary, while ensuring the consistency and clarity of messages being delivered across different interventions. Messages should also be carefully balanced based on strategic analysis of the priority of health outcomes and difficulty involved in changing behaviors.

Limitations

The authors of this scoping and rapid review acknowledge limitations in the search and inclusion of articles in this review. While a broad and exhaustive literature search was conducted using PubMed, POPLINE, websites of organizations identified as likely to have implemented SBCC-based integrated programs, and USAID's Development Experience Clearinghouse, the authors acknowledge the possibility that not all peer-reviewed articles and grey literature which meet the inclusion criteria were identified. Inclusion in the review was dependent on articles and literature being written in such a way that integration of SBCC was illustrated and explicit.

It should be noted that synthesizing the evidence in this review was difficult due to a number of constraints. The type of information available in each study varied greatly, particularly between peer-reviewed and grey literature. For some factors, information from the studies was unclear or unavailable. For example, information on specific target audiences, intervention descriptions, outcomes and results were not always provided. In such instances, information was extracted as much as possible based on the available information. While many studies demonstrated changes in outcomes, these were usually based on the program as a whole, which often included a variety of approaches in addition to SBCC. Little data was available on outcomes in relation to exposure to SBCC components. It was also difficult to assess the level of integration occurring in some programs. For example, while an overall project may address multiple health issues, specific activities or campaigns may focus only on one health issue, with simultaneous or consequential campaigns addressing different health outcomes.

Because of the wide variation in types of studies, this review did not attempt to assess the rigor of each study and as such, cannot draw specific conclusions on the body of evidence related to the effectiveness

of SBCC approaches in integrated programs. Finally, it was not possible to ascertain whether integrated SBCC programs are more effective than non-integrated programs as this was not a comparison study.

APPENDICES

Appendix 1: List of organizations contacted for key informant interviews

Representatives from the following organizations were interviewed:

- CHAI
- Family Care International
- FHI360
- Jhpiego
- Johns Hopkins University Center for Communication Programs (CCP) - K4Health project
- Manoff Group
- Maternal and Child Survival Program (MCSP)
- Pathfinder
- United Nations Commission on Life Saving Commodities (UNCoLSC)
- United Nations Children's Fund (UNICEF)
- World Health Organization (WHO)

Appendix 2: Key Informant Interview Question Guide

Phone Script

Hello! Thank you for taking the time to speak with us today.

Our team is interested in gathering information from organizations that have implemented or are interested in developing demand generation or communication programs for integrated reproductive, maternal, newborn and child health (RMNCH) programs where the integration has happened across 2 or more of the health outcomes under RMNCH.

We would like to ask for about 20 minutes of your time to help inform a systematic literature review which will ultimately lead to the development of guidelines for effective communication programs in integrated health.

Would it be ok if I recorded our conversation today? This is only for the purpose of supplementing the brief hand-written notes that I will be taking during the phone call and will be erased after this project is complete.

Please give us your name, position and organizational affiliation

1. The term "Integration" can be described in many different ways. How would your organization define integration?

2. Has your organization designed and/or implemented communication programs that have addressed 2 or more health areas from RMNCH?

a. If yes, ask:

i. Could you briefly tell me a bit about the work?

ii. What types of communication approaches were used? And what types of media were used?

iii. How does your organization evaluate their communication programs in an integrated health project? What is considered an effective outcome of this type of work?

b. If no, ask:

i. Has your organization considered communication programs that integrate across health areas?

3. Has your organization published any work related to demand generation or communication programs for integrated RMNCH programs? If not published, is there a place where we can find documentation about this work? Would you be willing to share any relevant reports, case studies, etc.?

4. Has your organization done work in service delivery, advocacy or any other domain related to communication that was integrated across health areas, especially RMNCH?

a. If yes, ask: could you briefly tell me a bit about the work?

5. Strategic communication and integrated health programs are all defined in different ways. As we continue our search what might be some search terms you think we should use to find SBCC or strategic communication programs for integrated health programs?

6. From our search, we are hoping to help those interested in developing integrated communication programs better understand how to effectively develop, implement and evaluate these types of programs? What information do you think will be of most interest or useful for your organization as you plan to develop communication strategies for integrated health programs? This information will help guide our efforts during the search and will help us to better frame the guidelines in a manner that will be useful for various organizations.

7. Are there other organizations/ people you suggest we contact to learn more about this topic?

Thank you so much for speaking with me today. If you would like, we can share the notes from our conversation with you once they are prepared.

Appendix 3: Search terms and results

Search on May 11, 2015. Filters: English, year 2000 and after, human only (NOT (animals[mh] NOT humans[mh]))

#	Term	Results
	IPC or Counseling	
1	("interpersonal communication"[tiab] OR counseling[tiab] OR counselor[tiab]) NOT (animals[mh] NOT humans[mh])	176,555
	Social/Behavior change	
2	("social change"[tiab] OR "behavior change"[tiab] OR "behaviour change"[tiab])) NOT (animals[mh] NOT humans[mh])	11,010
	Other SBCC terms	
3	(advocacy[tiab] OR "capacity building"[tiab] OR "capacity strengthening"[tiab] OR "cellphone"[tiab] OR "community mobilization"[tiab] OR dance[tiab] OR "demand generation"[tiab] OR "edutainment"[tiab] OR ehealth[tiab] OR entertainment[tiab] OR "folk media"[tiab] OR "home visits"[tiab] OR "household outreach"[tiab] OR "information communication technology"[tiab] OR "information technology"[tiab] OR "communication technology"[tiab] OR internet[tiab] OR "marketing of health services"[tiab] OR "health service marketing"[tiab] OR "health marketing"[tiab] OR media[tiab] OR "mobile health"[tiab] OR music[tiab] OR outreach[tiab] OR "digital assistant"[tiab] OR "peer communication"[tiab] OR "peer to peer"[tiab] OR "peer support"[tiab] OR "physician-patient interaction"[tiab] OR "patient interaction"[tiab] OR "pico projector"[tiab] OR radio[tiab] OR "text message"[tiab] OR "text messaging"[tiab] OR "texting"[tiab] OR "social franchising"[tiab] OR "social marketing"[tiab] OR "social movement"[tiab] OR "social networks"[tiab] OR "social media"[tiab] OR "social mobilization"[tiab] OR "story telling"[tiab] OR "strategic communication"[tiab] OR telemedicine[tiab] OR Television[tiab] OR "t.v."[tiab] OR TV[tiab] OR Theater[tiab]) NOT (animals[mh] NOT humans[mh])	423,671
	All LMIC terms	
4	("developing countries"[mh] OR "developing countries"[tiab] OR "developing country"[tiab] OR "developing world"[tiab] OR "underserved countries"[tiab] OR "lower income countries"[tiab] OR "lower income country"[tiab] OR "low income country"[tiab] OR "low income countries"[tiab] OR "middle income country"[tiab] OR "middle income countries"[tiab] OR "LMIC"[tiab] OR "low middle income countries"[tiab] OR "low middle income country"[tiab] OR "transitional economy"[tiab] OR "transitional economies"[tiab] OR "less developed economies"[tiab] OR "emergent countries"[tiab] OR "emergent nation"[tiab] OR "underdeveloped country"[tiab] OR "underdeveloped countries"[tiab] OR "third world"[tiab] OR Afghanistan[tiab] OR Bangladesh[tiab] OR Benin[tiab] OR "Burkina Faso"[tiab] OR Burundi[tiab] OR Cambodia[tiab] OR "Central African Republic"[tiab] OR Chad[tiab] OR Comoros[tiab] OR "Democratic Republic of the Congo"[tiab] OR "Republic of the Congo"[tiab] OR Congo[tiab] OR Eritrea[tiab] OR Ethiopia[tiab] OR Gambia[tiab] OR Guinea[tiab] OR "Guinea-Bissau"[tiab] OR Haiti[tiab] OR Kenya[tiab] OR "Democratic People's Republic of Korea"[tiab] OR "North Korea"[tiab] OR Kyrgyzstan[tiab] OR Liberia[tiab] OR Madagascar[tiab] OR Malawi[tiab] OR Mali[tiab] OR Mozambique[tiab] OR Myanmar[tiab] OR Burma[tiab] OR Nepal[tiab] OR Rwanda[tiab] OR Sierra Leone[tiab] OR Somalia[tiab] OR Tajikistan[tiab] OR Tanzania[tiab] OR Togo[tiab] OR Uganda[tiab] OR Zimbabwe[tiab] OR Angola[tiab] OR Armenia[tiab] OR Belize[tiab] OR Bhutan[tiab] OR Cameroon[tiab] OR "Cape Verde"[tiab] OR "Ivory Coast"[tiab] OR "Côte d'Ivoire"[tiab] OR Djibouti[tiab] OR Egypt[tiab] OR "El Salvador"[tiab] OR Fiji[tiab] OR Georgia[tiab] OR Ghana[tiab] OR Guatemala[tiab] OR	372,419

	Guyana[tiab] OR Honduras[tiab] OR Indonesia[tiab] OR India[tiab] OR Iraq[tiab] OR Nigeria[tiab] Kiribati[tiab] OR Kosovo[tiab] OR Laos[tiab] OR Lesotho[tiab] OR "Marshall Islands"[tiab] OR Mauritania[tiab] OR Micronesia[tiab] OR Moldova[tiab] OR Mongolia[tiab] OR Morocco[tiab] OR Nicaragua[tiab] OR Pakistan[tiab] OR "Papua New Guinea"[tiab] OR Paraguay[tiab] OR Philippines[tiab] OR Samoa[tiab] OR "São Tomé and Principe"[tiab] OR Senegal[tiab] OR "Solomon Islands"[tiab] OR "Sri Lanka"[tiab] OR Sudan[tiab] OR "South Sudan"[tiab] OR Swaziland[tiab] OR Syria[tiab] OR Timor-Leste[tiab] OR "East Timor"[tiab] OR Tonga[tiab] OR Turkmenistan[tiab] OR Tuvalu[tiab] OR Ukraine[tiab] OR Uzbekistan[tiab] OR Vanuatu[tiab] OR Vietnam[tiab] OR Palestine[tiab] OR "West Bank"[tiab] OR Gaza[tiab] OR Yemen[tiab] OR Zambia[tiab]) NOT (animals[mh] NOT humans[mh])	
	All combined terms	
5	((((1) AND (2)) OR (3)) AND (4)) NOT (animals[mh] NOT humans[mh]) (((("interpersonal communication"[tiab] OR counseling[tiab] OR counselor[tiab]) AND ("social change"[tiab] OR "behavior change"[tiab] OR "behaviour change"[tiab])) OR (advocacy[tiab] OR "capacity building"[tiab] OR "capacity strengthening"[tiab] OR "cellphone"[tiab] OR "community mobilization"[tiab] OR dance[tiab] OR "demand generation"[tiab] OR "edutainment"[tiab] OR ehealth[tiab] OR entertainment[tiab] OR "folk media"[tiab] OR "home visits"[tiab] OR "household outreach"[tiab] OR "information communication technology"[tiab] OR "information technology"[tiab] OR "communication technology"[tiab] OR internet[tiab] OR "marketing of health services"[tiab] OR "health service marketing"[tiab] OR "health marketing"[tiab] OR media[tiab] OR "mobile health"[tiab] OR music[tiab] OR outreach[tiab] OR "digital assistant"[tiab] OR "peer communication"[tiab] OR "peer to peer"[tiab] OR "peer support"[tiab] OR "physician-patient interaction"[tiab] OR "patient interaction"[tiab] OR "pico projector"[tiab] OR radio[tiab] OR "text message"[tiab] OR "text messaging"[tiab] OR "texting"[tiab] OR "social franchising"[tiab] OR "social marketing"[tiab] OR "social movement"[tiab] OR "social networks"[tiab] OR "social media"[tiab] OR "social mobilization"[tiab] OR "story telling"[tiab] OR "strategic communication"[tiab] OR telemedicine[tiab] OR Television[tiab] OR "t.v."[tiab] OR TV[tiab] OR Theater[tiab])) AND ("developing countries"[mh] OR "developing countries"[tiab] OR "developing country"[tiab] OR "developing world"[tiab] OR "underserved countries"[tiab] OR "lower income countries"[tiab] OR "lower income country"[tiab] OR "low income country"[tiab] OR "low income countries"[tiab] OR "middle income country"[tiab] OR "middle income countries"[tiab] OR "LMIC"[tiab] OR "low middle income countries"[tiab] OR "low middle income country"[tiab] OR "transitional economy"[tiab] OR "transitional economies"[tiab] OR "less developed economies"[tiab] OR "emergent countries"[tiab] OR "emergent nation"[tiab] OR "underdeveloped country"[tiab] OR "underdeveloped countries"[tiab] OR "third world"[tiab] OR Afghanistan[tiab] OR Bangladesh[tiab] OR Benin[tiab] OR "Burkina Faso"[tiab] OR Burundi[tiab] OR Cambodia[tiab] OR "Central African Republic"[tiab] OR Chad[tiab] OR Comoros[tiab] OR "Democratic Republic of the Congo"[tiab] OR "Republic of the Congo"[tiab] OR Congo[tiab] OR Eritrea[tiab] OR Ethiopia[tiab] OR Gambia[tiab] OR Guinea[tiab] OR "Guinea-Bissau"[tiab] OR Haiti[tiab] OR Kenya[tiab] OR "Democratic People's Republic of Korea"[tiab] OR "North Korea"[tiab] OR Kyrgyzstan[tiab] OR Liberia[tiab] OR Madagascar[tiab] OR Malawi[tiab] OR Mali[tiab] OR Mozambique[tiab] OR Myanmar[tiab] OR Burma[tiab] OR Nepal[tiab] OR Rwanda[tiab] OR Sierra Leone[tiab] OR Somalia[tiab] OR Tajikistan[tiab] OR Tanzania[tiab] OR Togo[tiab] OR Uganda[tiab] OR Zimbabwe[tiab] OR Angola[tiab] OR Armenia[tiab] OR Belize[tiab] OR Bhutan[tiab] OR Cameroon[tiab] OR "Cape Verde"[tiab] OR "Ivory Coast"[tiab] OR "Côte d'Ivoire"[tiab] OR Djibouti[tiab] OR Egypt[tiab] OR "El Salvador"[tiab] OR Fiji[tiab] OR Georgia[tiab] OR Ghana[tiab] OR Guatemala[tiab] OR	1,284

	Guyana[tiab] OR Honduras[tiab] OR Indonesia[tiab] OR India[tiab] OR Iraq[tiab] OR Nigeria[tiab] Kiribati[tiab] OR Kosovo[tiab] OR Laos[tiab] OR Lesotho[tiab] OR "Marshall Islands"[tiab] OR Mauritania[tiab] OR Micronesia[tiab] OR Moldova[tiab] OR Mongolia[tiab] OR Morocco[tiab] OR Nicaragua[tiab] OR Pakistan[tiab] OR "Papua New Guinea"[tiab] OR Paraguay[tiab] OR Philippines[tiab] OR Samoa[tiab] OR "São Tomé and Principe"[tiab] OR Senegal[tiab] OR "Solomon Islands"[tiab] OR "Sri Lanka"[tiab] OR Sudan[tiab] OR "South Sudan"[tiab] OR Swaziland[tiab] OR Syria[tiab] OR Timor-Leste[tiab] OR "East Timor"[tiab] OR Tonga[tiab] OR Turkmenistan[tiab] OR Tuvalu[tiab] OR Ukraine[tiab] OR Uzbekistan[tiab] OR Vanuatu[tiab] OR Vietnam[tiab] OR Palestine[tiab] OR "West Bank"[tiab] OR Gaza[tiab] OR Yemen[tiab] OR Zambia[tiab]) NOT (animals[mh] NOT humans[mh])	

Appendix 4: Data extraction forms

Form 1

I. Author's name and year has already been imported into this table. Please check to make sure the information is accurate. The rest of the columns will need to redone. Please see instructions below for Study Type; Countries and Setting; Target Population; SBCC Approaches; Health Outcome.

II. Countries and Setting: State the country where the intervention took place. Setting denotes urban/rural; semi-urban/semi-rural; at the community or at health facility, or any other setting specifically mentioned in the article.

III. Study Type: If evaluation was conducted indicate the type of evaluation (specific study design; anecdotal/lessons learned). If not sure, then include as much information about the study design and methodology from the articles and we can label it later.

IV. Target Population/Audience: Women/Men/ Pregnant Women/Adolescents & youth/Family members/Community Health Providers/Doctors/Nurses/Policy Makers/Sex Workers/Men who have sex with men/Injecting drug users/Urban audience/Rural audience/Opinion Leaders/Community Leaders/Teachers/Peer educators/Police

V. SBCC Approaches: Categories of Strategic communication/Behavior change communication/Social and behavior change communication approaches:

Community-based approaches
Community engagement and interventions
Community Mobilization
Community Outreach
Social Mobilization
Social Movements and Empowerment
Positive Deviance/Role Models

Interpersonal Communication approaches
Client-Provider/Physician-patient interaction
Community/Frontline Health Workers/Midwives/Traditional Birth Attendants/Social Franchising
Counseling
Home Visits/Household Outreach
Peer Educators/Peer-to-Peer Communication

Group-based approaches
Social Capital/Social Support
Social Networks
Social Norms/Normative Change

Behavioral Economics
Financial Incentives/Vouchers
Non-financial Incentives and Motivators

Media and Social Marketing
Advocacy
Mass Media - Print media (magazines, newspapers, etc.); Radio; Television/ Video
Social Marketing/Marketing Health Services
Strategic/Persuasive Communication
Entertainment –Education (Education-Entertainment)/ "Edutainment"
The following is an illustrative list of interventions that should be coded as EE and within parenthesis mention which of the following was specifically mentioned in the article. Indicate multiple interventions separated by commas.

