

Behaviour-change communication on health related issues (part two)

Kerina Tull

University of Leeds Nuffield Centre for International Health and Development

22 August 2017

Question¹

What is the extent to which different behaviour-change communication (BCC) approaches have been effective in (a) changing health-related behaviour, and (b) increasing the demand for appropriate health services?

Contents

1. Overview
2. Effect of changing health-related behaviour using different BCC approaches
3. Extent of increasing demand for appropriate health services using different BCC approaches
4. References

1. Overview

Several behaviour-change communication (BCC) approaches have been effective in changing health-related behaviours, as well as increasing the demand for appropriate health services. However, limitations have been found in these approaches to varying degrees.

As in the first part of this query (part one), results for this review are primarily taken from countries or regions with Islam as the dominant religion. Results from health- and nutrition-related projects using BCC are included for the following socially-conservative settings: Afghanistan, Benin, Bangladesh,

¹ This report is the second of four related queries, following “Behaviour-change communication on health related issues (part one)”

The K4D helpdesk service provides brief summaries of current research, evidence, and lessons learned. Helpdesk reports are not rigorous or systematic reviews; they are intended to provide an introduction to the most important evidence related to a research question. They draw on a rapid desk-based review of published literature and consultation with subject specialists.

Helpdesk reports are commissioned by the UK Department for International Development and other Government departments, but the views and opinions expressed do not necessarily reflect those of DFID, the UK Government, K4D or any other contributing organisation. For further information, please contact helpdesk@k4d.info.

Djibouti, Egypt, Ethiopia, Ghana, Indonesia, Iran, Kenya, Malaysia, Malawi, Niger, Nigeria, Pakistan, Philippines, Tanzania, Thailand, and Yemen. These groups therefore have more similar health behaviours and Islamic views on use of health services. Key findings from this review are as follows:

Examples of programmes changing health-related behaviour using different BCC approaches include:

- *Social theory:* These models are widely used in BCC programmes to obtain and maintain healthy behaviour at individual, community and national levels: Latest figures show that 168,859 people in African and Asian countries have healthier behaviour as a result of programmes using the **Theory of Change model** (Simavi Annual Report, 2015). The Access, Quality, and Use in Reproductive Health (ACQUIRE) Project successfully used a **Supply-Demand-Advocacy (SDA) programme model** in 10 field programmes to help change behaviours, including **men's** reproductive health (The ACQUIRE Project, 2008). However, although **Social Cognitive Theory and the Theory of Reasoned Action** underlined the *MEMA kwa Vijana* adolescent sexual health programme in rural Tanzania, the intervention was unable to substantially modify individual-level constructs, apart from knowledge (Wight et al., 2012).
- *Media:* BCC programmes involving **mass media** with sufficient *population exposure* have been shown to be a valuable tool in reaching large numbers of people with powerful messages, often leading to changes in critical behaviours (Hornik et al, 2015). Success is more likely when campaigns promote one-off/episodic behaviour (vaccination; screening) than ongoing behaviour (physical activity; dietary change) (Wakefield et al., 2010). Although useful for illiterate women (Jolly et al., 2016), limitations were found using **printed materials** in a recent BCC 'Improving Maternal, Neonatal and Child Survival' programme intervention in rural Bangladesh (Rahman et al., 2016); and a BCC project with **mobile technology** - the Mobile for Reproductive Health (m4RH) Programme - did not lead to behaviour change for sample of survey respondents in Kenya (Johnson et al, 2014).
- *Parental behavioural components and child health:* In Djibouti, children were more likely to eat more vitamin rich and diversified diets when community nutrition education sessions were delivered by "**mères conseillères**" (**active older women**) and **facilitators (more educated young women)** in a World Bank funded study (Brodmann & Mouhamed, 2016). However, impact evaluations of a '**behavioural component**' aiming to foster holistic early childhood development behavioural changes amongst parents in Niger found that, despite the observed changes in behaviours, impacts on children's nutrition and health final outcomes were limited (Premand, 2016).
- *Community health outcome and communication activities:* The flagship USAID SMART Maternal and Child Health Integrated Programme (MCHIP) enabled approximately 38,000 women and children in villages with limited access to public health services to receive free healthcare from **mobile clinics** (MCHIP Egypt – SMART Programme, 2014). However, the Programme achieved greater gains in *knowledge* than behaviour, likely to be due to the short duration of the programme (MCHIP Egypt – SMART Programme, 2014).
- *Integrated, community based BCC activities:* Projects using a variety of BCC approaches have also reported increased positive behavioural results on child health (Naugle & Hornik, 2014) and family planning (Mwaikambo et al., 2011). For example, a Kenyan campaign consisting of media, public relations and community outreach increased intrauterine device use by 43 percent (The ACQUIRE Project, 2006).

Human behaviour, including utilisation and acceptability of healthcare services, is "greatly influenced" by religious beliefs and dogmas (Basharat & Shaikh, 2017). However, there are mixed results on whether healthcare-seeking behaviour is driven by religion (Ethiopian Demographic and Health

Survey, 2008), cultural beliefs (Adulyarat et al., 2016), the inability to recognise health problems (Killewo et al., 2006) or other factors (Mebratie et al., 2014).

Examples of country-specific programmes which increased demand for appropriate health services using community and religiously sensitive BCC approaches include:

- **Midwives** have facilitated behaviour change at the family and community levels In Afghanistan: since the Community Midwifery Education Programme was created in 2003, health-seeking behaviour has increased, and more people (especially women) are visiting health facilities (Ghulam et al., 2014).
- A BCC intervention package delivered by **community health workers** (CHWs) in India more than doubled the number of Muslim mothers delivering their babies at appropriate institutions (37 vs. 15 percent, Khan et al. 2013). In rural Bangladesh, CHWs also significantly improved antenatal care (ANC, 47 percent vs. 21 percent) and postnatal care (PNC, 48 percent vs. 39 percent) coverage in MANOSHI intervention slums compared to comparison slums (Jolly et al., 2016). However, the poorest and illiterate women received fewer maternal health services from medically trained providers, including during complications with delivery (ibid).
- In Benin, **community leaders** had a positive role the quality of reproductive health services at health facilities (URC, 2017). When **community leaders were also used with CHWs** in counselling methods, uptake of essential maternal and newborn care services improved in Niger (Alvesson & Mulder-Sibana, 2013) and northern Ghana (Saaka et al., 2017). However, the intervention had a negative impact on maternal knowledge of newborn danger signs.
- **Religious scholars and female health workers** in Pakistan helped inform the public, increase vaccination rates as well as increase access to immunisation services (Basharat & Shaikh, 2017).
- The 'Unite For Body Rights' (UFBR) programme '**texting and hotline**' BCC method In the Muslim district of Mangochi, Malawi, has resulted in more young people visiting health services for sexual and reproductive health and rights (SRHR). Use of contraceptives has also increased (Simavi, 2015). However, in Kenya the 'Access, Services and Knowledge' (ASK) programme activities for adolescents were often small in scale; too short-lived to realise significant impact, as well as poorly monitored, evaluated, and documented (Joysila Consultancy, 2016).
- A USAID-sponsored family planning project called 'FALAH' (Family Advancement for Life and Health) in Pakistan increased access to family planning services by 9 percentage points by training over 10,000 **facility-based health care providers, managers, and medical college faculty members** (Mir & Shaikh, 2013). This included a module to explain the Islamic viewpoint on FP developed through an iterative process involving **religious scholars and public health experts**, which can also benefit other countries with sizeable Muslim populations.

The body of literature focussing on the effectiveness of BCC to change health-related behaviours is plentiful for maternal, newborn and child health (MNCH) programmes in low- and middle-income countries. Demand for service use related to religion is more of a factor for MCHN and immunisation than for reproductive/family planning programmes. The evidence found is gender blind; however, there is a tendency for BCC projects to focus more on women as the primary party responsible for caring for family members and accessing health services.

2. Effect of changing health-related behaviour using different BCC approaches

Behaviour-change communication (BCC) programmes based on theory models, mass media (e.g. TV, radio, and/or advertisements) and community-focussed approaches have been used to change health-related behaviours to varying degrees:

Programmes with a social theoretical foundation

The Simavi approach

BCC is widely used and stimulated by the international development organisation Simavi to obtain and maintain healthy behaviour at individual, community and national levels (Simavi, 2015). Their **Theory of Change** model (used in community health projects) has been shown to stimulate healthy behaviour of empowered communities, as well as improve utilisation of sustainable water, sanitation and hygiene (WASH). Latest figures show that 168,859 people in African and Asian countries have healthier behaviour due to their programmes (Simavi Annual Report, 2015: 88-89).

The ACQUIRE approach

The ACQUIRE (Access, Quality, and Use in Reproductive Health) Project successfully used a **Supply-Demand-Advocacy (SDA) programme model** in 10 field programmes to help change behaviours (2008: 14). In their '**Men as Partners**' (**MAP**) **approach**, gender norms (i.e. societal expectations of how men and women will behave) were found to strongly influence people's access to reproductive health (RH) services and their health-seeking behaviours. The constructive engagement of men in RH was a core ACQUIRE approach. ACQUIRE adapted strategies originally developed by EngenderHealth's MAP programme, which looked holistically at men's engagement from the perspective of men as clients, as partners of clients, and/or as change agents in more than 30 countries in Africa, Asia and Latin America.