- Story telling
- Theatre
- Film
- Puppet shows
- Dance
- Music
- Art
- Folk media

Internet/Digital Media/Mobile Health
mHealth/cellphone (smartphone/feature phone/tablet/PDA/other mobile devices, SMS, MMS, IVR)
Helpline, hotlines
eHealth/eLearning/websites
Pico projector
Information Communication Technology
Digital Media
Social Media

VI. Health conditions: Interventions that include two or more health conditions from the underlined broader categories of health areas should be included.

<u>Pregnancy/Fertility</u>

- Severe bleeding (pregnancy related)
- Complications from delivery
- Preeclampsia/ Eclampsia
- Postpartum hemorrhage
- Sepsis
- Anemia (pregnancy related)
- Obstetric fistula

<u>Nutritional deficiency</u>

- Anemia
- Vit A deficiency
- Vit D deficiency

<u>Injury</u>

- Road injury
- Drowning

<u>Violence</u>

- Domestic violence
- Intimate partner violence (IPV)
- Gender-based violence (GBV)

11.

<u>Suicide/depression</u>
<u>Pertussis</u>
<u>Urinary Tract Infection</u>

• Stunting/wasting Neonatal • Low birth weight • Preterm infant (restricted fetal growth) • Newborn sepsis • Hypothermia • Jaundice • Asphyxia MMR/Vaccine • Measles • Mumps • Rubella • Rotavirus	Reproductive Tract Infection Respiratory infections (Acute and Lower) Respiratory distress syndrome Substance abuse (alcohol, drugs, Fetal Alcohol Syndrome (FAS)) Polio Cervical cancer Diarrhea HIV/STI/STD Tetanus Meningitis Pneumonia TB Malaria

Form 2

I. First Author and Year has been imported. Please double check to ensure that only the first author and year have been extracted accurately & list author and year only once in the row

II. Intervention Description: Provide relevant information about what the intervention was and how it was implemented. If report/article provides extensive information, try to use bullet points.

III. Outcome Categories (use one row per outcome category). Indicate which of the following outcome categories is mentioned in the article. Use a separate row for each outcome category

- Client Knowledge, Awareness, Attitudes
- Provider Knowledge, Awareness, Attitudes
- Client Behavioral Outcomes (Sub categories – Personal/household behaviors and Utilization of services/Service uptake)
- Provider Behavioral Outcomes
- Health Outcomes
- Social Outcomes
- Quality Outcomes (can this be a sub category of the provider behavioral outcomes?)

IV. Outcome description and results: In this column, state the actual outcomes and whether they were impacted or not impacted. For instance, exclusive breastfeeding of infants increased; ANC visits increased; knowledge and attitudes about anemia prevention strategies improved; iron-deficiency

among pregnant women reduced; quality of provider communication improved; there was no significant difference in maternal mortality, etc.

Extract the detailed description of the change/outcomes improved/increased/reduced/no change. If there is a summary of the data in an article, then extract the data/results. For instance, 84% were able to recall at least 5 campaign messages; 77% said the campaign influenced their behavior; there was a 15% increase in the use of modern contraceptive methods, etc. Ensure that the description of the outcomes clearly corresponds to the specific outcome category in the previous column with one row per outcome. Extract more rather than less at this time as we may find we need more details.

V. Conclusions/implications for SBCC programming: Summarize the conclusion section of the study/project in a bulleted list. Do not repeat the Results here. If the conclusion section in the article/report is written in a concise way, then abstract more rather than less. Include recommendations or implications for SBCC programming as provided by the authors.

Appendix 5: Results summary table

No	First author, year	Countries and Setting	Study type	Target Population/Audience	SBCC Category	SBCC Intervention	Health Outcomes	Integration model
1	Bashour, 2008	Syria	Quantitative: RCT - 3 arm study	Women who had recently given birth	Interpersonal Communication	Interpersonal communication - Home visits/household outreach	Pregnancy/Fertility (Postpartum morbidity); Neonatal (infant morbidities); Vaccine (infant immunization); nutritional deficiency (exclusive breastfeeding)	Life-cycle
2	Brune, 2009	Nicaragua	Quantitative: The study was based on a baseline and a two-year follow-up household surveys implemented in three Nicaraguan communities, two of which received the social capital intervention and one similar community that served as a control without the intervention.	post-conflict Nicaraguan communities with low social capital	Community-based approaches; Group-based approaches; Media and Social Marketing	Community based approaches - community outreach, social movement and empowerment; Media and Social Marketing - radio; Group based approaches - social capital/social support, social networks	Pregnancy/Fertility - family planning; Neonatal; Vaccine; Respiratory infection, pneumonia	Life-cycle
3	Cameron, 2014	Botswana, Namibia and Swaziland	Mixed Methods: Cluster randomised controlled trial (CRCT). In addition to quantitative measurement of the trial impact, to supplement their understanding of how the BVV intervention affected participants, they used the qualitative most significant change (MSC) technique to collect and analyse stories from community members who participated in the BVV discussion groups. This paper describes the findings from the narrative approach, in the light of a behavior change model.	Young women and men	Group-based approaches; Media and Social Marketing	Media and social marketing - radio drama, entertainment education; Group based approaches - listener group discussions	HIV/AIDS/STD; Violence - Gender based violence, intimate partner violence	Co-occurrence
4	Des Jarlais, 2007	China, Vietnam	Quantitative: Serial cross-sectional surveys with HIV testing of community recruited IDU were conducted at baseline (before implementation) and 6, 12, 18, 24 and 36 months post-baseline.	injecting drug users (IDU) in the crossborder area between China and Vietnam.	Community-based approaches; Interpersonal Communication; Media and Social Marketing; Behavioral Economics	Community based approaches - community engagement; Interpersonal communication - peer educator outreach combined with large-scale distribution of sterile injection equipment. Media and social marketing - Advocacy; Behavioral economics - vouchers	Substance abuse, HIV/STI/STD	Co-occurrence
5	Firestone, 2014	Belize, Guatemala, El Salvador, Nicaragua, Panama, Costa Rica, and Mexico	Mixed Methods: Behavioral survey with respondent driven sampling and data extracted from PASMO's program monitoring system for this analysis	Central American men who have sex with men (MSM).	Interpersonal Communication; Media and Social Marketing; Internet/Digital Media/Mobile Health	Interpersonal communication - home visits/household outreach, client-provider interaction; Media and social marketing - print materials, Advocacy - to reduce stigma and discrimination; Internet/Digital Media/Mobile Health - eHealth cyber-educators	Substance abuse, Violence, HIV/STI/STD	Co-occurrence
6	Ngo, 2009	Vietnam - in communes characterized by high levels of drug use, a concentration of newly identified HIV cases and/or the highest recorded number of HIV cases among known IDUs in their respective province/city	Qualitative: Key informant interviews, focus group discussions, in-depth interviews, observation and intercept interviews with IDUs and other project stakeholders	Intravenous drug users, law enforcement officials, other key stakeholders	Interpersonal Communication; Media and Social Marketing; Community-based Approaches	Interpersonal communication approaches - peer education; Community-based approaches - community meetings; Media and social marketing - Advocacy, broadcasting on local media outlets	Substance abuse, HIV/STI/STD	Co-occurrence
7	Ngo, 2010	Vietnam - rural areas	Quantitative: A quasi-experimental design with pre-test (baseline just prior to the Government Social Franchise (GSF) launch) and post-test (one year following launch), with a control group. Monthly clinic records were analyzed. Household surveys of 1,181 CHS users and potential users were conducted prior to launch and then 6 and 12 months after implementing the GSF network. Regression analyses controlled for baseline differences between intervention and control groups. Study was designed to measure the extent to which use of RHFP and other health services at 38 franchised clinics in Da Nang and Khanh Hoa increased over a one year period following launch of the franchise model. Later 2 clinics were removed and 36 clinics participated.	women, their partners, other family members	Community-based Approaches; Media and Social Marketing	Media and social marketing - mass media, social franchising, social marketing, entertainment education; Community-based approaches - social mobilization, community mobilization	Pregnancy/Fertility -family planning, reproductive health; Other general health	Life-cycle

8	Nguyen, 2015	urban commune, northern Vietnam; Ha Tu (intervention site) and Cam Thinh (control site)	Quantitative: Cross-sectional survey, comparing pre and post in intervention (n=1) and control (n=1) commune	Males, 15-24 yrs	Community-based approaches; Interpersonal Communication; Media and Social Marketing	Community mobilization, Social mobilization, Positive deviance/Role models; Social Marketing, Mass media; Peer educators	HIV/AIDS; Substance abuse	Co-occurrence
9	Pasha, 2010	Argentina, Guatemala, India, Kenya, Pakistan, Zambia (low and middle-income countries)	Quantitative: Cluster randomized control trial	Pregnant women, community members, skilled birth attendants, providers at health facilities	Community-based approaches	Community based approaches - community mobilizations. Training of providers	Pregnancy/Fertility - perinatal mortality, maternal death or severe morbidity (including obstetric fistula, eclampsia and obstetrical sepsis). Neonatal - rates of stillbirth, 7-day neonatal mortality, 28-day neonatal mortality	Life-cycle
10	Radoff, 2013	Nicaragua, urban clinic in the RAAN region (but most participants were from a rural setting)	Mixed Methods: Cross-sectional pre-test post-test design to evaluate the intervention	Spanish- or Miskito-speaking, 15-44 yrs, pregnant or less than 6 months post-partum	Media and Social Marketing	Entertainment education (Radio)	Pregnancy/fertility; HIV/STD/STI; Violence; Neonatal	Life-cycle
11	Roman, 2014	Malawi, Senegal, Zambia	Qualitative: Systematic case study research methodology (to assess health systems and challenges)	Primary audience: Policy makers, MIP stakeholders; Secondary: Pregnant women	Community-based Approaches	Community engagement and interventions; Positive deviance	Malaria; Pregnancy/fertility; Neonatal	Life-cycle
12	Van Rossem, 2007	Zambia	Quantitative: Analysis of 2001-02 DHS data: Assessing reach and impact of social marketing program using 2001-02 DHS data. Data was collected using a three stage sampling design	Representative sample of Women, 15-49 yrs and Men, 15-59 yrs	Media and Social Marketing	Social Marketing - through radio and TV (mass media)	Pregnancy/fertility; HIV/AIDS	Life-cycle
13	Yousafzai, 2014	rural Sindh, Pakistan	Quantitative: Pragmatic community-based cluster-randomised eff ectiveness trial through the LHW programme, with a 2x2 factorial design, to study the effect of the delivery of a model of integrated early child development interventions with community health workers in a public sector eff ectiveness setting.	All children born in the study area between April 2009 and March 2010 were eligible for enrolment if they were up to 2.5 months old without signs of severe impairments.	Interpersonal Communication; Group-based Approaches	Interpersonal communication - Community health workers, home visits/household outreach; Group-based approaches - social support	Pregnancy/Fertility, Nutritional deficiency, Neonatal, MMR/Vaccine, TB, Diarrhea	Life-cycle
14	Project Hope, 2008	Province of Gaza, Mozambique	Mixed Methods: A midterm evaluation in February 2007 which included a KPC using LQAS and qualitative studies with mothers, TBAs and other relevant stakeholders of the project AND a final KPC using the 30 cluster methodology	Women of reproductive age; Children under 5 yrs	Interpersonal Communication, Community-based Approaches	Interpersonal communication - Community health workers; Community-based approaches - Community outreach	Pregnancy/Fertility, Nutritional deficiency, Neonatal, MMR/Vaccine, TB, Diarrhea; Pneumonia	Life-cycle
15	Howard et al., 2015	Vietnam, urban and rural settings	Mixed Methods: Midterm Evaluation - desk reviews, Key informant interviews	PLWHA, MSM, FSW, IDU; providers	Interpersonal Communication, Community-based Approaches	Community-based approaches - Community outreach; Interpersonal communication - flipcharts and cards used by HCWs, Counseling	HIV/AIDS; Substance abuse; TB	Co-occurrence
16	Mndaweni, 2015	South Africa, urban and rural	Mixed Methods: Cross-sectional study	Vulnerable populations; Youth/School children; Community leaders	Community-based Approaches; Media and Social Marketing	Mass media (Radio, TV. Print); EE (radio and TV); Community mobilization	Tuberculosis; HIV/AIDS	Co-occurrence
17	Ernst & Young LLP, 2015	14 regions in Senegal, urban and rural	Mixed Methods: Midterm Evaluation of USAID/Senegal's integrated program: mixed-method data collection approach which was inclusive of collecting qualitative and quantitative data concurrently to cross-validate and corroborate findings within the evaluation.	Policy makers; providers; communities; individuals	Group-based approaches; Media and Social Marketing	Group-based approaches - social norms; Media and Social Marketing - Mass media (print; Radio; television); Capacity-building	Pregnancy/Fertility - Family planning, Neonatal, MMR/Vaccine, TB, Diarrhoea, Malaria, HIV/STIs	Life-cycle

18	USAID Zambia, 2013	Zambia (rural parts of 4 districts)	Mixed Methods: Mixed-methods study utilizing a rapid household survey complemented with a qualitative component of in-depth interviews with Change Champions and District Maternal and Child Health (MCH) Coordinators.	Primary: Pregnant women, Mothers of young children (aged 0–6 months). Secondary: Male partners of pregnant women/mothers, Change Champions, traditional birth attendants/traditional healers, SMAGs, neighbourhood health committees (NHCs), health workers, extended family members, women of child-bearing age who are not currently pregnant (or who recently had a baby), and teenage girls.	Community-based approaches; Interpersonal Communication; Media and Social Marketing	Interpersonal communication - birth plan tool; Media and Social Marketing - Mass media (radio); Community-based approaches - Community mobilization, Role Models	HIV/AIDS; TB; Pregnancy/fertility; Neonatal	Life-cycle
19	Jhpiego, 2015	Mozambique	Methods Unclear: unclear	Pregnant women, Mothers, Women	Community-based approaches; Interpersonal Communication; Media and Social Marketing	Interpersonal communication; Community mobilization; advocacy	Pregnancy/fertility; Malaria; Neonatal; HIV/STIs, TB, Nutrition; Cervical cancer	Life-cycle
20	USAID Zambia, 2014	Zambia	STOP Malaria Program Quantitative: Cross-sectional household survey with comparison communities	STOP Malaria Program Not specified	Community-based approaches; Interpersonal Communication; Media and Social Marketing	STOP Malaria Program * Community activities * Mass media (TV & radio) * Community road shows * Nutritional counseling * Growth monitoring	STOP Malaria Program Malaria Nutrition (Breastfeeding; infant feeding) Maternal and neonatal	Life-cycle
			Mothers Alive Campaign Mixed Methods: Household survey with target audiences and in-depth interviews with campaign implementers	Mothers Alive Campaign Pregnant Women Male partners Community leaders	Community-based approaches; Interpersonal Communication; Media and Social Marketing	Mothers Alive Campaign * Mass media (radio) * Entertainment-Education (Mobile video) * Role Model * IPC (doesn't specify who is doing it)	Mothers Alive Campaign Maternal Health Family Planning	Life-cycle
21	James, 2014	Tanzania	Mixed Methods: Midterm Evaluation Report Systematically integrates two or more evaluation methods at every stage of the evaluation process, drawing on both quantitative and qualitative data * Samples from Arusha (North East zone), Dodoma (Central zone), Kagera (Lake zone), Mtwara (Southern zone) and Zanzibar (Coast zone) * Primary data collected through key informant interviews, focus group discussions, household visits, consultative meetings and self-administered key informant guides for sub-grantee staff * Evaluation team did not collect quantitative primary data and instead relied on the PEPFAR Reporting and USAID/Tanzania Pamoja Tuwalee Project Mid-term Performance Evaluation Organizational Management Information System (PROMIS) * Multi-stage random sampling used to select two districts per region, one urban and one rural. Respondent-driven (snowball) sampling also used to identify additional respondents who could provide critical information to the evaluation. Expert case sampling used to identify key policy and programming experts who could provide rich insights that shaped overall conclusions and recommendations	* Caregivers * OVC * Community leaders	Group-based approaches; Community-based approaches; Media and Social Marketing; Internet/Digital Media/Mobile Health	* Hotline * Advocacy * School clubs * Community outreach	Nutrition Violence (GBV) HIV	Life-cycle