Social Cognitive Theory

Many Malaysians with diabetes have poor glycaemic control and vascular complications (Tan et al., 2011: 897). A brief structured education programme was found to enhance self-care practices, and improve glycaemic control in Malaysians with poorly controlled diabetes using **Social Cognitive Theory**². The programme was **individualised** to enhance understanding of the education provided (Tan et al., 2011: 904). However, there were limitations with this programme: The local community exercise facilities were not easily accessible as some form of transportation was often necessary. Females, which were 60 percent of the sample, had problems with transportation (p= 0.04). As Malay females are socially conditioned to act in groups, this proved to be a specific barrier to behaviour change (ibid).

In Isfahan, Iran, a randomised controlled trial based on **Social Cognitive Theory** successfully promoted fruit and vegetable consumption among grade 4 students (nutrition behaviour

² Behavioural change is determined by environmental, personal, and behavioural elements. Each factor affects each of the others.

capability, $p < 0.001$) (Najimi & Ghaffari, 2013: 1237). However, this study had several limitations. Although consumption of fruit and vegetable increased in the intervention group, considering the short duration of intervention (12 weeks), evaluation of long-term behaviour change was difficult. Nevertheless, applying the educational model and involving students' parents in the intervention might ensure continuance of the results over a longer time (Najimi & Ghaffari, 2013: 1239).

Social Cognitive Theory and the Theory of Reasoned Action

MEMA kwa Vijana, an adolescent sexual health programme in rural Mwanza in northern Tanzania, found that growing up in a devout Christian or Muslim family promoted abstinence and fidelity, especially if the young shared their parents' strong religious beliefs (Wight et al., 2012: 5). When they did not, religious disapproval and the threat of punishment either reduced their sexual activity, or prompted greater secrecy. Religious beliefs also inhibited use of condoms (Wight et al., 2012: 5). The contextual barriers involved four interrelated socio-structural factors: culture (i.e. shared practices and systems of belief), economic circumstances, social status, and gender. At an individual level, these barriers appeared to operate through the constructs of the theories underlying the health programme: **Social Cognitive Theory and the Theory of Reasoned Action**.³ These combined measures were meant to change goals or intentions, assumed in the Theory of Reasoned Action to be the key determinant of behaviour— however, the intervention was unable to substantially modify these individual-level constructs, apart from knowledge.

The Trans-Theoretical model and the Modified Steps of Behavioural Change (SBC) Model

In a cross-sectional community-based study in Ethiopia, which employed the **Modified Steps of Behavioural Change (SBC) Model**⁴ as a theoretical lens, the odds of Muslims participants vaccinating their children was 44 percent lower than for Orthodox participants (odds ratio with 95 percent confidence interval= 0.56: 0.45-0.69). Also, participants who were Muslim were 0.85 times less likely to vaccinate their children than participants who were Orthodox (OR= 0.85: 0.63-1.14) (Abadu et al., 2017).

However, a tailored nutrition intervention that aimed to increase fruit and vegetable intake among elderly Iranians aged 60 and over did find use in the **Trans-Theoretical model of behaviour change** (Salehi et al., 2013). Study results showed a significant increase in mean serving/day in the intervention group (3.08 ± 1.35 vs. 1.79 ± 1.08 in control group; $p = 0.001$). Therefore, the model can be applied to healthy dietary behaviour change, more specifically fruit and vegetable consumption among elderly populations (ibid).

To change diet behaviours in obese children, the 'Malaysian Childhood Obesity Treatment Trial' (MASCOT) used counselling as one of several behaviour change techniques grounded in models of behaviour change, particularly the **Trans-Theoretical Model and Social Cognitive Theory** (Wafa et al., 2011). However, a dietary assessment was not undertaken, so its effectiveness is

³ Each identifies a set of component parts, or theoretical "constructs", said to influence behaviour which are cognitive and largely overlap. The main ones are knowledge, perceived risk/susceptibility, anticipated outcome/regret, self-efficacy/perceived control, intentions or goals, and subjective norms (individuals' perceptions of the predominant views of appropriate behaviour) (Wight et al., 2012: 2).

⁴ Which lies at the heart of the Trans-Theoretical model, which posits that health **behaviour change** involves progress through six stages of **change**: pre-contemplation, contemplation, preparation, action, maintenance, and termination.

unclear. Also, the trial was directed at parents who perceived their children's weight status as a problem, and treatment interventions aimed at parents who might not recognise that their children are obese, or that this is a problem (ibid).

Social marketing theory⁵

Malaysia

Prior research exploring the effects of religious behaviour on health-related lifestyles in Muslims proves that there is a strong relationship between religious behaviour and health-related behaviour (Hassan, 2015). Research in Malaysia suggests that Islamic beliefs and practices have the potential to be integrated into **social marketing** for specific public health campaigns among Muslim populations as Muslims who may be resistant to behavioural changes may be willing to alter their lifestyle, diet, or exercise habits according to Islamic sanction if they are implemented or communicated in a truthful way (ibid). However, these findings from a self-administered questionnaire cannot be generalised beyond this group of 176 Malaysian Muslims.