22	Mclellan, 2014	India - 8 states (Jharkhand, Haryana, Himachal Pradesh, Punjab, Rajasthan, Chhattisgarh, Uttarakhand, and Delhi)	Mixed Methods: Endline Program Evaluation of Improving Healthy Behaviors Program's (IHBP) * Mixed-method approach with methodology included a desk review, Key Informant Interviews (KII), and Focus Group Discussions (FGD) * Given the highly qualitative nature of the evaluation, the team distributed Likert-type questions to key informants to help quantify data that provided another method to triangulate findings	Not specified	Interpersonal Communication; Media and Social Marketing; Internet/Digital Media/Mobile Health	* Mass media - TV & video * Mass media - radio * Street theatre * IPC - frontline workers * Social media * mHealth	* Maternal health * Family planning * Menstrual hygiene * Pregnancy * HIV * TB *** Unclear what, if any, components are integrated	Life-cycle
23	Trevant, 2014	Egypt - focused geographically in six priority governorates, including Qalyubia and Sharqia in Lower Egypt; and Asyut, Beni-Suef, Qena and Sohag in Upper Egypt. In those six governorates, SMART was implemented in 12 districts and 102 villages	Mixed Methods: Final evaluation of the Community-based Initiatives for a Better Life (SMART) Project * Three elements of the evaluation methodology: desk review of pre-existing data and project documents, in-country primary data collection through in-person interviews and discussions, and additional primary data collection through e-mail and telephone questionnaires * Mix of quantitative and qualitative data collection and analysis methods * Baseline and endline results for comparison, where possible * Team selected key informants from a list of names provided by USAID, as well as using snowball sampling from referrals * Evaluation team visited eight districts and twelve villages within the six governorates	Program targeting: - 438,539 women of reproductive age (WRA), - 62,836 pregnant women - 97,582 children (< 3 years) and - 54,640 newborns	Community-based approaches; Interpersonal communication; Group-based approaches	* Community outreach * Home visits / Household outreach * Community Health Workers * Social Support * Counseling	* Nutrition (stunting) * Neonatal (asphyxia) * Pregnancy / Family Planning	Life-cycle
24	Marquez, 2014	38 countries (Benin, Botswana, Burundi, Cote d'Ivore, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mali, Mozambique, Namibia, Niger, Nigeria, Senegal, South Africa, Swaziland, Tanzania, Uganda, Zambia, Afghanistan, India, Indonesia, Nepal, Pakistan, Vietnam, Albania, Armenia, Georgia, Russia, Ukraine, Bolivia, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Nicaragua,	Methods Unclear: Different studies were carried out in different countries - none are explained in sufficient detail	Differs depending on country. Not enough detail provided in report, but look to include: * Women of reproductive age * Mothers of children under 5 * Community health volunteers * Healthcare providers	Community-based approaches; Interpersonal Communication	Differ depending on country, project in country, etc. * Community mobilization * Social mobilization * Counseling * Unclear what other channels were used	* HIV * TB * Neonatal * Pregnancy/Family Planning * Nutrition (anemia) * Pre-eclampsia ** Unclear the extent of integration in most of the activities/countries. With few exceptions ** Different health areas are addressed in each country, not standardized across program	Life-cycle
25	ADAPT-CAETIC Développement Consortium, 2014	Madagascar - rural areas	Mixed Methods: End-of-project evaluation of USAID/Madagascar community-based health care project (SANTÉNET2) * Methodology included semi-structured interviews with beneficiaries and key stakeholders, focus groups, * Evaluation is to measure the changes on the use of community health volunteer (CHV) services that resulted from SANTÉNET2 interventions; and to assess the effectiveness of the SANTÉNET2 capacity building on local community health committees (CCDS) capability in the rural areas of Madagascar * Field of study includes the 800 SANTÉNET2 project intervention communes from 16 regions of Madagascar. * Interviews conducted using a structured questionnaire - different questionnaires for the household head, married women aged between 15 and 49, and caretakers of children from 0 to 59 months. Each women of reproductive age (15-49 years old) and each child under five years old were asked to be interviewed individually	* Women of reproductive age * Mothers of children under 5 * Community health volunteers	Community-based approaches; interpersonal communication	* Homebase outreach * Community counseling * CHVs * Community engagement	* HIV / STIs * Pregnancy * Malaria * Diarrheal disease * Pneumonia * Immunization * Nutrition	Life-cycle

26	AIDSTAR-Two, 2012	Kazakhstan; Kyrgyzstan; Tajikistan	Mixed Methods: An evaluation comprising the following activities:☐ Desk review of relevant documents including the Cooperative Agreement, annual reports, work plans, Performance Management Plan, draft sustainability plan, project model curriculums and training materials, TRaC surveys plus best practice guidance from PEPFAR, UNAIDS and WHO. ☐ Review of project indicator data against targets ☐ Semi-structured interviews with representatives of USAID/CAR, CAR country offices and Dialogue Project implementers, representatives of the project consortium partners, and local government officials as appropriate, as well as additional stakeholders in Kazakhstan, Kyrgyzstan, and Tajikistan ☐ Semi-structured focus group discussions with project beneficiaries ☐ Visits to project sites/activities such as drop in centers and outreach venues.	PWID, Sex workers, Migrants, MSM, Prisoners, PLWH	Interpersonal Communication; Community-based approaches; Group-based approaches; Media and Social Marketing	Counseling; Peer education; Advocacy. Lasky Model: 'Community building'; Social Norms; Outreach	HIV/AIDS; TB; Substance abuse	Co-occurrence
27	Catholic Relief Services, 2012	Burundi (rural)	Qualitative: Midterm evaluation report	Pregnant women, Mothers of young children	Community-based approaches; Interpersonal Communication; Media and Social Marketing	Entertainment education (Radio); IPC (Flipcharts); Community engagement and interventions; Home visits	Pregnancy/fertility; Nutrition; Neonatal; Malarial; Pneumonia; Diarrhoea; Vaccines/MMR	Life-cycle
28	ABH Services PHC, 2014	Ethiopia, urban and peri-urban areas	Mixed Methods: Midterm evaluation report Quantitative: Cross-sectional survey for households; Qualitative - FGDs, Key Informant interviews. The midterm evaluation addressed all the four objectives of the program related to: 1) systems, structures and policy framework; 2) quality of services; 3) community capacity development; and 4) evidence-based programming.	Children, Families	Interpersonal Communication, Community-based Approaches	Counseling; Community engagement and interventions	Pregnancy/fertility; Nutrition; Neonatal; Malarial; Pneumonia; Diarrhoea; Vaccines/MMR; TB	Life-cycle
29	Andean Rural Health Care, 2000	Bolivia - three rural areas	Mixed Methods: 2000 Annual Report * Routine data collection	** Not very clear from report, but I think: * Women of reproductive age * Children under 5	Interpersonal Communication, Community-based Approaches	* Community outreach * Home visits * Counseling * Flip charts *	* Nutrition (Vitamin A, stunting, pregnancy anemia) * Diarrheal disease * Pneumonia * Pregnancy (maternal and family planning)	Life-cycle
30	Legros, 2000	Niger	Methods Unclear: Technical report ** Methodology not described	* Health care workers ** Not sure if other audiences are targeted	Interpersonal Communication	* Client-Provider interactions * Support supervision	* Diarrheal disease * Pneumonia * Malaria * Measles * Acute respiratory infection	Life-cycle
31	JHU·CCP , 2010	Egypt	Methods Unclear: Report	Young married couples; Young children	Media and Social Marketing; Interpersonal Communication	EE; Mass media; Interpersonal communication (IEC material); Counseling	Pregnancy/fertility; Nutritional deficiency; STIs/HIV; TB	Life-cycle
32	Jhpiego, 2015	all MCHIP countries (54 countrie	Methods Unclear: MCHIP end of project report	* Women of reproductive age * Mothers of children under 5 * Health workers * Policy makers	Community-based Approaches; Media and Social Marketing	Advocacy, Community engagement	Pregnancy/fertility; Neonatal; Nutritional deficiency ; Diarrhoea ; Pneumonia ; MMR/Vaccines ; HIV ; Malaria	Life-cycle
33	Jones, 2015	Benin	Mixed Methods: Evaluation	* Families (specific audiences not explicitly stated) * Health workers * Policy makers	Media and Social Marketing	Social marketing, social franchising, mass media, Flyers, EE (community theater)	Pregnancy/fertility ; Malaria ;	Life-cycle
34	Ross, 2013	Sylhet, Habiganj regions in Bang	Mixed Methods: Final evaluation of the MaMoni project The evaluation methodology consisted of 1) a review of key documents, 2) key informant interviews, 3) field visits, and 4) analysis of survey and project monitoring data. The team reviewed key USAID, MOH&FW, MCHIP, and MaMoni documents.	*Women *Service providers * Community groups * Policy makers	Interpersonal Communication, Community-based Approaches; Media and Social Marketing, Internet/Digital Media/Mobile Health	Counseling , Home visits , community engagement, community mobilization. mass media, mHealth	Pregnancy/fertility ; Neonatal	Life-cycle
35	Sarrassat, 2015	Burkina Faso	Quantitative: Randomized cluster design	* Women of reproductive age * Caregivers of children less than 5 years old	Media and Social Marketing	EE (radio)	Pregnancy/Fertility; Neonatal; Nutrition; Diarrhoea; Pneumonia; Malaria	Life-cycle

36	Hess, 2012	Egypt (CCP document on US21)	Methods Unclear: Report - BCC campaign	Married couples under 30 yrs of age	Community-based approaches, Interpersonal Communication, Media and Social Marketing	Community mobilization, Community empowerment, Mass media, Counseling, Interpersonal comm (flyers)	Pregnancy/fertility; Nutritional deficiency; STIs/HIV; TB; MMR/vaccines ; Neonatal	Life-cycle

Appendix 6: Results evidence table

No	First Author, year	Intervention Description	Outcome Category	Outcome description and Results	Conclusion/Implications
1	Bashour, 2008{Bashour, 2008 #938}	This study aimed to assess the effectiveness of a community-based intervention of home visits on postpartum maternal and infant morbidities; uptake of postpartum care; continuation of breastfeeding at 4 months of age; uptake of the first vaccines in infants' lives; and on contraceptive uptake among mothers who delivered normally with healthy newborns. The intervention consisting of home visits aimed to examine, follow up, educate, support, and counsel women who had recently given birth. Registered midwives undertook 5 days of special training and implemented the postpartum home visits. The training included a review of postnatal care, the role of home visits, the content of each visit, including the physical exam as well as the educational messages, and communication skills. The purpose of each visit was planned. Subjects were randomly allocated to one of three groups. Women in Group A received four home visits on days 1, 3, 7, and 30 following delivery. Women in Group B received one home visit on day 3, similar in content to visits to Group A. Women in Group C received the current standard of care in Syria, that is, no visit following hospital discharge.	Client behavioral outcomes (Utilization of services/service uptake) - postnatal care uptake;	There were no reported differences between groups in outcomes other than in exclusive breast feeding.	While postpartum home visits significantly increased exclusive breastfeeding, other outcomes did not change. Further studies framed in a nonbiomedical context are needed. Other innovative approaches to improve postnatal care in Syria are needed. The value of home visits as our intervention in this study is highly related to the performance of midwives. The performance of midwives could be related to their background as well as to the field conditions. These midwives were recruited from a hospital and not from a community setting. Community nurses who are usually more skillful in communication skills and working with the community do not exist in the country so far. The quality of the intervention would depend on the ability of the visiting midwife to listen, empathize, and provide individualized problem solving techniques, all of which require experience and interpersonal skills, not just medical tasks. The main gain from a postpartum home visit by trained midwives was the increase in the rate of exclusive breastfeeding. Although, an extremely important outcome for child health and survival, future costing studies are important. Based on the study's findings, the biomedical framework was perhaps not the most important framework of reference for postpartum care, and thus social support interventions and emotional outcomes should be considered in future research on health care planning for the postpartum, especially in the Syrian context.
			Client behavioral outcome (personal/household behavior) contraceptive uptake and type;	The three arms did not differ in their current contraceptive use or postpartum care uptake (defined as paying one postpartum visit to a health provider).	
			Client behavioral outcomes - personal and utilization of service pertaining to the infant - infant immunization according to the national schedule at 3 months; and infant feeding, namely exclusive breastfeeding during the first 4 months of life.	A significantly higher proportion of mothers in Groups A and B reported exclusively breastfeeding their infants (28.5% and 30%, respectively) as compared with Group C (20%), who received no visits.	
			Health Outcomes. Primary outcomes included: maternal postpartum morbidities; infant morbidities;	Of the different maternal morbidities assessed during the home visits, only ''pallor'' as reported by the women differed significantly across the three groups, with Group C women reporting a lower pallor rate (22.6%) than either Group A women (31.1%) or Group B women (34.9%), (p5.004).	
			Other secondary outcomes reported on women's perceptions of their health and their impressions about the home visit and perceptions of its quality.	Not reported or no outcomes	
2	Brune, 2009{Brune, 2009 #848}	A systematic, methodologically-based structured M&L program in two of the three communities with low levels of social capital - Waslala and Pantasma. The project team monitored the control community of Cinco Pinos to assure that no similar intervention occurred there. The objectives of the USAID funded M&L Project were to implement and support activities that would a) develop management and leadership capacities with the goal of strengthening community organization and self-management and b) encourage the development of higher levels of household participation in community activities and increase trust among community residents and between the community and local public institutions. The strategies of activities implemented in Pantasma and Waslala involved: 1) technical assistance to support the formation of a Committee for Municipal Development and to assist the mayor and associates with moral leadership and other functional skills; 2) a series of leadership training workshops for leaders of the community, teachers, and others in content areas of moral values, leadership, strategic planning, budgeting, and conflict resolution training; 3) information, education and communication over a community radio program, as well as value and moral leadership campaigns, educational courses, mural paintings and other	Client Knowledge Awareness Attitudes;	One original contribution of this study is that we were able to show a relationship between social capital and community public health behaviors. Social interaction and the feeling that the spirit of participation in the community was high were positively associated with all three community health behaviors. Feeling close to one's neighbors was related to an increased likelihood to improve children's nutrition and to participation in community cleaning campaigns. Neighborhood harmony, meaning residents getting along with each other, was positively and significantly associated with participating in efforts to improve the nutrition and health of community children. The one exception to the generally positive association between cognitive elements of social capital and community health outcomes was trust. Higher levels of trust were negatively associated with individual efforts to engage in projects to advance the health and nutrition of children in the community, although the relationship was only significant in the latter case. The cognitive components of social capital were much less strongly associated with individual health behaviors. Trust in others was negatively associated with individual health behaviors, although the relationship was insignificant, with the exception of monitoring a child's growth and development.	The goal of this applied study was to determine the nature of the kinds of systemic actions that might positively affect the development of social capital. This project assesses whether direct interventions focused on developing social capital (i.e. management and leadership training and support) can help buildlevels of social capital in post-conflict communities. We find some evidence to suggest that the social capital building program had a positive impact on building some aspects of social capital, particularly the cognitive dimensions, and in increasing civic participation (viewed as a manifestation of social capital). In turn, some indicators of social capital were positively associated with positive individual health behaviors and greater participation in activities that promote community health. The mixed findings may be a function of the short time and small sample of our study in Nicaragua. However, they are suggestive that it would be worthwhile to continue developing and evaluating interventions designed to increase levels of social capital in communities. They also suggest that the findings of social capital studies in the more developed countries that found more consistent relationship between both behavioral and cognitive components of social capital may not be reflective of the conditions in less developed countries. As always, further study in these countries would be merited. We also suggest that the findings of this study are useful for current policy makers. In the absence of other evidence, these studies suggest it is worth attempting to improve social capital inpost-conflict communities, and perhaps in all communities with low levels of social capital. Such programs can have positive impact on levels of social capital, health behaviors and on civic participation in governance processes.

		activities; and 4) outreach which involved the technical team's regular monitoring of families in the communities to motivate participation and trust among community members. The local research team systematically monitored the implementation of the interventions to assist in improving their effectiveness and ensure a degree of consistency across communities.	Client behavioral outcome - service uptake and use of modern medicines	Regression analysis reveals some statistically significant positive correlations between social capital indicators and individual health behaviors. Participation in groups was positively and significantly associated with the use of modern medicine to treat children's respiratory illnesses An indicator of trust and solidarity – the belief that neighbors would assist if needed –was positively and significantly associated with the use of modern medicine to treat respiratory illnesses. Sociability and social harmony were more robustly associated with individual health behaviors than was trust. Feelings of closeness with one's neighbors were positively and significantly associated with general health. Getting along with others and community participation were positively correlated with regular monitoring of child development. and perception of general health. More frequent meeting loads were associated with the use of modern medicine to treat respiratory illnesses. One interpretation of this finding is that more frequent meetings facilitate conversations and the diffusion of ideas. Contributing to a group is associated with a greater likelihood to use modern medicine to treat childhood diarrhea and respiratory illnesses, and to growth monitoring.	In conclusion, we found that systematic interventions promoting management and leadership development were effective in improving some aspects of social capital, in particular the cognitive attitudes of trust in the communities. Interventions were also linked to higher levels of civic participation in governance processes. As in other empirical studies, we also found that higher levels of social capital were significantly associated with some positive health behaviors.

3	Cameron, 2014{Cameron, 2014 #162}	Researchers collected Most Significant Stories of Change attributed by 106 community members to an audio-drama edutainment intervention in 41 sites in Botswana, Namibia and Swaziland. The team analysed themes in the stories following a behavior change model of conscious knowledge, attitudes, subjective norms, intention to change, agency, discussion and action (CASCADA).One intervention in this trial is an educational audio docudrama series, Beyond Victims and Villains (BVV).Eight episodes of this audio drama were presented and group discussions were conducted after each episode. The eight BVV episodes address components of the CASCADA model. Each BVV session addresses several CASCADA components. All sessions include discussion of the contents of the episode and consider possible actions. Early episodes of the docudrama and their discussion focus more on conscious knowledge and individual attitudes, while later episodes build on this to stimulate participants to confront attitudes and social norms, to feel able to make changes and to plan and discuss actions.	Client Knowledge Awareness Attitudes;	Most (85/108) participants and facilitators reported some changes they attributed to their participation in the BVV intervention. The development of BVV took into account the CASCADA model of intermediate outcomes. The episodes of BVV cover relevant knowledge, and explicitly address attitudes and social norms, while discussions help participants to plan changes. The stories describing changes in intermediate outcomes in the CASCADA model shed light on how the BVV programme might reduce gender violence and HIV risk. Stories illustrated each element of the model, some indicating a series of changes leading to action.	Qualitative techniques for exploring outcomes from the standpoint of participants can usefully supplement quantitative impact measurement. Behavior change models like CASCADA (Conscious knowledge, Attitudes, Subjective norms, intention to Change, Agency, Discussion and Action) could help in the development and evaluation of complex interventions, providing a framework for understanding the pathways through which the intervention might function and for designing impact assessment instruments and procedures. LIMITATIONS: The MSC technique may overemphasize positive changes as storytellers asked about the MSC in their lives might be more inclined to report positive changes. The participants were not chosen randomly. The storyteller may have been influenced by the interviewer.
			Client behavioral outcome	Some described changes only in the early steps of CASCADA, such as knowledge and attitudes. Others told of changes in later steps in the sequence, such as feelings of agency, discussion of change and actual change; they sometimes described profound changes in behavior and life situation. Common areas of change included gender violence, women's rights, multiple concurrent partners, transactional and trans-generational sex, condom use and alcohol use.	
4	Des Jarlais, 2007{Des Jarlais, 2007 #956}	The project focuses on HIV prevention for IDU and has been implemented in five sites in Lang Son Province, Vietnam, and four sites in Ning Ming County, Guangxi Province, China. The intervention follows a peer outreach model developed in the United States. The peer educators regularly contact other IDU in the community and provide them with information on reducing drug use and sexual risk behaviors. They distribute sterile needles and syringes, ampoules of sterile water for injection, condoms, and no-cost vouchers that can be redeemed for sterile injection equipment and condoms in participating local pharmacies. Over the course of the project, an average of 10,000–15,000 new needles/syringes have been provided per month in each country. The peer educators also collect and safely dispose of used needles/syringes directly from drug injectors at injecting sites in the community. Project staff also work with law enforcement, government leaders and various community members to create understanding of and support for the project. According to the authors the project can thus be	Client behavioral outcome - reduced new injectors;	The percentages of new injectors among all subjects declined across each survey wave in both Ning Ming and Lang Son.	The implementation of large-scale outreach and syringe access programmes was followed by substantial reductions in HIV infection among new injectors, with no evidence of any increase in individuals beginning to inject drugs. This project may serve as a model for large-scale HIV prevention programming for IDU in China, Vietnam, and other developing/transitional countries.
			Health outcome - reduction in HIV prevalence	HIV prevalence and estimated incidence among new injectors fell by approximately half at the 24-month survey and by approximately three quarters at the 36-month survey in both areas (all P<0.01).	

5	Firestone, 2014{Firestone, 2014 #93}	The Pan-American Social Marketing Organization (PASMO) and partners are implementing a HIV Combination Prevention Program to provide key populations with an essential package of prevention interventions and services: 1) behavioral, including interpersonal communications, and online outreach; 2) biomedical services including HIV testing and counseling and screening for STIs; and 3) complementary support, including legal support and treatment for substance abuse. Print materials are distributed that demonstrate the importance of using condoms with water-based lubricant, and counselors are trained to talk about lubricant use in pre- and postcounseling. Two years into implementation, they evaluated the program's effectiveness for MSM by testing whether exposure to any or a combination of program components could reduce HIV risks. PASMO has defined an essential package of interventions for MSM following a combination prevention approach. To receive a complete package, an individual client should have a) participated in at least three BCC interventions conducted by outreach teams or through online outreach, b) received a referral for biomedical services such as HTC(HIV testing and counseling) or screening for sexually transmitted infections (STI), and c) received a referral to a set of complementary services. The **behavioral component** includes integrated BCC activities conducted by outreach workers. Based on the transtheoretical model and PERForM framework, these activities were designed to generate demand for the program's products and services, while also encouraging individuals to assess their health risks and build skills in HIV prevention. Activities are conducted in person one-on-one, one-to-group or online through cyber-educators. Using Prochaska's Stages of Change framework, outreach workers identify the stage a targeted individual is in to be able to practice a specific behavior being promoted, such as condom use or use of HTC, and tailor delivery of activities according to that stage through discussion and reflection. Outreach workers also ensure that condoms and lubricants are available for sample or purchase near to where activities are being implemented. The **biomedical componen**t is core to the Combination Prevention program's design. Services provided include HTC, STI screening and treatment, and for people living with HIV, referrals for care and treatment, including ART. A variety of service providers participate in the program, including private laboratories, private and NGO clinics, and some public sector facilities. HTC is provided through fixed and mobile services, according to where the program is operating. The addition of **complementary services** was designed to support	Client behavioral outcomes - personal behavior and utilization of services. To determine whether program exposure to any or a combination of components was associated with HIV risk reduction behaviors, specifically condom and water-based lubricant use, HIV testing and counseling, and appropriate treatment of STIs	Exposure to any program component was 32% in the study area (n = 3531). Only 2.8% of men received all components. Men exposed to any programmatic component were more likely to use condoms consistently with regular partners (OR 1.69; 95% CI 1.09, 2.62) and to have been tested for HIV (AOR 2.98; 95% CI 1.82, 4.87). Men exposed to the behavioral component were more likely to use a condom with water-based lubricant the last time they had sex (OR 1.84; 95% CI 1.08, 3.14), to use condoms consistently with regular partners (AOR 1.88; 95% CI 1.09, 3.25), and to have tested for HIV in the past 12 months (OR 1.76; 95% CI 1.001, 3.10). Exposure to the complementary component was also associated with HIV testing (OR 1.97; 95% CI 1.0, 4.05). The odds of condom and water-based lubricant use were greater when men received both the behavioral and biomedical component (OR 3.05; 96% CI 1.08, 8.64). Exposure to both behavioral and complementary components was associated with consistent condom use with commercial partners in the full sample prior to matching (OR 2.47; 95% CI 1.00, 6.09), but after matching, these results were not statistically significant. Overall, they found no evidence that receipt of all three program components was associated with any of the outcomes of interest, although this measure of exposure was rare.Men exposed to both behavioral and biomedical components were more likely to use condoms and lubricant at last sex (AOR 3.05, 95% CI 1.08, 8.64). The behavioral component was associated with consistent condom use with regular partners and with using condoms and water-based lubricants at last sex. Both of these behaviors are focuses of messaging during behavioral interactions. Effect estimates more than doubled for men who had received both the behavioral component and referral to biomedical services, suggesting that a greater dose of exposure was particularly effective at promoting water-based lubricant use with condoms. Evidence showed exposure to the behavioral component was associated to HIV testing. These results suggest that BCC strategies are effectively able to promote use of HIV testing and counseling services.	The program's emphasis on improving quality of care within testing service providers, adapting service hours to be convenient for the population being served, and helping service providers to treat client respectfully likely contributed to these results, along with making referrals to these service providers.. We have early evidence that a combination prevention strategy is associated with HIV risk reduction among MSM in Central America. Additional strategies are needed to expand program coverage into a population that is difficult to reach due to stigma and discrimination. Service linkages appear to strengthen program impacts, but measurement may be hampered by under-reporting. Future evaluations should take a multi-level approach to account for complex program operations and the multiple levels (societal, social network, interpersonal) at which a combination prevention strategy operates. The study finds overall support for interpersonal communication in influencing condom use and lubricant use among MSM. The authors also note that the programs emphasis on improving quality of testing services, adapting service hours to suit users and improving service provider-patient interaction enhanced the interventions effects. PASMO's strategies to reach MSM with HIV prevention programming are still achieving low levels of population coverage, and few men are receiving the complete essential package. However, those reached are able to practice HIV prevention. Combination prevention is a promising approach in Central America, requiring expansion in coverage and intensity

		Almost a third (32.2%) of respondents reported exposure to any component of the Combination Prevention program (Table 2). Across the five countries, exposure to the behavioral component reached 17.4% and was highest in Guatemala (27.9% overall and 74.2% of those with any exposure) and lowest in Costa Rica and Panama. Coverage of the biomedical component reached 16.4% of men regionally, with El Salvador and Panama achieving the greatest levels of biomedical exposure. Exposure to complementary interventions was reported by 11.2% of respondents regionally; the reach of the complementary component was minimal in Costa Rica but reached 65% of those with any exposure in El Salvador. Only 2.8% of respondents received all three components of the program, with El Salvador (6.1%) and Guatemala (5.5%) achieving the greatest levels of population-based coverage of combination prevention exposure.			
6	Ngo, 2009{Ngo, 2009 #946}	The Needle Syringe Program (NSP) used a peer education outreach model, organized through peer education clubs co-located with existing health services (e.g. local CHC, District Health Centre Clinic) to increase accessibility for IDUs. Prior to and throughout the implementation period, the project organized intense advocacy activities, including training for the law enforcement officials in the principles and practices of harm reduction and public education campaign involving community meetings and broadcasting on local media outlets. Regular collection of discarded N&S was undertaken by PE to promote safe disposal, environmental cleanliness and build community support for the intervention. A qualitative evaluation was undertaken in an attempt to explore the dynamics of behavior change, and the context related limitations on intervention effectiveness.	Client behavioral outcomes - IDUs being able to openly access to PE, Injecting safely, Discarding used needles and syringes in certain places for collection by PEs,	IDUs tended to be more open about their drug using status, more likely to inject at home, and more likely to approach PEs or needle access points if their community showed sympathetic attitudes toward them, considering them as patients rather than a 'social evil'. There was a shift toward safe injecting practices among IDUs who reported using sterile N&S and discarding them in a specific place for collection by PEs: "Every time we inject, we think of clean N&S and PEs" (IDU-Thanh Hoa). IDUs with a history of sharing N&S reported discontinuing the practice since the NSPwas initiated. Where it was impossible to obtain new N&S due to lack of money or injecting in late evening, IDUs reported sterilizing N&S before re-using it.	HIV/AIDS prevention and control should be implemented in coordination with drug use prevention and control. Several barriers undermined the effectiveness of the programme. The anti-drug law and periodic police crack downs on drug use presented a major obstacle to implementation. Monthly N&S distribution fluctuated with the incidence of police crackdown. PEs reported that it was very difficult to approach IDUs during police campaigns, as to avoid being arrested IDUs frequently changed injecting locations becoming hard to find. Fear of arrest is legitimate as current drug users are routinely detained for between 2 and 5 years for compulsory 'rehabilitation. At the programme level, high turnover of PEs due to death, illnesses, or arrest presented a significant challenge. Additionally, low levels of literacy made training PEs difficult. Finally, sterile water was not provided to IDUs with N&S by PEs although this was requested by drug users.
			Social outcome - Community changing misperceptions about NSP, Supporting NS and peer outreach programme, Reduction in stigma and discrimination towards IDUs, Clean up of NS discarded in public places	Through advocacy activities the project succeeded in overcoming the community's initial resistance to the NSP. During interviews, all community leaders reported positively about harm reduction activities and expressed their commitment to supporting the interventions. Local residents exhibited an understanding that the NSP was established to decrease sharing N&S among IDUs, and thus minimize the risk for HIV transmission among IDUs and from IDUs to other population groups (e.g. their wife and future children). Furthermore, the clean up activity to prevent accidents caused by N&S discarded in public places has changed negative perceptions about the programme. Almost all local residents participating in focus group discussions showed empathy toward IDUs and people living with HIV (PLWH) further demonstrating the success of targeted advocacy activities	Although NSPs are recognized as an important HIV prevention strategy in Vietnam, the 'social evil' approach to drug use including repressive measures by law enforcement remain a challenge to implementation. Working within a conflicting policy environment, this project has demonstrated how harmonizing law enforcement and public health approaches can lead to effective interventions and contributed to the evidence base supporting a harm reduction approach in the Vietnam context. Further it demonstrates how a programme of concentrated advocacy is essential to this success, measured by the ongoing support of local government, community and law enforcement.

7	Ngo, 2010{Ngo, 2010 #748}	Service franchising is a business model that involves building a network of outlets (franchisees) that are locally owned, but act in coordinated manner with the guidance of a central headquarters (franchisor). The franchisor maintains quality standards, provides managerial training, conducts centralized purchasing and promotes a common brand. Research indicates that franchising private reproductive health and family planning (RHFP) services in developing countries improves quality and utilization. However, there is very little evidence that franchising improves RHFP services delivered through community-based public health clinics. This study evaluates behavioral outcomes associated with a new approach - the Government Social Franchise (GSF) model - developed to improve RHFP service quality and capacity in Vietnam's commune health stations (CHSs) and display the Tinh chi em brand. The franchised CHSs were also required to carry out communication activities to promote the new brand. User fees for franchised RHFP services were standardized across the network. Extensive external marketing activities including road shows, media tours of the social franchise network and dissemination of print media (e.g., brochures, leaflets, banners, local newspaper articles) increased interest in the new brand. A professional marketing company was contracted to design and implement these activities following consultation with CHSs and target groups (e.g., women at reproductive ages). Two commune mass organizations (i.e., Women's Union and Youth's Union) were mobilized to collaborate with CHSs to maintain marketing and communication activities based in both the CHS and community after the launch. These marketing efforts were designed to look and feel similar to cultural and social events in which Vietnamese women and their families already participated. In addition, two paid "brand ambassadors" (from the Women's Union and the Youth Union) were recruited and trained by experts in all communes with a CHS franchise member. All brand ambassadors had experience working with other community health programs. They used face-to-face communications to encourage targeted segments (i.e., women,	Client behavioral outcomes (Utilization of services/service uptake)	Compared to the controls, GSF network clinics experienced higher user volumes overall and for reproductive health services in particular (total client volume coeff = 0.35, 95% CI =0.11, 0.59; RH volume coeff = 0.41, 95% CI = 0.07, 0.76; $p < 0.05$). The increase in family planning service client volume was marginally significant (FP client volume coeff = 0.37, 95% CI = 0.00, 0.73, $p = 0.05$). Calculated as the antilog of the coefficients of the logged outcomes, after controlling for other independent variables and baseline differences, franchise membership was associated with a 40% increase in total use for both reproductive and general health services; a 51% increase in RH use; and a 45% increase in FP use. The 40% plus increase in RH clients and total clients as well as the 20% increase (Coeff = 1.20) in the frequency of self-reported visits in the previous 12 months are substantial. Self-reported frequency of RHFP service use increased by 20% from the baseline survey to the 12 month post-launch survey ($p < 0.05$). However, changes in self-reported usage rate were not significantly associated with franchise membership ($p = 0.15$). The 45% increase in clinic-reported FP service clients related to GSF membership was marginally significant ($p = 0.05$). Other CHS characteristics were not significantly associated with the client volume.	Overall, this study indicates that the GSF model has the potential to significantly increase RHFP service use at local public health clinics in Vietnam. Increased client use (as indicated by clinic records) was consistent with increased self-reported visit frequency. However, the absence of statistical evidence indicating a positive association between self-reported usage rates and franchise membership suggests that significantly higher client volumes reported by the franchised clinics may have resulted from increased visit frequency by existing clients, not from new clients. Even so, it is appropriate to note that during the same period, client visit frequency significantly declined in the control clinics while increasing in the franchised clinics. This suggests that the GSF intervention may have motivated current users to more often keep follow up appointments and/or not visit other providers but return to the CHS with questions and other matters related to the clinic's RHFP services
		Prior to launching the network in July 2007, GSF network staff received extensive training on: customer relationship management; service quality evaluation; financial sustainability; social marketing and branding; and clinical instruction on RHFP service delivery. CHS doctors and midwives received additional training on quality of care and clinical service delivery. Training was provided by experts recruited and managed by Marie Stopes International Vietnam. Employing the partial franchising approach, RHFP services in member clinics were branded separately from other CHS services under a new name, Tinh chi em (Sisterhood). Participating clinics were required to meet quality standards regarding service delivery, clinic facilities and appearance, service quality assurance, and measurement/ evaluation in order to join the GSF network	Provider behavioral outcomes	no specific outcomes were described	

8	Nguyen, 2015{Nguyen, 2015 #106}	Intervention is based on strategies used in our previous study to reduce the incidence of new drug users in southern Yunnan, China. The intervention was based on the behavior change and self-efficacy model of Bandura's social learning theory. New behaviors were promoted through social reinforcement from the community. Persuasive influences included community norms, village leadership, family, and peers, and supportive attitudes and programs involving youth, schools, and drug users. Community involvement was key in influencing community norms. Traditional moral principles accepted by the communes were used to encourage youths to avoid drugs and to contribute to the wellbeing of the community. Social marketing principles were used to guide the design of the educational messages. Meetings with commune leaders, authorities, women's leaders, and interventions developed. These interventions included development of a didactic school curriculum on drug prevention, school assemblies, informal skits put on by youths, development of videos and games, parades to promote nondrug use, dissemination of drug prevention messages, loudspeaker announcements in the residential blocks, bulletins, establishing and staffing of an intervention center, posters, banners, and media announcements (including television, radio, and newspapers), visits by youth to detoxification centers, and messages from current and former drug users.	Health Outcomes	Incidence of new drug users between 2003 and 2009 increased more in the comparison group (from 1.4% to 7.1%) than in the intervention group (from 2.6% to 7.1%). The ratio of relative risk (assessment vs. baseline) in the intervention commune to that in the comparison commune was r = 0.6 (95% CI = 0.2, 1.4;	It was not the details of the intervention strategy that were important in our opinion, but the local ownership of the intervention. It was this strategy of mobilizing the community to recognize and take responsibility for designing and implementing the intervention that should be adopted by other localities with significant problems with drug use among their youths. Health officials are, therefore, likely to achieve better success at preventing drug use by working with affected communities to develop interventions appropriate for those communities and involving the commune leaders in designing the intervention.
			Client Knowledge, Awareness, Attitudes	Knowledge regarding routes of HIV transmission and prevention methods remained at approximately 80% at baseline and assessment in both communes.	
			Client Knowledge, Awareness, Attitudes	In the intervention commune, the percentage of participants who agreed with the statement "local authority and people currently see drug users as criminals who need to be controlled harshly" decreased by 15.7 percentage points (from 31.5% to 15.9%). In the comparison commune, the percentage decreased by 9.7 percentage points (from 31.1% to 21.4%).	
			Client Knowledge, Awareness, Attitudes	The percentage of participants who agreed with the statement "distributing clean needles and syringes to injecting drug users is acceptable to the local authority and people" increased by 12.7 percentage points (from 50.6% to 63.3%) in the intervention commune, but decreased by 9.4 percentage points (from 46.3% to 37.0%) in the comparison commune.	
			Client Behavioral Outcomes (Sub categories – Personal/household behaviors)	The level of condom use during last sexual intercourse with a female sex worker increased from 88.5% to 100% in the intervention commune, but slightly decreased (from 93% to 92.9%) in the comparison commune. The level of condom use during last sexual intercourse with a female casual partner increased from 42.9% to 74.2% in the intervention commune, and from 70.0% to 76.9% in the comparison commune.	
			Client Behavioral Outcomes (Sub categories – Personal/household behaviors)	Prevalence of reported injecting drug use at least once in the past month was low in both communes at baseline (only 7 of 614 participants reported using an injection drug in the past month in Ha Tu, compared with 5 of 583 participants in Cam Thinh), and reduced to zero in both communes in 2009.	
			Health Outcomes	In Ha Tu, urine opioid positivity among participants decreased from 2.4% to 1.0% (–1.4 percentage points), whereas in Cam Thinh, it decreased from 2.9% to 1.9% (–1.0 percentage points).	
			Health Outcomes	HIV prevalence (determined by laboratory serum testing) decreased from 2.3% to 0% in Ha Tu, whereas it decreased from 2.2% to 0.3% (–1.9 percentage points) in Cam Thinh.	