The Simavi approach

With social marketing Simavi utilises commercial marketing principles at the **individual, community and national levels** to promote affordable, suitable and sustainable SRHR (sexual and reproductive health and rights) services (Simavi, 2015). Their goal is to create demand for health services and products. Their social marketing is developed around the “4P framework”: product, price, place, and promotion. Successful examples include using local theatre groups and village leaders in Tanzania. During the weekly village meetings the theatre groups performed plays on different SRHR issues, including delivery and the importance of having skilled medical assistance. However, the effect of religion is not mentioned in any findings.

Mass media

BCC involving **mass media** has been shown to be a valuable tool in reaching very large numbers of people with powerful messages, often leading to changes in critical behaviours (Hornik et al, 2015: vi), especially in child health survival (Naugle & Hornik, 2014). Messages require careful development and pre-testing with target audiences (Wakefield et al., 2010). Gaining sufficient *population exposure* is important for realising both direct and indirect pathways of influence, and to compete with health-harmful messages. However, media campaigns have relatively short-term effects on behaviour and so require ongoing investment. Wakefield et al. (2010) conclude that success is more likely when campaigns promote one-off/episodic behaviour (vaccination; screening) than ongoing behaviour (physical activity; dietary change).

Bangladesh

The MANOSHI programme (2007-2012) was a five year urban maternal, neonatal and child health programme. Self-reported exposure to their BCC approaches were as follows: **poster** (75 percent), **TV advertisement** (69 percent), **sticker** (68 percent), **face-to-face counselling** (57

⁵ **Social marketing theory** is a theory of mass communication that promotes socially valuable information and socially accepted behaviours. It tries to integrate marketing ideas, principles, tools, techniques and socially beneficial concepts to promote communication and benefit society.

percent), **folksong and street drama** (9 percent). A statistically significant association was found between exposure to BCC approaches (TV advertisement, poster, leaflet, and sticker) and knowledge score ($p < 0.05$) (Sarker et al., 2012: 2). Analysis exploring the association between exposure to BCC tools and knowledge level showed that TV spot and sticker were more likely to be associated with a 'good' maternal and neonatal health knowledge score and were highly significant. No significant association was found for face-to-face counselling, poster, folksong, and street drama and a good knowledge score (Sarker et al., 2012: 38).

Rahman et al. (2016) explored community perceptions of the components of the recent BCC intervention of the BRAC 'Improving Maternal, Neonatal and Child Survival' (IMNCS) programme in rural Bangladesh where the MANOSHI programme has been operating since 2007. Most of the study participants considered BCC materials (posters and stickers) as being essential, and the images of healthy mothers and children presented in these materials were well accepted by them. **Printed materials** assisted in comprehension and memorisation of messages about birth preparedness (especially savings), recognition of danger signs and immediate self-referral to biomedical health services, particularly when explained by community health workers during interpersonal communication (IPC). However, limitations were identified in the design of illustrations, which hampered message comprehension. Some respondents were unable to differentiate between pregnancy, delivery and postpartum danger signs. Furthermore, some women were afraid to view the illustrations of danger signs as they believed seeing that might be associated with the development of these complications in their own lives. Despite these barriers, participants stated that the IMNCS BCC interventions had influenced them to take health promoting decisions to seek maternal, newborn and child health (MNCH) services when necessary (Rahman et al, 2016).

Kenya and Tanzania

In Kenya and Tanzania, the Mobile for Reproductive Health (m4RH) **texting programme** helps citizens find health clinics, receive text messages about family planning (FP) and participate in surveys about their reproductive health and habits (FHI 360, 2017). m4RH has a robust user base in Tanzania (over 170,000 users – Johnson et al., 2014), and use of the programme continues to increase. Programme costs are entirely supported by the donor, and there is keen interest to explore other revenue models to sustain the programme (Mangone et al., 2016).

Results from 50 telephone interviews with m4RH users in Kenya and Tanzania in 2012, suggest that m4RH is associated with increased FP knowledge; as well as the possibility to support behaviour change (i.e. attending a clinic due to information they received from m4RH). However, in Kenya m4RH did not lead to behaviour change for sample of survey respondents (Johnson et al., 2014).