9	Pasha, 2010{Pasha, 2010 #677}	The Community Action Cycle (CAC), a comprehensive strategy, empowers communities to take charge of problems within their own context. The CAC has seven key phases: 1) Prepare to mobilize - the methodology to work with communities is designed, the study teams are established and trained, and they identify and train community facilitators; 2) Organize the community for action- the team enters the community, establishes credibility; raises community awareness about MNH; and works with communities to identify and invite those most likely to be affected by and interested in MNH issues to organize "core groups"; 3) Explore MNH issues and set priorities -core group members explore MNH problems and existing practices in their core groups and with the broader community and set priorities based on what they learn; 4) Plan together- core group members engage in a planning process with community leaders and resource people including health providers to develop a Community Action Plan and establish coordinating and monitoring mechanisms; 5) Act together - the community implements their plan and monitors progress, adjusting course as necessary; 6) Evaluate together- the community evaluates results, shares what it has learned, and prepares to begin the cycle again; 7) Prepare to scale-up - the community and/or the program team expands the approach to other communities. Individuals from outside the community must establish relationships with communities built on mutual respect and allow the community to solve their problems in the most contextually appropriate way. The CAC works well with HBLSS as well as with efforts to strengthen of facility-based services.	Client behavioral outcomes	No outcome description available as the trial was still in progress when this paper was published in 2010	none
		Training of skilled birth attendants; facility training for improvement of quality care at facilities; EmONC team intervention and implementation - All the teams underwent a central, intensive two-week training of trainers (TOT) led by Master Trainers	Provider behavioral outcomes;	No outcome description available as the trial was still in progress when this paper was published in 2010	none
10	Radoff, 2013{Radoff, 2013 #261}	9 radio-education chapters, 25-30 mins long each created; Each chapter ended with a review of key points. The topics covered were: prenatal care; HIV/sexually transmitted infections (STIs); domestic violence; labor and delivery preparation; preeclampsia/eclampsia; hemorrhage; postpartum care; breastfeeding; and family planning. Women were recruited at an urban clinic, and asked to listen to 1 of the 9 chapters. The post-test was conducted immediately after.	Client Knowledge, Awareness, Attitudes	Increase in knowledge of pregnancy danger signs (PDS): 53.8% increase in the number of correctly identified PDS after exposure to the REI (Wilcoxon signed-rank test; z = –4.18, P < 0.00001). Significant increase in knowledge/identification of three PDS: swelling of hands and face, convulsions, and vaginal bleeding. Participants who 1) reported having a sister who had experienced a pregnancy complication, 2) lived in an urban setting, and 3) had more than a sixth-grade education were significantly more likely to score higher on posttests related to knowledge of PDS than those without those attributes (90.9% versus 56.9% [X2 (degrees of freedom) = 4.60 (1); P = 0.043; n = 76]; 75% versus 45.9% [X2 = 6.8 (1); P = 0.009; n = 77]; and 62.5% (12+ years education) versus 79.3% (6–12 years) versus 50.0% (0–6 years education) versus 25.0% (no education) [X2 = 8.11 (1); P = 0.044; n = 77] respectively).	Evidence for the impact f radio EE; limitation: urban and rural care-seeking women. Further studies should establish whether this increase in knowledge of PDS is associated with increases in use of maternity care services and decreases in delays in seeking care.
11	Roman, 2014{Roman, 2014 #129}	1) Integration; 2) Policy; 3) Commodities; 4) Quality Assurance; 5) Capacity Building; 6) Monitoring and Eval; 7) Financing 8) community awareness and involvement	Client behavioral outcomes (Utilization of services/service uptake)	Pregnant women receiving 2 or more doses of IPTp: Malawi = 60.3%; Senegal = 52.2%; Zambia = 70.2%	Although each country's MIP programming experiences, situation, and needs are unique, Malawi, Senegal, and Zambia all had issues in the areas of commodities, quality assurance, and financing that, with attention, could contribute to improved

			Client Behavioral Outcomes (Sub categories – Personal/household behaviors)	Pregnant women sleeping under an insecticide treated net (ITN): Malawi = 35.5%; Senegal = 28.5%; Zambia = 45.9%	coverage andMIP outcomes. Careful consideration should be given to addressing all health system areas—even areas that rank high—since the elements are interconnected, and weaknesses in one area can negatively impact other areas. This is especially true in the area of integration, which includes the critical partnership between national reproductive health and malaria control programs to coordinate, plan, and harmonize policies and support synchronized implementation.
			Client behavioral outcomes (Utilization of services/service uptake)	Pregnant women attending at least 1 ANC: Malawi = 95.5%; Senegal = 91.1%; Zambia = 93.7%	
			Client behavioral outcomes (Utilization of services/service uptake)	Pregnant women attending more than 1 ANC: Malawi = 94.9%; Senegal = 87.3%; Zambia = 94.3%	
			Quality outcomes?	Human resource shortages are a major challenge in all 3 countries and affect access to quality of care. Zambia was 28,000 health professionals short of its Ministry of Health staffing targets. In Malawi, interviewed stakeholders said many providers were over-diagnosing malaria because of high client loads (implying not enough trained staff), lack of time or skills for proper clinical diagnosis, and the propensity for providers and clients alike to presume all fevers are malaria.	
			Social outcomes	All 3 countries were actively supporting community involvement to enhance and engender community education and mobilization. At the time of data collection, support for community involvement was not consistent, and more strategies were required to adequately involve communities and foster links between communities and facilities in a sustainable way. Although there is little documentation and assessment of these community-focused efforts, qualitative feedback suggests they were effective.	
12	Van Rossem, 2007{Van Rossem, 2007 #959}	4 radio programs; 4 television programs	Client Behavioral Outcomes – Personal/household behaviors	Ever used a condom: The results show that exposure to radio and television programs about family planning and HIV/AIDS had a significant but small positive effect on the likelihood that women have tried condoms (OR = 1.06). Among women the ORD-s of total exposure, radio program exposure and TV program exposure are 1.41, 1.36 and 1.27, respectively, indicating that those with the highest levels of exposure are roughly 30% more likely than those with the lowest levels of exposure to have tried condoms. The results show that exposure to radio and television programs about family planning and HIV/AIDS had a positive effect on the likelihood that males had ever used condoms (OR = 1.16).	These findings suggest that future reproductive health communication campaigns should consider investing in radio programming, as such programs may become effective than those investing in television programming. The findings also suggest that future social marketing and reproductive health communication campaigns should seek to increase their impact among women, perhaps by focusing on specific constraints that prevent females from using condoms.
			Client Behavioral Outcomes – Personal/household behaviors	Used a condom at last intercourse: No significant impact on the likelihood that women used a condom in last intercourse. Among men, the results show that exposure to such programs had a significant positive effect on condom use in last intercourse (OR = 1.10). Exposure to radio programs on family planning and HIV/AIDS had a significant positive effect (OR = 1.16), but exposure to television programs on such topics had no significant effect.	

13	Yousafzai, 2014{Yousafzai, 2014 #169}	We randomly allocated 80 clusters (LHW catchments) of children to receive routine health and nutrition services (controls; n=368), nutrition education and multiple micronutrient powders (enhanced nutrition; n=364), responsive stimulation (responsive stimulation; n=383), or a combination of both enriched interventions (n=374). All interventions were delivered by LHWs and were integrated within existing services through home visits and group meetings, and agreed upon during stakeholder consultations.	Health outcomes: developmental outcomes	The development outcomes show that compared with children who received no responsive stimulation, the children exposed to responsive stimulation had significantly higher mean cognitive, language, motor, and social-emotional scores at 12 months of age and, with the exception of social-emotional development, also at 24 months of age (table 2). Compared with children who were not exposed to enhanced nutrition, those who received enhanced nutrition had significantly higher mean cognitive, language, and social-emotional scores at 12 months of age, but at 24 months age only the language scores remained significantly higher. In all groups, language, motor, and social-emotional scores increased between 12 and 24 months of age; however, cognitive scores decreased during this same period.	Authors conclude that integrating child health, nutrition and development interventions is overall efficient as many child outcomes can be targeted at once. In addition to been an opportunity for cost saving, it also is an opportunity to coo-rdinate activities and messages for families.
			Health outcomes : Mean weight-for-age	Mean weight-for-age Z score did not diff er significantly between the groups at 6, 12, 18, or 24 months. Children exposed to enhanced nutrition had signifi cantly better height-for-age Z scores at 6 and 18 months than did children not exposed to enhanced nutrition (mean [SD]: 6 months enhanced nutrition −1·2 [1·3] vs no enhanced nutrition −1·4 [1·2], p<0·0001; 18 months enhanced nutrition −2·2 [1·2] vs no enhanced nutrition −2·4 [1·1], p=0·02).	
			Health outcomes: Anaemia	We did not record any intervention eff ects on haemoglobin concentration (and thus anaemia status) for either intervention	
			Health outcomes: Diarrhoea	The incidence of diarrhoeal disease was significantly lower in infants who received responsive stimulation than in those who did not (p<0·0001), but was significantly higher in the enhanced nutrition groups than in those with no enhanced nutrition (p<0·0001). Compared with the groups not exposed to the interventions, the occurrence of acute respiratory illness was significantly lower over time in the responsive stimulation (p<0·0001) and enhanced nutrition groups (p=0·076) (fi gure 4).	
14	Project Hope (2008)	The project worked on 1) Capacity Building: establishing Community Leadership Councils (CLCs); trained CLCs on reproductive health issues and child survival interventions; trained CHWs, TBAs and traditional healers on FP/RH and child health topics; trained health workers on IMCI and the expanded program of immunizations (EPI); 2) conducted numerous health education sessions on maternal child health issues; and 3) realized hundreds of mobile brigades to communities	Client Knowledge, Awareness, Attitudes (HIV)	Increase from 61% to 89% of mothers who know 2 or more ways to prevent HIV/AIDS; Increase to 85% of mothers who know where to get tested for HIV/AIDS	Authors note that not having a BCC strategy was a challenge 1. Conducting prompt follow up visits (supportive supervision) to recently trained individual (health professionals, CHWs, etc.) increases motivation and commitment to project activities. 2. Mobile brigades were an extremely successful tool in increasing the number of children under 5 who are fully vaccinated 3. In services should have been conducted more consistently throughout the project, as they were viewed as an incentive by health workers and improved health worker motivation as well as the delivery of quality health care. 4. The establishment of routine meetings with DPS on project planning strengthened project coordination between stakeholders and improved buy- in of project activities on the part of the MOH. By incorporating monthly and quarterly evaluations of activities, stakeholders were able to improve project implementation. 5. By leading quarterly meetings with all pvos working in Gaza, the DPS strengthened the relationship between the MOH and implementing organizations, and positioned itself as the leader in public health activities. Quarterly meetings
			Client Knowledge, Awareness, Attitudes (Maternal health)	Increase from 35% to 73% in women who can name 2 signs of maternal complication	
			Client Behavioral Outcomes (Utilization of services/Service uptake - ANC)	Increase from 80% to 89% women who have had at least 2 antenatal consultations. Percentage of women reporting two tetanus toxoid immunizations during last pregnancy fell from 67.3% to 55.2%. Percentage of deliveries performed in a health facility decreased by 70.7% to 68.8%	
			Client Behavioral Outcomes (Personal/household behaviors - Breastfeeding)	% of women exclusively breastfeeding decreased from 41.3% to 24.7%	
			Client Behavioral Outcomes (Personal/household behaviors - Contraception)	Percentage of women using modern contraception decreased from 32.2% to 26.7%	

			Client Behavioral Outcomes (Utilization of services/Service uptake - Malaria)	51% of women received presumptive treatment for malaria (IPT); % of children aged 0-23 months who slept the previous night under a bed net that had been insecticide-treated fell from 50.9% to 27.4%	and positioned itself as the leader in public health activities. Quarterly meetings facilitated coordination and improved service delivery among pvos. 6. While there are several pvos working in Gaza, most have created their own supervision manuals. Forte Saude should take the lead in consolidating all these manuals into one standard manual, to be used by all implementers. This manual could be adopted at the national level. 7. Training the community mobilizer allowed for improved follow up with ACS and CLCs and strengthened coordination between the health facility and community. 8. Observing ACS conduct home visits with a checklist allows a perfect opportunity to assess and improve the skills of ACS, which improves the quality of their work and serves as a motivational tool as well.
			Provider Behavioral Outcomes (Immunization)	In 2006, the project made possible 325 mobile outreach brigades during which 19,484 children were immunized. % of children 12-23 months fully-vaccinated went from 68.7% to 68.5%.	
			Provider Behavioral Outcomes (IMCI)	92% (55/60) of the supervised target Health Facilities are following IMCI case management protocols. Nearly 55 health facilities have established ORS corners following IMCI training. % of children aged 6-23 months who received a Vitamin A dose in the last six months fell from 74.6% to 66.3%.	
15	Howard et al., 2015	**1) Reach, Test, Treat and Retain Remote and Mountainous Model:** a) Mobilize the existing networks of hamlet health workers to conduct outreach to areas where HIV services are limited using flipcharts and cards (in Nghe An) ; b) Arrange mobile HIV testing and counseling and provide follow-up for those who test positive (in Nghe An) **2) MMT**: Counseling (this was provided in 9 provinces) **3) HIV:** Enhanced outreach approach (EOA) that incorporated community-based HIV testing	Health Outcomes (unavailable)	Given the short period of implementation, there has not been sufficient time to systematically measure the effectiveness of the model (Reach, Test, Treat and Retain Remote and Mountainous Model). Initial cascade analysis has shown:	1) Enhanced Outreach Approach. While early results from the program look promising, more comprehensive evaluation with greater involvement of government stakeholders is needed to document costs and benefits of the EOA program. 2) Reach, Test, Treat and Retain. The decentralized “Reach, Test, Treat and Retain” initiative for mountainous and rural areas is a critical SMART TA activity. Where appropriate, it should be expanded. This may require substantial modification in job descriptions of hamlet health workers, as well as related legal documents (MOH guidelines or directives), to fully integrate the model into the current health system. 3) SOPs for Lost to Follow-Up (LTFU). SMART TA should give special attention to developing and disseminating explicit standard operating procedures (SOPs) to prevent loss to follow-up and re-engage patients into care and treatment. This initiative should involve VAAC and provincial program managers, site staff and community-based support groups. 4) Community-Based Outreach. To scale up HIV testing and enhance links to care and treatment services, SMART TA should set up longer-term support to various community-based outreach efforts using a performance-based incentive approach where appropriate. 5) Should focus on Capacity building.
			Client Behavioral Outcomes (Utilization of services/Service uptake - MMT)	Growth in demand for MMT services, from under 4,000 enrolled in the first year to 14,678 by the end of Year 3. Almost all MMT enrollees in SMART TA-supported sites have been tested for HIV and almost all of those who tested positive have started ARV treatment or been retained in treatment.	
			Provider Behavioral Outcomes (MMT)	Case managers found and reached 161 (12.8 percent) of HIV-positive patients who had either not enrolled for care or had dropped out. 105 MMT HIV-positive patients, out of 161 Lost-to-follow-up cases, were enrolled or re-engaged in HIV care.	
			Client Behavioral Outcomes (Utilization of services/Service uptake - MMT and ARV)	Among LTFU cases, 16.8 percent (27 people) who had enrolled but never entered an HIV outpatient clinic or stopped using ARV returned for full ART care; the remaining 48.4 percent (78 people) had been lost during the pre-ART period and returned to outpatient clinics for CD4 cell count testing and further intervention.	
			Health Outcomes	74.65 percent (53 of 71 patients) of HIV-positive MMT patients were linked to HIV care in integrated clinics (i.e. SMART TA clinics, that provides all services: methadone treatment, HIV testing, counseling and HIV care and treatment), and only 57.78 percent (52 of 90 patients) in stand-alone facilities.	
			Client Behavioral Outcomes (Utilization of services/Service uptake - HIV testing and treatment)	83% of individuals reached with EOA took an HIV test (compared to 39%with the traditional model) and 97% of newly identified HIV-positive individuals were successfully referred to care and treatment services (compared to 40 percent reported nationwide).	
			Provider Behavioral Outcomes	Percentage of clients screened for TB (%) = 87.3%	
			Client Behavioral Outcomes (Utilization of services/Service uptake)	Number of patients who started new TB treatment = 477 ; Number of clients currently on TB treatment = 364	
			Client Behavioral Outcomes (Utilization of services/Service uptake)	Number of patients who started new Isoniazid preventive therapy (IPT) is 5,820. Number of clients currently on IPT is 4,076	
16	Mndaweni, 2015	In partnership with the NDOH, the USAID TB Program South Africa developed a national TB awareness campaign called “We Beat TB”. The campaign targeted adult South Africans ages 16-	Client Behavioral Outcomes (Utilization of services/Service uptake - HIV testing and treatment)	Those exposed to the campaign were 1.3 times more likely to have tested for HIV in the past 12 months.	Priority areas: address TB/Diabetes comorbidity; Scale up efforts; Use technology appropriately for patient management; increase patient retention and improve patient outcomes

		64 and school aged children. Promotion materials featuring the "We Beat TB" campaign brand were distributed at community mobilization activities, health education sessions, and national events such as World TB Day and World AIDS Day. (48.3% of South Africans aged 16-55 knew about the campaign (51% of females and 46% of males))	Client Knowledge, Awareness, Attitudes (TB/HIV)	84% of respondents knew that people living with HIV (PLHIV) were more likely to get TB (86% of females and 82% of males). 78% knew that it was possible to cure TB in PLHIV (82% of females and 74% of males). Controlling for other factors, those with high exposure to 'We Beat TB' were twice as likely to have high knowledge of TB/HIV co-infection (AOR: 2.06; 95% CI 1.79-2.37).	
17	Ernst & Young LLP, 2015	National communication campaign using radio broadcasts, television spots, billboards, advertisement in newspapers, and field activities. Social marketing for specific brands of health products, including condoms, ORS, ITNs, and water purifiers.	Client Behavioral Outcomes	Social marketing of health products was the most successful part of this component according to ADEMAS. The social marketing of products supported the promotion of the integrated package of services in the USAID/Senegal Health Program. Institutional capacity building was challenging.	**Recommendation 1:** USAID/Senegal may want to continue to expand social marketing of key products through ADEMAS and strengthen the BCC campaigns developed to support the products. In addition, USAID/Senegal may want to request that ADEMAS use innovative and integrated platforms like social media and mobile technology to reach target populations, especially youth and MARPs. **Recommendation 2:** USAID/Senegal may want to consider engaging another partner with expertise and experience in institution capacity building to provide this support directly to the MOH. Another option USAID/Senegal may want to consider is providing technical assistance to ADEMAS to improve their internal capability to provide institutional capacity building. **Recommendation 3**: USAID/Senegal may want to consider discussing with ADEMAS more effective ways for collaboration at the community level for activity implementation. To support this, USAID/Senegal may want to consider facilitating a discussion with the ChildFund consortium and ADEMAS on methods to improve collaboration at the community level. During this discussion, USAID/Senegal may want to make a clear delineation between the responsibilities of ADEMAS and the ChildFund consortium in their work with the CBOs (e.g., have the ChildFund consortium responsible for mobilization in the CBOs and ADEMAS be responsible for HCP activities). USAID/Senegal may also want to consider building required indicators for improved collaboration between the USAID/Senegal supported IPs into the structure of the program.
18	USAID Zambia, 2013	1. Orientation and distribution of a birth plan tool that can be used by health providers, Safe Motherhood Action Groups (SMAGs), pregnant women, and their male partners. 2. Orientation and training of influential leaders to be "Change Champions" in their communities, with follow-up support as they roll out mobilization activities within their communities. 3. Development, production, and broadcasting of Safe Motherhood radio adverts. 4. Implementation of interpersonal communication activities for pregnant women, young mothers and their male partners, and other key community members that will be conducted by Change Champions and SMAGs.	Client Knowledge, Awareness, Attitudes	91.6 percent reported that they had learnt something from campaign. The most commonly recalled information and knowledge from the campaign amongst the respondents was the importance of danger signs and the importance of seeking care at their onset (64.1%), saving money (63.3%), the importance of facility-based delivery (52.1%), and the importance of attending ANC early (36.8%). Of the respondents who were able to recall at least one component of the SMGL campaign, 89.7 percent were able to recall at least one topic or message that they learnt from the campaign. Of these, 56.4 percent recalled two or three topics/messages and 23.1 percent were able to recall four or more topics/messages that they learnt from the campaign.	Interpersonal communication with the Change Champions has worked very well. The strategy of selecting influential community leaders or members worked well for the Change Champions programme, as did collaboration with other key stakeholders (e.g., health workers, SMAGs, NHCs, and other CBOs). The media plan for the Safe Motherhood radio adverts should be reviewed to ensure that they are airing on the most listened-to radio stations and during the most listened-to time periods for the target audience in the specific districts targeted for the campaign. There was great consistency in the messaging across the campaign's different components/communication channels, which was evidenced by respondents' recall of the key messages and the reported perceived impact on their knowledge and behavior. Resources should be mainly targeted for expanding access to the birth plan and other interpersonal communication activities, as these were the most effective channels in reaching the target audience with the campaign messages.

			Client Behavioral Outcomes	Amongst all respondents, 72.4 percent reported that the SMGL campaign had an impact on their behavior. Of only the respondents who were able to recall at least one specific component of the campaign (n=117), 82.4 percent reported that the campaign influenced their behavior. The most commonly reported influences on respondents' behaviors amongst the respondents were that they saved money while pregnant (47.0%), attended ANC early in their pregnancy (35.0%), and delivered or planned to deliver in a health facility (32.0%)	
19	Jhpiego, 2015	MCHIP program: 1) Community mobilization using the Community Action Cycle (CAC) and IEC material in support of MMI and the Cervical Cancer Prevention Program; 2) Capacity building; 3) technical assistance to policy-makers; 4) In-service training for providers 5) Equipment and infrastructure for facilities; 6) Management and supervision	Client Behavioral Outcomes (Utilization of services/Service uptake)	% of VIA performed, (of women presenting for their 1st visit): 14.1% in 2011, 63.3% in 2012, 48.8% in 2013 to 47.7% in 2014.	By the end of December 2014, the number of health facilities offering integrated RH services has increased from 17 (at the beginning of the project) to 129, and a total of 216,028 women have been screened for cervical cancer lesions since the beginning of the project. MCHIP's support has included training (936 healthcare workers trained in integrated CECAP and RH/FP and 39 maintenance technicians), and supportive supervision and technical assistance. In addition, in order to support the initiation of CECAP services, MCHIP provided two tanks of CO2, acetic acid 5%, registration forms, IEC materials, and the installation of cryotherapy equipment in all of these facilities. MCHIP's community engagement component works to create demand for family planning and other reproductive health services. Since FY13, the project has reached more than 1.6 million individuals through educational sessions and over 3,000 radio spots have been aired. Through home visits and other outreach activities, the project has referred 8,515 pregnant women to services
			Client Behavioral Outcomes (Utilization of services/Service uptake)	% of cryotherapy treatment performed in relation to women eligible for cryotherapy: 74.0% in 2011, 72.3% in 2012, 83.9% in 2013 to 89.0% in 2014.	
			Health Outcomes	% of VIA positives: 9.9% in 2011, 6.8% in 2012; 7.5% in 2013 and 7.3% in 2014	
			Health Outcomes	% women with referred for lesions >75% or due to cervical cancer suspicion: 11.5% in 2011, 11.5% in 2012, 23.3% in 2013, 26.5% in 2014	
			Health outcomes	Institutional maternal mortality ratio (per 100,000 newborn): 416 in 2009, 406 in 2010, 510 in 2011, 303 in 2012, 247 in 2013, 218 in 2014	
20	USAID Zambia, 2014	STOP Malaria Program * Innovative campaign that integrates malaria, MNCH, and nutrition messages * Campaign focused on the promotion of ANC services and IPTp, use of ITNs, prompt and effective treatment of malaria, and proper feeding of children who are sick with malaria	Client Behavioral Outcome	Higher rate of bed net ownership and use in intervention areas compared to others	None
			Health Outcome	Lower fever prevalence in intervention areas compared to others	

21	James, 2014	** Unclear which, if any, of the components of the project are actually integrated * Purpose of program is to provide services that will improve the quality of life and well-being of OVC by empowering households and communities to provide care and support in the 21 regions (mainland and island) * Provide comprehensive services strategically aligned to OVC and their household needs. These comprehensive and quality services include health care (general health needs, specific health needs of HIV+ OVC), HIV prevention, education and vocational training, food and nutrition, protection, psychosocial support, shelter and care and economic strengthening based on OVC and household needs * Ensure that there are meaningful linkages and referrals to other AIDS, health and development services, thereby using the potential for linking OVC programs to prevention, care and treatment and other health education and development interventions within a given region or district * Increase the capacity of households to protect, care for and meet the basic needs of OVC in a sustained way by improving their caretaking, livelihood and health-seeking skills.	* No useful outcomes related to behavior or health		* Partners have adopted diverse approaches for providing psychosocial support to MVC with school-based child rights clubs emerging as the most sustainable approach * Economic strengthening initiatives have provided entry points for literacy, birth registration sensitization and potentially provision of sexual and reproductive health information * Zonal approach is enhancing coordination, and working with sub-grantees is contributing to local capacity building. Stronger coordination with government has opened pathways for referrals, and there has been joint implementation of initiatives between implementing partners, sub-grantees and the GoT

22	Mclellan, 2014	* Improving Healthy Behaviors Program's (IHBP) objective is to improve the adoption of healthy behaviors in three areas: reproductive, maternal, neonatal, child and adolescent health (RMNCH+A)1, HIV/AIDS, and tuberculosis (TB) * Developing four SBCC campaigns: I) Promoting care for pregnant mothers and institutional delivery, 2) Repositioning of family planning to promote spacing methods, 3) Promotion of Programming and Learning for Postpartum Intrauterine Contraceptive Device (PPIUCD) and 4) a campaign targeted at adolescent girls and promoting menstrual hygiene * Capacity building of frontline workers and their supervisors, including IPC training for Accredited Social Health Activists (ASHAs) and the use of traditional folk theatre * Campaigns used a 360-degree approach that involved a mix of channels including mass media (mostly TV, some radio and videos) and mid-media (street theatre and hoardings) as well as IPC, with the help of flip charts, games, and leaflets * All campaigns went beyond just presenting facts and telling people what they should do to persuading them with a more compelling emotional tone * Extensive TA has been provided across national-level institutions in the form of training, with mentoring and assistance provided on RMNCH+A, HIV, and TB, to build national-level institutional capacity * Built capacity at the state level by strengthening the unit responsible for planning and implementing communication/IEC activities, since there was no specific division focusing on SBCC * Use of mobile phones and other mobile devices, the Internet, and social media has been experimented with by IHBP, and early indications show good potential under certain	None of interest	None of interest	* Though there was general satisfaction with the level of the trainings, there was some criticism that too much content was packed into too short a timeframe and that there was no time for fieldwork. SBCC training was too loaded, and a simpler, briefer version is needed * Although mass media costs cents per person reached in most settings, it is less effective in inspiring behavior change than IPC, which costs much more per person reached when the training and support materials are factored in. Global experience shows that a combination of mass media, mid-media, and IPC works best * Should immediately design a study based on existing data, secondary and original research that considers the cost-effectiveness of different media used in the 360-degree package in order to guide future strategic planning when selecting a variety of mutually reinforcing channels * Training successful in creating broad support for SBCC approach and increased skills for evidence-based planning. The combination of training and embedded project staff has ensured that SBCC is the predominant approach used for promoting positive public health practices * IHBP should accelerate the finalization of a body of evidence that accounts for the transition from IEC to SBCC including how-to guides, sample materials, training modules, and other documents that can lead to exportation of the model and eventual expansion to additional states.
		* Overarching objective of SMART was to implement effective health communication strategies across target areas through proven, life-saving community interventions * SMART worked through and with local NGOs to complement and create demand for public sector health services, and increase adoption of key healthy practices. With a focus on stunting, SMART sought to build capacity to engage local organizations to target improve communities' abilities to utilize and sustain community-based strategies to improve MNCH, FP and nutrition * Used CHWs from among educated young women in target communities to provide quality health education/awareness, basic care and referrals regarding antenatal, postnatal and neonatal care to target beneficiaries. CHWs worked to effect behavior change in communities initially resistant to messages that contradicted traditional health and nutrition practices * Training doctors in evidence-based clinical practices in the	Health Outcome	SMART's implementation period was too brief to evaluate its effectiveness, especially with regard to stunting, neonatal and maternal health and/or mortality; however, respondents cited observable changes in health-seeking behaviors and child feeding practices	* SMART engaged through a network of local entities created a solid implementing web that provided critical antenatal and nutrition care to beneficiaries in need, upgraded skills of local service providers in MNCH, FP and nutrition, and improved maternal and child nutrition and health in target communities * Because of SMART's behavior change communication (BCC) efforts, there were tangible behavioral changes were observed not only at the household level, but also in the community, especially with respect to exclusive breastfeeding, improved household nutrition practices, pregnant women seeking regular antenatal care (ANC), and shifting family attitudes toward maternal health * CHWs and staff members of CDAs reported that SMART's capacity building not only increased their technical knowledge and professional skills, but also their abilities to be effective community leaders and advocates for women's health and education * SMART effectively raised the supply (using mobile clinics) and demand (through
			Client Knowledge, Awareness and Attitudes	"During the final quarter of CHW activities, 82.69% of pregnant women could correctly identify at least 3 danger signs during pregnancy and 78.89% could identify at least 3 danger signs of newborns"	
			Client Knowledge, Awareness and Attitudes	86% of women in communities have an increased awareness of the causes of stunting	
			Client Knowledge, Awareness and Attitudes	88.7% of women with children under 2 receiving at least four ANC visits from trained health personnel during their previous pregnancy, compared to 75.3% at baseline	
			Client Knowledge, Awareness and Attitudes	% of women with children under 2 who can identify at-least 3 danger signs of newborns, increased from 14.5% to 55.7%	

23	Trevant, 2014	* Training doctors in evidence-based clinical practices in the management of stunting, child nutrition, and antenatal/postnatal care to reinforce messages delivered by CHWs * Raised awareness among men and women regarding the importance of proper MNCH-FP Nutrition, as well as gender-specific issues, using Community Committees and gender-focused seminars Main activities centered on community health outreach and communication activities, which aimed at increasing target families' awareness and knowledge about the importance of adopting proper MNCH-FP-Nutrition behaviors; *1. Community health outreach and communications activities* . Community health outreach and communications activities were designed to increase families' and households' awareness and knowledge of maternal and neonatal risk factors, emphasize the practice of key MNCH behaviors and appropriate care-seeking practices thereby creating demand for related services as in ANC classes, post-partum and post-natal care, birth-spacing, etc. *2. Nutrition education and rehabilitation program* . A nutrition education and rehabilitation program at the community level was implemented to address maternal nutrition and childhood malnutrition and stunting (6-24 months). The package of activities included identifying malnourished children in the community, providing food and nutrition education, home visits by volunteers to follow up children's nutritional status, medical checkups and laboratory investigations for children to detect parasitic infestation and training volunteers to implement program's activities *3. Home-based neonatal care through a package of simple interventions* . Promote a home-based neonatal care through a package of simple interventions that can save newborn lives, especially those delivered at home. Trained outreach workers were to counsel mothers for newborn care, including resuscitation, cord care, kangaroo mother care for low birth weight, and initiation of breastfeeding. The home-based intervention package consisted of antenatal care, iron/folate tablet distribution, safe delivery, postnatal care and family planning use. *4. Test new approaches in community health outreach and communication* . Introduce and test new approaches in community health outreach and communication that will improve neonatal survival and young child nutrition.	Client Knowledge, Awareness and Attitudes	% of women who know three advantages of healthy timing and spacing of pregnancies increased from 65.5% to 84.4%	* SMART effectively raised the supply (using mobile clinics) and demand (through raised awareness) of MNCH-Nutrition services. In the short term, SMART's health messaging has sustained impact within households, as mothers continue to practice improved health behaviors for children, and at the community level, where community attitudes and practices toward nutrition and gender parity are beginning to improve * SMART maximized project efficiency by leveraging existing community systems and entities, as well as by updating and using health materials from previous health projects * One of the most frequently cited enabling factor of SMART results was the use of CHWs as community behavior change agents. CDA staff and beneficiaries overwhelmingly noted that the selection of CHWs from target communities was effective in gaining people's trust. * Majority of respondents reported that SMART not only met a need in their respective communities, but that SMART effectively met the increased service demand with increase service availability * Majority of key respondents noted that without the cooperation of and partnerships with local entities and national associations, SMART would not have been able to penetrate communities as effectively as it did Recommendations: 1. Establish a hybrid community based health model, to capitalize on strengths and resources of the civil society, government and private sector. 2. Target adolescents with messages about MNCH/FP/Nutrition before marriage and first pregnancy in order to ensure early understanding and practice of good health behaviors. 3. Increase resources (relevant educational materials and events) and remuneration for CHWs, both for their professional development and sustained commitment to high performance. 4. Combine MCH and socioeconomic development programs, to ameliorate effects of poverty on the health status of women and children. 5. Consider adding male CHWs to penetrate conservative communities more effectively and enable family-level changes in attitudes and health-seeking practices. 6. Partner with rural health units to operate mobile clinics in order to improve health service accessibility and systematize knowledge-sharing between government and private providers. 7. Maximize coverage and interaction of health messages through social media such as mobile phone SMS and Facebook. 8. Leverage the use of information communication technology (ICT) so that future M&E systems can use electronic data collection and reporting systems to reduce human error and secure data compilation and management for decision making. 9. Develop skills of medical doctors and nurses early on in their careers (e.g. before being licensed) to limit new graduates' exposure to misinformation and poor medical practices.
			Client Behavioral Outcome	SMART documented over 30,000 visits to mobile clinics by mothers and their children (no age specified) over an average of 15-month engagement	
			Client Behavioral Outcome	Demand for Iron & Folice Acid tablets among pregnant women rose substantially during the project, as reported by CHWs and doctors	
			Client Behavioral Outcome	% of newborns, delivered in the last 2 years who received Essential Newborn Care (ENC) increased from 17.5% at baseline to 22.5% at endline	
			Client Behavioral Outcome	% of women with children under 2 with diarrhea in last 2 weeks who provided appropriate care increased from 30.7% to 96.5%	
			Provider Knowledge, Awareness and Attitudes	52.8% of CHWs could correctly identify the seven danger signs for newborns at endline, compared to 28% at baseline	
			Provider Behavioral Outcome	62% of mothers with children under 2 who received their first postnatal care home visit within two days of delivery, compared to 35% at baseline	
			Provider Behavioral Outcome	% of husbands and wives who received at least one FP counseling session during pregnancy increased: Husbands: From 14.5% to 34.7% Wives: From 50.7% to 80.1%	
			Health Outcome	% of children 6 -23 months who are underweight (low weight for age) decreased from 15.3% to 12.2%	
		Health Care Improvement Project (HCI) - global mechanism of USAID for technical leadership and assistance to improve health care delivery and health workforce capacity and performance in USAID-assisted countries from 2007-2014	Provider Behavioral Outcome (South Africa TB/HV program)	TB screening rate among new HIV-positive clients increased from 76% (2010) to 90% (2012)	* Frontline health workers can be engaged to make measurable improvements in service quality: Regular health providers delivering facility-based as well as community-level services can improve health care quality fairly rapidly with an improvement approach that engages them in analyzing and acting on gaps in
			Provider Behavioral Outcome (Tanzania - PMTCT program)	% HIV + pregnant women counseled for FP at ANC in the month increased from 13% (May 2011) to 85% (Sept 2012)	