Community-level practices

Community-level activities for parents have been used to change feeding behaviours and improve child health in a number of different countries:

Djibouti

In 2014, a World Bank-funded BCC study examined the effect of monthly group sessions and individual home visits aiming to improve nutrition both at the household and community level in

Djibouti. Nutrition education sessions were delivered by “**mères conseillères**” (**active older women**) and **facilitators (more educated young women)**. The programme also promoted healthy behaviour and referred patients to health centres for children at risk, complemented activities by the Ministry of Health focussing on the treatment of acute malnutrition, e.g. providing micronutrient powders and targeted supplements for children aged 6 to 24 months (Brodmann & Mouhamed, 2016). Results showed that children were more likely to be eating food rich in vitamins (increase of 5.2 percentage points for children <5 years and 7.3 percentage points for youngest child <2 years). Youngest children were also more likely to have diversified diets (increase of 6.9 percentage points).

Niger

A ‘behavioural component’ (volet compartemental) aiming to foster behavioural changes amongst parents related to holistic early childhood development (nutrition, health, sanitation, and psycho-social stimulation) was an accompanying measure to a cash transfer programme in a ‘Safety Net Project’ in Niger (Premand & del Ninno, 2016). Participation in the behavioural component is a “soft condition” to receive monthly payments. Interim observations showed that the participation and interest from beneficiaries was very high, even without the transfer being dependent on formal conditions (Premand, 2016). Results showed that **community-level** activities used were likely to engender strong social dynamics, which could help produce positive behavioural changes. An impact evaluation showed short-term impacts on BCC measures in 9 out of 14 thematic areas, including changes in nutrition practices related to exclusive breastfeeding and complementary feeding. The BCC measures also induced stronger child stimulation and improvements in disciplining behaviour. Changes in some preventive health behaviours were also observed, although they were more mixed. However, despite the observed changes in behaviours, impact on children’s final outcomes were limited though this may be due to the highly stressed environment in which children live in rural Niger, including the interplay of multiple risk factors for malnutrition (ibid).

In another project, the “Recherche, Action, Plaidoyer” (RAP) programme implemented in three districts in Niger by the international NGO Médecins du Monde, **Islamic leaders** allowed project awareness discussions during religious services. This adaptation to local context also promoted project results: the great majority of recuperated children gained weight, and the number of children exclusively breastfed increased substantially. The number of women who started using modern contraceptives, especially injectables, consistently increased during the project period 2008–10 in project districts as well as in districts that were not mobilized. In the three project districts the utilization rates increased from 13.0 to 13.4 percent; from 7.2 to 14.7 percent; and from 5.0 to 16.5 percent. Women also appreciated the improved access to services on a broader spectrum of health concerns offered by **cadres**⁶ (Alvesson & Mulder-Sibana, 2013: 27-28).

Integrated approaches

A systematic review found that integrated BCC activities e.g. using **different mass media, in combination with social marketing and effective interpersonal communication (IPC)** such as in provider-client or peer-to-peer interactions, increased positive behavioural results on family

⁶ Volunteer community health workers who focus on providing family planning information.

planning (Mwaikambo et al., 2011). The following are examples of programmes using such approaches in different healthcare settings over the past decade in socially-conservative settings:

Egypt

Approximately 38,000 women and children have received free health care from Umbrella Community Development Association-facilitated mobile clinics arranged in villages with limited access to public services through the flagship USAID SMART Maternal and Child Health Integrated Programme (MCHIP) which ran from October 2011 to June 2014 (MCHIP Egypt – SMART Programme, 2014: xi). SMART funds supported logistics and additional training to providers to ensure quality antenatal care and child assessments delivered from **mobile units** (ibid). This was achieved by providing **community-based maternal** (CDAs - local community development associations, and CHWs - community health workers), **newborn and child health, nutrition, and family planning outreach communication services**. These approaches resulted in accelerated behaviour change, and improved knowledge about key areas that support maternal and neonatal health including nutrition, despite the unrest and societal changes occurring in Egypt during the programme period.

The most intensive activities occurred at the individual level, with community health workers promoting behaviour change among pregnant women and mothers. However, as expected, SMART achieved greater gains in *knowledge* than behaviour. This is likely to be due to the short duration of the programme (MCHIP Egypt – Smart Programme, 2014: 8).

Bangladesh

Despite achievements in selected health indicators (e.g. maternal and child health, and immunisation) access to quality health services remains inadequate and expensive for a large segment of the population in Bangladesh, leading the poor being unable to access care when needed. An evaluation of the MANOSHI (MNCH Urban) innovation to deliver an **integrated, community-based package** of essential health services to Bangladeshi slums found that the activities of BRAC community health workers significantly improved antenatal care (ANC, 47 percent vs. 21 percent; $p < 0.000$) and postnatal care (PNC, 48 percent vs. 39 percent; $p < 0.01$) coverage in the intervention slums compared to comparison slums (Jolly et al., 2016). This was accomplished through BCC interventions to motivate, educate and prepare expectant mothers for childbirth, highlighting an array of health issues including maternal and neonatal danger signs, maternal and neonatal nutrition.