24	Marquez, 2014	* HCI built the capacity of health systems to apply modern quality improvement approaches to strengthen facility- and community-based health services, human resources management, and services for vulnerable children and families, improving health outcomes * Health workforce development and performance improvement activities to strengthen the performance of community health workers (CHWs) * HCI HIV improvements spanned counseling and testing, prevention of mother-to-child transmission of HIV (PMTCT), antiretroviral therapy (ART) and pre-ART care, management of tuberculosis (TB) and HIV co-infection, injection safety, and home-based care for persons living with HIV (PLHIV) * Address quality gaps across the continuum of maternal, newborn, and child health services, including missed opportunities to provide essential services during antenatal care (ANC), low compliance with evidence-based practices such as active management of the third stage of labor (AMTSL), use of the partograph, appropriate management of childhood diarrhea and pneumonia, and failure to promptly detect newborn asphyxia and apply immediate resuscitation Specific Country programs that appear to be integrated across health areas: Kenya / Malawi: * Nutrition care in HIV demonstration collaborative Kenya: * ANC/PMTCT integration demonstration collaborative Lesotho / Swaziland / Vietnam / Russia: * Improve quality of TB-HIV services Senegal / Honduras/ Nicaragua: * Community case management of childhood illness collaborative South Africa: * District-based quality improvement support for PMTCT, palliative care, and TB-HIV services, HIV counseling and testing, and comprehensive ART care in five provinces Uganda: * Saving Mothers, Giving Life maternal and newborn care improvement intervention * Integrating family planning with ART and maternal-newborn health (MNH) services Afghanistan * Maternal and newborn health facility demonstration collaborative * Maternal and newborn health community demonstration collaborative Russia * Prevention of hypothermia and respiratory disorders among	Provider Behavioral Outcome (Uganda)	% of HIV+ patients seen in the clinic who are in general care and/or receiving ART who are assessed for active TB at every visit increased from 45% (2006) to 96% (2007)	compliance with standards * HCI found that using social media is effective for stimulating the uptake of knowledge products on the web, particularly Facebook and Twitter, which are used extensively by health workers and health care organizations in Africa, Asia, and Eastern Europe for professional communication. Connecting through social media with individuals and organizations who are interested in improving health care creates ready channels for promoting content posted on web portals * HCI's work also helped to put on the global agenda recognition that most health professions' education and training systems are not equipping health workers with the competencies to brainstorm, test, study, implement, and spread changes. A key precondition to the sustainability of current and future investments in health care improvement is the availability of a current and future workforce across the health system that has the competence to lead and participate in improving care. Achieving this precondition requires new thinking about health worker education and training to integrate basic improvement competencies
			Provider Behavioral Outcome (Vietnam - HIV & TB program)	HIV counseling rate among new TB patients increased from 27% (2006) to 92% (2009)	
			Provider Behavioral Outcome (Benin)	% of delivered women counseled at every ANC visit increased from 0% (Jan 2008) to 61% (June 2008)	
			Provider Behavioral Outcome (Uganda - MNH)	% of newborn care providers who can correctly perform newborn resuscitation increased from 28% (2011) to 89% (2012)	
			Provider Behavioral Outcome (Russia - hypothermia and respiratory care)	% compliance with recommendation of mother-to-child skin-to-skin contact for 2 hours after birth increased from 0% (2009) to 74% (2011)	
			Client Knowledge, Awareness and Attitudes	% of mothers able to state at least three newborn danger signs increased from: - Uganda: 23% (2011) to 100% (2012) - Guatemala: 27% to 66%	
			Client Knowledge, Awareness and Attitudes (Afghanistan - MNH)	% mothers able to cite 2+ maternal and newborn danger signs increased from 64% to 84%	
			Health Outcome (Russia - teen pregnancy and STI)	Teen birth rate per 1000 girls age 15-17 decreased from 11.1 (2009) to 9.4 (2010)	
			Client Behavioral Outcome (Senegal - IMCI)	% of children aged 0-5 years with malaria/diarrhea/acute respiratory infection (ARI) seen within 24 hours by the CHW increased from 28% (2010) to 97% (2011)	
		* Program objective: Increase of the use of specific health services and products, and practices improvement SANTÉNET2 and its partners collaborated with communities to train CHVs. Communities were involved in the recruitment,	Client Behavioral Outcome	From the beginning of the implementation of the community health through CHVs to the period of the survey in 2013, the use of the Government Basic Health Centers (CSB) services has been reduced by more than half for the three childhood illnesses: from 65.3% to 27.9% for Acute Respiratory Infection (ARI); from 68.3% to 32.9% for diarrhea; and from 68.3% to 31% for malaria+E59:E71	* Proportion of women having received CHV services reaches an average of 90.9% within the SANTÉNET2 intervention areas. The lowest proportion is assessed in Itasy region with 76.6% while the highest is in Alaotra Mangoro region (98.8%). Women contact CHVs for questions related to maternal and neonatal health, childhood health, family planning service or other services of growth advice or follow-up.

25	ADAPT-CAETIC Développement Consortium, 2014	supervision, and support to CHVs. These community actions contributed to the operationality and sustainability of community services. SANTÉNET2 trained and supported two CHVs per fokontany (initially one Mother Health CHV and one Child Health CHV), and help find replacements in case of dropouts: * For Mother Health CHVs, the training occurs at two levels. At level 1; the CHVs receive an integrated training on FP (counseling on FP and contraceptive products), STI/HIV-AIDS prevention, safe motherhood, and postpartum FP. After three months of service, their performance is assessed. The CHVs who achieve the best results and meet certain criteria (attendance, regularity of reporting, supervision results) are trained on community-based Depo Provera and become Level 2 Mother Health CHVs. * Child Health CHVs receive training on nutrition, growth promotion, Expanded Program on Immunization, and common disease prevention (malaria, diarrhea, ARI). After three months of service, their performance is assessed. The CHVs who have the best qualifications and meet certain criteria (attendance, regularity of reporting, supervision results) are trained on community-based integrated management of childhood illnesses (IMCI) and become Level 2 Child Health CHVs.	Client Behavioral Outcome	Caretakers partially substitute the services from CSB by the services from CHVs when the later become available. A caretaker frequenting a CSB or another formal health facility before the implementation of the community-healthcare system has respectively 14% and 16% more chances to utilize CHV services in case of illness of their child compared to those who were using traditional medicine or stay doing nothing	* For the IMCI (three illnesses), CHV has treated 43.4% of the sick children against 27.5% "To what extent did the SANTÉNET2 interventions contribute to the utilization of CHV services by the rural population in the project's intervention zones?" 13 by the CSBs. This proportion amounts to 41.9% for diarrhea, 41.6% for pneumonia and 45.6% for Malaria * Community awareness campaign on childhood illnesses and on the family planning reaches more households (86%) in the village which access to radio station other than the national radio station (14%) which have a nationwide coverage * Caretakers behave differently by the type of childhood illnesses. The proportion of those who take the sick child to the CHV is very similar for diarrhea and ARI. However, they are more encline to go to the CHV for Malaria (6% higher). The difference is significant because only 11% of the sample caretakers had children with ARI vs. 48% for diarrhea and 40% for Malaria * Existence of a possible relational problem between the caretaker and the CHV influences negatively the use of CHV services. The model shows that a caretaker having a relational problem with the CHV is 40% less likely to use the CHV services than a caretaker who is on good terms with the latter * BCC may have a direct effect on the decision of the WRA to go to the CHVs, but the indirect effects on friends, relatives, neighbors, family members especially husband could be also factors that support the decision of the WRA. All these other members of the households and neighbors were also exposed to the BCC messages on family planning Recommendations: * Increase awareness of the population on the quality of care provided by CHVs. BCC had demonstrated its effect on the use of CHV services. BCC should be conducted adequately so that more educated and knowledgeable caretakers will decide to use the services of CHVs within their villages. Special awareness raising activity toward the more educated and the wealthier households, so that they will consider using the services of CHVs, available within their villages * Good perception of the behavior and attitude of CHVs is critical for the use of their services by the population. Social behavior must be exemplaire hence training on relational and attitude toward the community could help in improving the use of CHV services * Continue improving the quality and skills of CHVs: the sustainability of the community-health system has been illustrated by the high numbers of functioning CHVs, several months after the end of the support-project SANTENET2. This could be improved by periodical in-service training to keep the same spotless skills and respectful social behavior of CHVs toward the community and in the villages. The in-service training should be conducted by the CSB chief during the monthly meetings. The CCDS should be involved more in community awareness campaigns to better explain the CHV services to the population * Continue the promotion and support of the community-health system.
			Client Behavioral Outcome	From the descriptive, unconditional analysis, there is a certain tendency to reduce the use of CHV services by the households as household revenues improve. For poorest households in the first quartile of income, the use of CHV services is 44.9% and 43.6% respectively for FP and the three childhood illnesses while these rates fall down to 39.6% and 34.4% respectively for households in the fourth quartile. Nevertheless, 74% of surveyed mothers declared financial issues as the main constraints to access health services in case of illness	
			Client Behavioral Outcome	Caretakers who had received sensitization on the three childhood illnesses and on the roles of CHVs are 23 to 24% more likely to take their child to CHV for medical examination than caretakers who had not heard or received BCC	
			Client Behavioral Outcome	WRA knowing the roles of the CHVs in the matter of family planning are 22.2% more likely to use the services of the CHVs compared to women who are ignorant about the assignment of CHVs	
			Client Behavioral Outcome	Better experience of caretaker thus better familiarity with the disease results in lower probability of going to CHVs when their child is sick. A good knowledge of the child illness by the caretaker will result in 7% lower probability of using the service of the CHVs	
			Client Behavioral Outcome	Caretakers who appreciate the behavior of the CHV are 21% more likely to use the CHV services in case of childhood illness than those who had bad judgment on the social behavior of the CHVs. A more respectful behavior of CHV thus encourages the use of the services by caretakers in case of illness of their children	
			Client Behavioral Outcome	For the FP model, the result shows that women who appreciate positively the behavior of the CHV are 29.2% more likely to use their services, compared to women who assess incorrect social behavior of CHVs	
			Client Behavioral Outcome	The existence of a possible relational problem between the mother and the CHV influences negatively the use of CHV services. The model shows that a mother having a relational problem with the CHV has 40% less willingness to use the CHV services than a mother who is on good terms with the latter	
			Client Behavioral Outcome	The existence of any forms of social support results in higher probability to use CHV services varying from 7% to 11% based on the two model estimations. Social support may take different forms, from financial support from relatives and neighbors to the existence of common activities among villagers.	
			Client Behavioral Outcome	For family planning, with a percentage of more than 93% exposed to FP BCC, the effective use of the CHV services remains relatively low (44.5%). Yet, 17.6% of non sensitized women decided to get FP treatment and counsel from CHVs.	
			Client Behavioral Outcome	For IMCI, the utilization rate of the CHV services is a bit higher at 47.1% for the caregivers exposed to BCC against 25.9% for those not hearing health messages on IMCI and CHVs.	

			Client Knowledge, Awareness and Attitudes	Out of the 4,490 mothers of children with diarrhea, pneumonia or malaria, observed during the survey period, 66.9% have knowledge about the illnesses	
26	AIDSTAR-Two, 2012	The Dialogue Project employs five outreach prevention models that have been proven effective under previous regional projects and deemed best practices. These project models include: The Adara model, the Break the Cycle model, the LaSky model, the START Plus model, and the UNISON model.	Not clear on BCC activities, and corresponding outcomes.		Outreach models have been effective in reducing risk behaviors
27	Catholic Relief Services, 2012	Establishment of Care Groups of Leader Mothers; Home visits; Creation of BCC material (see below)	Client Behavioral Outcome	Infants, 0-5 months, who were exclusively breastfed increased from 69.4% to 91.4% in 2 yrs	Carry out a study with LMs and Papas Tubaramure to determine what incentives – tangible and intangible – are most likely to motivate them to remain involved and active. At a minimum the LMs – and the Papas Tubaramure – should be informed of the results of the MTE (including the ISTEEBU anthropometric survey) and publicly recognized for their contribution to the successes and achievements to date. ☐ To better understand the reasons for the dropout rate among graduates, conduct a barrier analysis of beneficiaries and LMs who have graduated. ☐ Reinforce the messages on malaria. Renewing the emphasis on what can be done at the household and community level to prevent and manage this disease could make a big difference in health outcomes not just for children but for other family members as well. ☐ It may also be useful to do a small sample to determine 1) if women really would have time to listen to the radio at other times and 2) if men are hearing the messages and if so, what they think about them. ☐ Find a way to share the BCC modules more widely with the MoH and other organizations that may be able to benefit from the investment the Tubaramure program has made in these materials. ☐ Consider developing at least one module specifically for men to conduct peer education on responsible fatherhood and key ENA and EHA actions that men can support. ☐ FH-Tubaramure may want to work with IMC colleagues to determine whether it would be useful to conduct a limited study on the most effective ways to prevent diarrhea and manage it at home. ☐ Follow through with some of the ideas described above for maximizing the impact of the radio program.
			Health outcomes	% of children 0-24 months reported with diarrhea (3 or days of loose stools) within past two weeks went from 14.1% to 13.4% in 2 yrs.	
		Development of the following BCC material:- Five modules (illustrated flipcharts) with lessons for all aspects of maternal and child health as well as messages for general family well-being and the promotion of better community health (See Annex J for a complete list of lessons.) - An “Age-Specific Card”, which is actually a shorter, separate module synthesizing all the key maternal and child health messages organized according to the stage of pregnancy or the age of the child - A radio series with highly entertaining skits to reinforce the messages in the modules	Client Behavioral Outcome	% of households observed carrying out four or more ENA actions at time of household visit was 88.9% (no baseline data available). % of households observed carrying out four or more EHA (essential hygiene actions) actions at time of household visit was 66.5%. (no baseline data available).	
			Client Behavioral Outcome	% of children 6 to 24 months consuming at least 4 food groups within last 24 hours increased from 74.2% to 81% in 2 yrs	
			Health outcomes	Average Household Dietary Diversity Score over life of project increased from 4.6 to 5.8 in 2 yrs (target was 9; report states that the target will be difficult to achieve given the current pace)	
28	ABH Services PHC, 2014	Capacity building;	Provider Behavioral Outcomes	Despite actions being taken to build the capacity of stakeholders, data from the field identified specific capacity gaps at different levels. The major capacity gaps identified at government level consist of: continuing staff turnover and consequent limitation of awareness about the project; poor partnership with CSOs; a lack of standard alternative care; and poor logistics to undertake monitoring and supportive supervision.	As was emphasized in this document, community structure and coordination of care is a major contribution of Yekokeb Berhan Project in response to HVC and their families. Findings from this assessment revealed that the problem of HVC and their families is getting owned by community members and development actors at community level. Community committee and volunteers are spearheading HVC focused interventions. They are taking responsibility to coordinate responses, mobilize resources and document accomplishments and challenges at their level. This is a big success in response to HIV in general and HVC in particular. One major concern here is on sustaining the effort at this level and ensuring accountability for coordination of care. Community structures appear to feel fatigue from their continued engagement with limited or no compensation. This may affect continuity of such structures and efforts. Secondly coordination at community level is at times a onetime contribution or does not have reinforcement mechanism even if agreement is reached to contribute to such contribution. This may pose challenges to sustainability of care and support to HVC and their families.
		Strong links between community structures and different government offices, specifically with the Bureau of Women, Children and Youth Affairs (BoWCYA), were established. This linkage seems to help the program to ensure that its interventions are supported by government structures. Yekokeb Berhan Program has strengthened the BoWCYA offices at all levels to enable these offices to coordinate care for HVC and their families	Health outcomes	Reported episodes of highly vulnerable children (HVC) illness in the previous two weeks decreased from 30% in baseline to 16.8% and the change was significant ($p<0.05$). Similarly, HVC who reported having diarrhea in the two weeks preceding the evaluation fell to 6.1% at the midterm evaluation from 10.8% at baseline ($p<0.05$).	

			Client Behavioral outcomes	Health-seeking behavior of HVC has improved since the initiation of the program with 63.9% of those who had fever seeking treatment at the midterm compared to 48.4% at the baseline (p<0.01). Similarly, those who sought treatment for diarrhea also increased from 49.7% to 86.2% (p<0.01).	Finding from this assessment witnessed the level of efforts made to build capacity of actors in Yekokeb Berhan Project at different levels. It appears that the level and uniformity of effort to build capacity of stakeholders at different level is not straight forward. This is further jeopardized by the unlimited needs for capacity at different levels and variation of capacity limitations. Yekokeb Berhan's project capacity building strategy follows roll out model where capacity building intervention at implementing partner (CSOs) roll to community structures at community level. It is evident that further rollout of capacity building to community level structures by implementing partner (CSOs) may not necessarily be uniform and keep envisioned standards. In view of this, capacity building will remain challenging in the future and may not have easy solution. Nonetheless, lessons drawn from Yekokeb Berhan initiative may help to reinvigorate capacity building endeavors not only in response to HVC and their families but also generic capacity building interventions in other development interventions.
			Health outcomes	Coverage of age-appropriate vaccination for under-five HVC, as confirmed from immunization card, was 57.6% at the midterm compared to 33.9% at the baseline (p<0.05). HVC vaccination coverage found in midterm was also higher than the national urban coverage of 48.1%. In the midterm, 272 (60.3%) adolescent HVC aged 14-17 reported having access to reproductive health (RH) information.	
			Health outcomes	Nutritional assessment of 695 children aged less than five years using mid-upper arm circumference (MUAC) testing found that 21 (3.0%) of them had moderate acute malnutrition while 8 (1.2%) had severe acute malnutrition. No significant differences were found between boys (4.3%) and girls (3.7%) in the rate of acute malnutrition in the midterm evaluation.	