Kenya and Indonesia

A campaign consisting of **media, public relations and community outreach** increased intrauterine device use by 43 percent throughout Kenya (The ACQUIRE Project, 2006: 4). In Indonesia, the involvement of relevant stakeholders, such as **cadres, family planning field officers, husbands, and community or religious leaders**, in various BCC approaches and modalities were also found to be advantageous in increasing behaviour changes in the community regarding family planning and long-acting and permanent methods of contraception (LAPMs) (Titaley et al., 2017).

3. Extent of increasing demand for appropriate health services using different BCC approaches

Healthcare-seeking behaviour and demand for services

Human behaviour, including the utilisation and acceptability of healthcare services, is “greatly influenced” by religious beliefs and dogmas (Basharat & Shaikh, 2017: 2). Women can play a vital role in shaping healthcare-seeking behaviours of the family, because they are the primary care giver and are “relatively more concerned about children’s health” (Basharat & Shaikh, 2017: 4).

The following are examples of how caregivers’ perceived demand for appropriate services have been affected by different BCC approaches in socially-conservative settings:

Yemen

The Webair and Bin-Gouth (2013: 1136) study on preventable childhood illnesses found that **perception of illness severity is a main predictor of** mothers’ health-seeking behaviour. Results showed that 51.4 percent of the respondents in Shehair city sought medical care, this being the most frequent action.

Thailand, Bangladesh and Ethiopia

Research with Muslim mothers in southern Thailand found that **cultural beliefs** resulting in certain perspectives and behaviour related to gender, modesty, as well as language barriers, can limit accessibility to health services (Adulyarat et al., 2016: 50). In Ethiopia, Orthodox Christian households were more likely to seek modern care, to seek higher level modern care and seek care earlier (for adult conditions) as compared with Muslim-headed households (Ethiopian Demographic and Health Survey, 2008: Mebratie et al., 2014). Analysis suggests that the lack of healthcare utilisation is due to socio-economic factors and *not* driven by the inability to recognise health problems, or due to a low perceived need for modern care (Mebratie et al., 2014). However, a cross-sectional study initiated in the Matlab sub-district in rural Bangladesh which aimed to understand the delays in seeking healthcare for mothers found that, for pregnancy-related morbidities, 45 percent of the largely Muslim sample reported “**inability to judge the graveness of the situation**” as a reason for delay in making decisions regarding health services (Killewo et al., 2006) rather than cultural or religious factors.

Use of maternal and neonatal care services

Delivery

Afghanistan

Afghanistan’s health services in the immediate post-conflict period were in an appalling state: In 2002, its maternal mortality ratio was the second highest in the world, reflecting a lack of access and utilisation of reproductive health services and skilled care during pregnancy, childbirth, and the first month after delivery. These services are key to saving women at risk of dying due to pregnancy and childbirth complications.

One barrier to expansion of these services was the lack of qualified female health workers, which is critical in a society where women seek care only from female providers (Ghulam et al., 2014: 1). **Midwives** facilitated behaviour change at the family and community levels. Since the Community Midwifery Education Programme was created in 2003, healthcare-seeking behaviour has increased, and more people (especially women) are visiting health facilities (Ghulam et al., 2014: 3). Between 2003 and 2013, the number of midwives increased from 467 to 2,245. Stakeholders believe that midwives have greatly helped to reduce maternal mortality, which fell from 1,600 in 2002 to 327 in 2010 (Ghulam et al., 2014: 1).

Bangladesh

BRAC Delivery Centres were established within slums to provide intra-natal care to mothers and immediate care to newborns. In terms of receiving antenatal care, delivery care, and postnatal care women showed very encouraging findings. Seventy-four percent of women received postnatal care 4 or more times, 57 percent of delivery took place at safe places including BRAC delivery (16 percent) centres and hospitals (Sarker et al., 2012: 38).

However, as approximately half of the deliveries were still attended at home by unskilled birth attendants, very few received postnatal care (PNC) within 48 hours after delivery. The poorest and illiterate women received fewer maternal health services from **medically trained providers (MTPs)** including during complications with delivery (Jolly et al., 2016). The authors conclude that the MANOSHI programme service coverage for delivery care and PNC-checkup for women who prefer home delivery needs to be improved. For sustainable improvement of maternal health outcomes in urban slums, the programme needs to facilitate access to services for poor and illiterate women.

India

Khan et al. (2013) found a significant impact of a BCC package on the behaviour of pregnant women regarding neonatal care in Firdaus Nagar and Nagla Qila, India, in a community-based study of pregnant women (the majority of which, 83 percent of the sample, were Muslim). In India, 56 percent of births take place at home. However, due to impact of a BCC intervention applied through **community health workers**, 37 percent of mothers preferred to deliver at institution in the intervention group than non-intervention (15 percent) group; delivery in institutions also improved significantly (relative risk, RR = 2.47, $p < 0.05$). Correct knowledge about danger signs and physiological conditions in newborns, and thereby need for appropriate service use, were also increased (RR = 2.5.0, $p < 0.05$ for cold to touch, RR = 1.22, $p < 0.05$ for peeling of skin).

Maternal healthcare

Ghana

An intervention evaluating the effectiveness of social and behaviour change communication (SBCC) through empowered **community leaders and cadres** to improve uptake of essential MNCH services was conducted in the East Mamprusi district of Northern Ghana, which has a long history of Islam (Saaka et al., 2017). This innovation focused on the community as the unit of change. Delivery of health and nutrition messages through BCC, training, outreach and counselling were the key activities. Health facility strengthening was done in all facilities to

improve quality of care. Community health workers were trained and supported to promote early and regular antenatal attendance.

There was a significant relative improvement in the proportion of women who could identify at least three danger signs during pregnancy, delivery and postpartum that needed the urgent attention of a health professional. Binary logistic regression revealed a significant improvement in maternal knowledge in at least 3 danger signs ($p < 0.001$) in the intervention group as compared to comparison group. Though there were significant differences in maternal knowledge in obstetric danger signs at baseline, these were not a significant determinant of maternal knowledge at follow-up (Saaka et al., 2017: 6).

Child health

Ethiopia

There are differences in healthcare-seeking behaviour across religion: for the case of child symptoms, Orthodox Christians are more likely to delay care than Muslims (Mebratie et al., 2014). This is opposite behaviour than for adult health conditions. It is possible that the religion variables reflect different levels of confidence and trust in the healthcare system, although the reasons for this are not entirely clear (ibid).

India

The number of poor urban Muslim women in Lucknow, northern India, who sought qualified medical care (e.g. GPs, NGCs or NGDs⁷) for sick newborns significantly increased from 46 to 65 percent ($p = 0.003$) after a socio-culturally contextualised BCC intervention using **one-to-one counselling along with a pictorial 'Neonatal Well-Being Card'** (Awasthi et al., 2009). Achieving such substantial behaviour changes over a short period of time was due to intensive promotional work.

⁷ Government Providers (GPs): These qualified medical practitioners were employed by the government and worked through government hospitals. To obtain their services, mothers had to pay nominal hospital registration fees. Mostly, medicines were provided free of charge.

Non-Governmental Consultants (NGCs): These healthcare providers worked through privately owned clinics/hospitals and gave formal prescription notes to their patients. Almost all of them had recognised medical qualifications. They charged for consultation and investigations, and prescribed medicines were purchased from a pharmacy.

Non-Governmental Dispensers (NGDs): These were also self-employed healthcare providers. The basic difference between these and the NGC was that the former dispensed medicines without prescription. Therefore, there was no record of medicines taken by their patients. Mostly, their service charge was inclusive of the cost of medicine. Unlike the NGCs, the NGDs were a heterogeneous group, some with a degree in modern medicine, others with qualifications in indigenous systems of medicine like Ayurveda, Unani and Homeopathy, who may also prescribe modern medicines. Yet there were many others who had no recognised qualifications (Awasthi et al., 2009).

General healthcare access

Philippines

From 2007 to 2012 USAID worked with the Department of Health of the Autonomous Region in Muslim Mindanao (DOH-ARMM) to launch the expanded child health communication and service delivery programme “Garantisadong Pambata” (GP, or “Guaranteed for Children”). The people in this region have limited access to health services and information (USAID HealthPRO, 2012: v); however, this BCC programme provided them with special attention. Innovative BCC approaches and channels to disseminate key health messages and motivate actions were used, including: an interactive voice response system on safe motherhood; providing health information and basic health services to isolated and disadvantaged communities through a **health caravan** (Lakbay Buhay Kalusugan), and setting up and linking “**forum**” **community theatre plays with health classes, health information materials, and referrals to services.**

Muslim Religious Leaders and Muslim Women Religious Scholars helped by conducting health classes, which reached 20,663 beneficiaries (USAID HealthPRO, 2012: 20 & 44); they, together with medical specialists, also helped provide appropriate health messages via **radio programmes** (USAID HealthPRO, 2012: 23). **TV adverts** were also used for promoting family planning for birth spacing (USAID HealthPRO, 2012: 27). The health caravan brought family health information and services to more than 44,000 men, women, and children in hard-to-reach areas (URC, 2012).