29	Andean Rural Health Care, 2000	Unclear what the actual name of this program is * Health workers provide growth monitoring in an integrated fashion in the field and in clinic settings * Community outreach and home visits to the villages by health workers * Intensive-counseling program for families of severely malnourished children * CHW's and some health volunteers provide education on pneumonia case management to families during their home visits, and are using their health education folders that they carry with them during their community visits. In addition, community education is being provided during meetings with local community groups such as women's clubs * In the project sites, the CHW's and other health workers have begun to improve their monthly revision of records of pregnant women and make home visits to the identified women of high-risk for follow-up monitoring and care * Health education given to school-aged youth on FP/RH * Provide additional health information and education at fairs in the communities where the health workers provide health education to the local populations. During microcredit meetings in communities, a CHW will provide health education sessions to the participants using IEC materials. Stepped up the number of educational sessions with local community groups such as women's clubs using flipchart and other educational tools. Most of the focus during the community education sessions has been on maternal and reproductive health * Mobile health teams visit non-censused communities on a regularly scheduled basis (usually once every two months) and	Client Behavioral Outcome	In Carabuco the TT rates to women of childbearing age were very low in July (3.5%), but have since risen to 12% thanks to a concerted effort by the health workers to reach the women through home visits and community education.	* Hearth methodology" which relies on peer training and positive deviance to affect behavioral changes among the participants was unsuccessful at changing nutritional outcomes - because it took too much time to implement with mothers and took them away from other important household duties for too long * No other conclusions or implications - this report is just an annual report. It does not include much detail about the actual implementation of the project or any measurable outcomes
30	Legros, 2000	* Nigerien QA Project (QAP) began in the Tahoua region in 1993 and in 1997 merged with another healthcare program—Basic Support for Institutionalizing Child Survival (BASICS)—to become the joint QAP/BASICS * Nigerien QAP sought to provide the government of Niger with both technical and operational assistance to improve the delivery of critical primary healthcare services in a limited demonstration region. This effort first aimed to identify and address the most prevalent illness related problems of this population and then determine the resources necessary to deliver a basic package of services (BPS) to prevent and/or solve those problems	Client Behavioral Outcome	Use of curative services rose from 30 percent in 1993 to 37 percent in 1995, but then dropped to just under 30 percent in 1997 (most likely due to crop failure). The team believes that improvements to the healthcare system, some of them created by QAP/BASICS, caused the increase and that by forces outside QAP/BASICS caused the decrease, although this cannot be proven	* Comparison between facilities involved in the program and those not - those programs not involved lacked many valuable features. It saw less organized offering of services and activity planning, no monitoring of follow-up indicators, no use of data, no awareness of any changes in health outcomes, no provision of prescriptions, and no integration of services * Trained staff are capable of applying the IMCI clinical guidelines to examine and treat children, and they can check children's vaccination and nutrition status * Only 11 percent of expected follow-up visits actually occurred; caretakers may not be able to comply with IMCI standards that encourage their return for a follow-up visit * Presence of both the QAP and BASICS in Niger presented a unique opportunity for USAID
			Provider Behavioral Outcome	Children correctly treated increased from: - 81% (1997) to 83% (1998) in Konni - 77% (1997) to 78% (1998) in Illela	
			Provider Behavioral Outcome	Mothers adequately counseled for the treatment of their sick child increased from: - 52% (1997) to 73% (1998) in Konni - 50% (1997) to 69% (1998) in Illela	

		* QAP introduced a quality assurance system of management for healthcare delivery through: (a) clarifying, communicating, and monitoring clinical and management standards; (b) QA training; and (c) implementing and supporting a process for preventing and correcting problems * QAP sought to improve the quality of family healthcare service by increasing effective coverage of the population with preventive services, improving case management of the most prevalent conditions threatening women and children * Coaching and Support supervision of trained staff	Provider Behavioral Outcome	Mothers counseled for signs that merit bringing their child back increased from: - 75% (10997) to 83% (1998) in Konni - 33% (1997) to 50% (1998) in Illela	and its partners to merge the two projects, improving IMCI's effectiveness by introducing it into a QA environment * In addition to the obvious benefit of reducing operational costs—which the evaluation team believes to be considerable though unquantifiable—by combining the projects, Niger benefited from the synergistic effect of supporting IMCI with quality assurance * Demonstrated a new approach for introducing IMCI, an approach that starts with strengthening health support systems well before IMCI is introduced * Results show that health workers and caretakers are having difficulty complying with IMCI standards regarding referral of very sick children and the need to return to the health facility for follow-up visits. This difficulty, caused by Niger's dispersed population, presents a challenge not only to the health delivery system but also to IMCI standards. * Peer coaching helped transform the traditional authoritarian style of supervision into a supportive, problem-solving approach * Between 1993 and 1998, the project trained 400 healthcare workers in problem solving, resulting in the formation of over 77 problem-solving teams. About 120 problem-solving cycles were ongoing or had been completed at the time of the evaluation, improving the delivery of prenatal and postnatal care, infant consultations, family planning, immunization coverage, and nutritional rehabilitation. * Coaches should receive regular, ongoing QA training. They should be trained in data collection, processing, and interpretation techniques (given the importance of these skills in monitoring activities). Monthly coaching activities should be conducted at the department and district levels when new problem-solving cycles occur
			Client Knowledge, Awareness and Attitudes	Mothers who knew at least two general danger signs increased from: - 43% (1997) to 83% (1998) in Konni	
			Client Knowledge, Awareness and Attitudes	Mothers who know how to give the prescribed medicine to their sick child increased from: - 73% (1997) to 83% (1998) in Konni - 40% (1997) to 80% (1998) in Illela	
31	JHU·CCP , 2010	Mabrouk Initative! ; Capacity building	Client Behavioural outcomes	4+ ANC visits for most recent births increased from 41.4% in 2000, 62.7% in 2005 and 68.9% in 2008	The CHL project afforded the opportunity to learn from many communication approaches. The cross-cutting approach, supported by USAID/Egypt in the design of the Communication for Healthy Living activity, succeeded in its broad goals of achieving positive outcomes across health sectors and in strengthening capacity for health communication throughout the system. Cross-cutting communication resulted in: a high-level of support for health communication among health leaders, improving the enabling environment; evidenced by the MOHP treating communication as a key strategic intervention in all sectors, but particularly when faced with the emerging health threats of AI and H1N1 and entrenched challenges, like tobacco control. the development of a critical mass of health communication capacity among practitioners across health sectors; evidenced by health sector coordinators of the MOHP setting priorities, designing messages and interventions, and implementing extensive programs in FP/RH, MCH, Infectious Disease, and Healthy Lifestyles; also evidenced by the effective use of community communication approaches by NGOs and CDAs in the community, and by the support of health communication by the private sector (broadcasters, pharmaceutical companies, and household goods manufacturers, etc.), increased program coordination
				Medically assisted deliveries increased from 56.6% in 2000, 70.1% in 2005 and 75.1% in 2008	
				Current use of FP increased from 57.9% in 2000, 60.3% in 2005 and 62.5% in 2008	
				Use of contraception after 1st birth increased from 55% in 2000, 68.7% in 2005 and 74.1% in 2008	
				Birth interval of 33 months or longer: 42.4% in 2000, 45.8% in 2005 and 50.5% in 2008	
				Washed hands with soap and water after preparing poultry: 30% in 2006 to 41% in 2007	
				Cooked eggs and poultry until hard: 43% in 2006 to 47% in 2007	
				Washed utensils more carefully after preparing poultry: 26% in 2006 to 34% in 2007	

				Poultry breeders reporting any caging: 58% in 2006, 73% in 2007, 72.4% in 2008	companies, and household goods manufacturers, etc.). increased program coordination across health departments; evidenced by joint planning and implementation to achieve program synergies (examples include integrated FP/MCH Mabrouk! Initiative, integrated FP/MCH materials; development and implementation of the post-partum protocol as well as design of the MOHP pre-marital service). rapid program response to emerging health threats; as evidenced by CHL's early response to both AI and H1N1 threats, having communication campaigns in place before either virus reached Egypt. economies of scale in the production and distribution of communication materials; evidenced by the unified approach to development of material under the MOHP, production of the GOE materials through the SIS and the NGO and private sector materials through the CHL technical assistance project and, finally, the distribution of a consistent set of materials through multiple channels in the MOHP and SIS, as well as through the NGOs, including in university campaigns, and the private sector pharmacies and doctors. a widened ownership of health communication among public, private and NGO sector partners throughout the system, improving sustainability; evidenced by the increased number of private and civil society partners participating in health communication activities, where at one time, the GOE ministries were among the sole participants; also evidenced by the increased GOE support for such participation by the private sector (e.g., Reckitt Benckiser, Merck) and civil society (e.g., National Committee for the Control of Viral Hepatitis).
32	Jhpiego, 2015	MCHIP		Many outcomes listed, but not categorized by country or program or SBCC activity. Country specific reports will provide more details	Utilize behavior change communications to bolster effectiveness of interventions: Some of the influential high-impact interventions with the largest potential effect are not only those that can be delivered in the community, but specifically those that are behavior change interventions.73 Bhutta and Black describe different high-impact packages of interventions for MNCH care. One of these is a package of nutrition interventions that includes breastfeeding. One of the most effective mechanisms for breastfeeding promotion is interpersonal behavior change. Care Groups have the power to do this effectively by combining the power of participatory women's groups with systematic home visitation. These groups have shown the potential to dramatically raise coverage of behavioral interventions, such as breastfeeding and handwashing, and others that have a strong behavioral component, such as use of ITNs and care-seeking for serious illness. There have been some early experiences with scaling up Care Groups and integrating them into national systems, most notably in Burundi. Systematically implementing and studying such approaches could go a long way toward helping countries reach their goal of eliminating preventable child and maternal deaths.
33	Jones, 2015	Capacity building, improving healh infrastructure , BCC activities	Client Behavioural outcomes	Children sleeping under LLIN increased from 64% in 2011, 80% in 2012 and 71% in 2013 Pregnant women sleeping under LLIN increased from 60% in 2011, 71% in 2012 and 76% in 2013	A planned evaluation of the effectiveness of the BCC activities is scheduled for May 2015

34	Ross, 2013	Community mobilization, health systems strenghtening, BCC, stakeholder engagement	Client Behavioural outcomes	Community action groups (CAGs): In Sylhet, 54% of CAGs are continuing to function with minimal support, since MaMoni began to phase out their activities in September 2011.13 In Habiganj, 93% of villages had a CAG and 85% had a UP member, FWA, or HA as a CAG member, indicating that CAGs are highly valued. Between July 2012– March 2013, they had provided in-kind labor and a total of 36,700 taka for the CCs. As of December 2012, nearly all the CAGs (99%) had developed emergency transportation systems to support access to services for women and newborns, and 84% had funds to support transportation and services.	CHALLENGES ☐ BCC: MaMoni relied heavily on counseling by the FWAs and FWVs to disseminate the BCC to women. However, these workers did not have sufficient time to provide the large volume of messages (60) to women. As a result, knowledge of danger signs was mixed and knowledge of birth planning was low. The team feels that the CVs could have been used more to provide messages. In addition, a more balanced mix of communication channels, with reinforcing messages, would have provided more opportunities for audiences to be exposed to the messages. ☐ Home-based counseling and services: Working with the FWAs to expand counseling and home-based services has not proven to be effective. Data indicate that few women have received information or services, except PNC, from FWAs. MaMoni will need to investigate the feasibility of providing information and services at the household level versus the community level. LESSONS LEARNED ☐ Phones improved communication. Almost inadvertently, phones played a pivotal role in the project. Trainers used them to supervise health and community workers after the training. Mobile phones were used to coordinate obstetric emergency transport, get help diagnosing birth difficulties, and prepare facilities for arrival. Mothers were given numbers of health providers to call for follow-up information. Action-planning supervision visits were followed up with phone calls. Informal support groups among CVs were created using mobile phones. Micro-planning meeting participants also used phones to problem solve between meetings. MAMA audio and text messages were delivered to pregnant mothers and recently delivered women. Mobile phones have proven to be a cost-effective channel and should be used to complement home visits and facility-based counseling. They should also be systematically built into future interventions. ☐ Linking UP/FWAs/HAs with CAG improved sustainability. It is clear that if the CAGs are valued by the local community they are more likely to continue their efforts.
			Client Knowledge, Awareness and Attitudes	In 2012, only 38% of pregnant women received ANC counseling by any provider and only 5% of these women were counseled by an FWA. Moreover, of the women counseled, only 7% received information on danger signs, which is probably why the results are mixed.	
			Client Knowledge, Awareness and Attitudes	A significant increase in knowledge of and a modest rise in knowledge of convulsions and retained placenta. However, based on the low levels of counseling the extent to which MaMoni contributed to these increases is unclear. The decline in knowledge of danger signs for pre-eclampsia and fever indicates more attention is needed in this area.	
			Client Knowledge, Awareness and Attitudes	Among women who reported that they had a birth plan during their last pregnancy, 27% had decided where to deliver, 24% knew which provider they would deliver with, 12% had savings (down from 21% in 2010), and 4% had arranged for transportation	
			Client Behavioural outcomes	50% reported using soap to wash their hands after cleaning their babies' bottoms and after defecating; 21% reported using soap to wash their hands before feeding their babies.	
			Provider Behavioral Outcomes	Of the 38% of women who were counseled, only 1% were told about transportation, 2% were told about savings for emergencies, and 5% were told about delivering in a facility	
35	Sarrassat, 2015	A comprehensive 35-month radio campaign addressed key, multiple family behaviors for improving under-5 child survival and was evaluated using a repeated cross-sectional, cluster randomized design. Fourteen community radio stations in 14 geographic areas were selected based on their high listenership. Seven areas were	Client Behavioural outcomes	Improvement in some care seeking behaviours for diarrhea, antibiotic treatment for fast/difficult breathing, and saving money during pregnancy. Mostly no difference compared with control areas though.	The radio campaign reached a high proportion of the primary target population, but the evidence for an impact on key child survival-related behaviors at midline was mixed. There were only 7 clusters in each arm, and as it turned out there were important differences between the 2 arms. Intervention areas were poorer, had a higher proportion of Muslim population, and were farther from health facilities. While the evaluators adjusted for these
			Health Outcomes (reduction in postneonatal under-5 child mortality)	Not measured at midline	

		randomly allocated to receive the intervention while the other 7 areas served as controls. The campaign was launched in March 2012. Cross-sectional surveys of about 5,000 mothers of under-5 children, living in villages close to the radio stations, were conducted at baseline (from December 2011 to February 2012) and at midline (in November 2013), after 20 months of campaigning. Routine health facility data were analyzed for evidence of changes in health facility utilization.	Client Behavioral Outcomes - Utilization of services	Routine health facility data were consistent with a greater observed increase in allcause under-5 consultations in the intervention arm than in the control arm (33% versus 17%, respectively), but the difference was not statistically significant (P = .40).	measured factors in their analysis, such adjustment does not ensure that there is no remaining confounding, since unmeasured differences may remain. Moreover, it appears likely there could have been some ‘‘contamination’’ of messaging into the control areas; it was later learned that in one area there was overlap of radio coverage. Also, a fairly high proportion of those in the control areas reported they recognized spots when played to them (although it seems very possible this may reflect courtesy bias or confusion with other radio messages). Yet another source potentially attenuating a measured benefit were the numerous health-promoting activities carried out in both intervention and control areas by other health programs during this time, including a very successful malaria bed-net distribution program. Finally, the baseline and midline surveys were carried out in different seasons of the year. All of these factors contributed to ‘‘noise’’ that could possibly have washed out to some extent a true effect of the intervention.
36	Hess, 2012	BCC Campaign	Client Behavioural outcomes	% women in the young family cohort who report 4 or more ANC visits at their last birth increased from 30% in 1995, 41% in 2000, 63% in 2005 and 69%in 2008.	The percentage of women who received the intensive focal village interventions (postpartum home visits, pregnancy classes, family planning counseling, and infant care classes) was statistically higher on six of seven indicators, compared to the larger population of women in Upper Egypt. Only birth interval was not statistically different, probably due to the low number of women in the focal village monitoring data who had the two births within a five-year period needed to calculate the birth interval. Because the women who participated in the community-based sessions and were captured in the monitoring database were by definition “high-risk” cases due to having low weight gain during pregnancy, delivering infants with low birth weight, or having malnourished children, the fact that these challenged women could in the end outperform their regional counterparts speaks to the power of the CDA-led activities
			Client Behavioral Outcomes - Utilization of services	% women in the young family cohort whose last delivery was medically assisted by a medical doctor (vs a midwife, TBA or other): 40% in 1995, 57% in 2000, 70% in 2005 and 75% in 2008	
			Client Behavioral Outcomes	% women in the young family cohort who birth interval was atleast 33 months: 39% in 1995, 42% in 2000, 46% n 2005 to 51% in 2008.	
			Client Behavioral Outcomes - Utilization of services	Percentage of women in the young family cohort who report using family planning within 8 weeks after their last delivery: 62% in 1995, 73% in 2000, 80% in 2005, 90% in 2008	
			Impact of FP messages	Exposure to FP messages accounted for a 12.0 percentage point difference in current use of a modern contraceptive method and an 11.5 percentage point difference in use of FP after the birth of the first child. Exposure to safe pregnancy messages accounted for a 5.4 percentage point difference in having 4+ prenatal care visits, a 4.8 percentage point difference in medically assisted delivery and a 7.0 percentage point difference in FP use within 2 months of one’s most recent delivery. Only the effect of safe pregnancy message exposure on birth interval was not statistically significant.	

Appendix 7: Articles included in the review

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