Immunisation services

Pakistan

Pakistan is one of only two remaining countries in the world where polio still exists. In the past the disease has persisted in Pakistan because of a disinformation campaign by the Taliban to halt immunisations, mistrust by some minority groups and vaccination administrators struggle to reach remote areas. Resistance against the immunisation programme has been noted in the northern province of Khyber Pakhtunkhwa and parts of Balochistan, which has a high level of Sunni Muslims (Basharat & Shaikh, 2017). Beliefs, practices and cultural norms have been shown to overshadow public health priorities and ethics (ibid). Therefore, several key activities in Pakistan are currently being carried out under the aegis of the ‘National Programme for Immunisation’ to increase access, inform the public and increase vaccination rates. These include **engagement with religious scholars, launching public campaigns focusing on behaviour change** and most notably **widening the outreach and coverage through female health workers**, who now are accompanied by security personnel because of conflict in certain border areas of Pakistan (ibid). Under E-Vaccs, an immunisation information system launched in 2014 by the Expanded Programme on Immunisation (EPI), an accompanying **smartphone application** for vaccinators was made that also stored real-time immunisation records onto a centralised database. Using these initiatives, geographical coverage ended up increasing from 25 percent in 2014 to 88 percent in 2016 (PITB, 2017).

Nigeria

In Nigeria, only 25 percent of children ages 12–23 months are fully immunised. In a study exploring variations in the uptake of routine immunisation where the majority of women were

Muslim (61.4 percent), results showed that children with Muslim mothers were less likely to be fully immunised compared with children with Christian mothers (odds ratio, OR = 0.68, $p < 0.01$) (Olorunsaiye & Degge, 2016: 23). However, other research in areas with strong Islamic influences has found that use of immunisation services in Muslim communities may have more to do with political underpinnings (Ophori et al., 2014: 73) rather than religion (Taylor, 2015: 5).

Reproductive health (RH) and family planning (FP) services

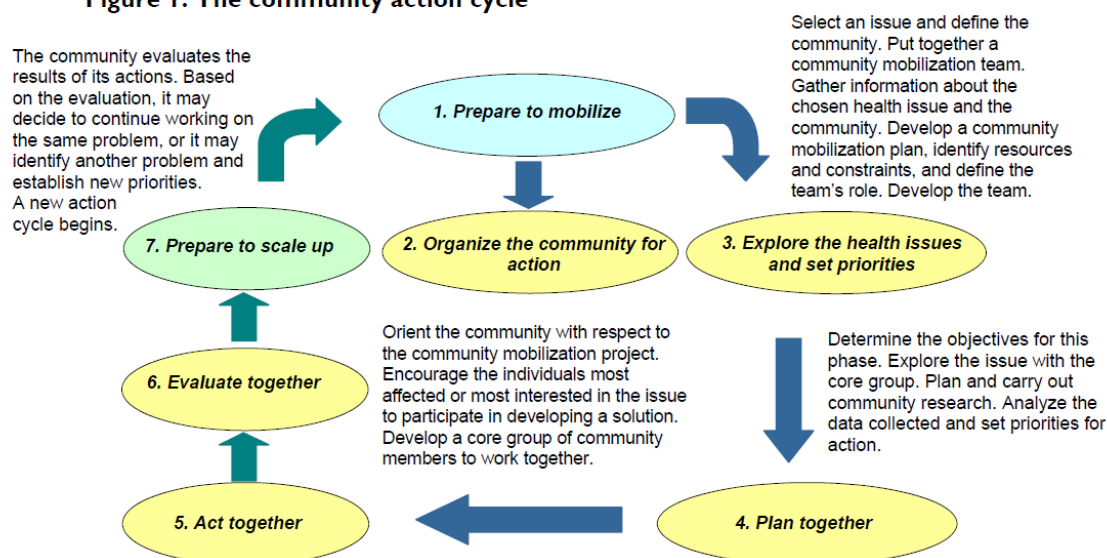
Religious opposition sometimes can be a deterrent to contraceptive use, although sometimes people are unaware of sexual and reproductive health and rights (SRHR) services available to them. One of the challenges reported by village midwives in delivering LAPM services in Indonesia, was confusion about midwives' eligibility to provide LAPM services (Titaley et al., 2017).

The ACQUIRE Project

The ACQUIRE Project uses a community mobilization model based on the community action cycle (see **Figure 1** below). The 'Men As Partners' project was integrated into ACQUIRE's efforts to improve the acceptability, awareness, and use of vasectomy services (Bangladesh and Ghana), and was an important element of community interventions designed to improve access to post-abortion care (Kenya), intrauterine devices (Guinea and Kenya), and RH services for married youth (Bangladesh and Nepal) (The ACQUIRE Project, 2008: 15). For example, in the Nakuru District in Kenya, the 'Community Post-Abortion Care Model' (COMMPAC) project led communities to develop health emergency transport plans and PAC payment⁸ schemes, as well as successfully advocate with the local government for funds to build roads, construct bridges, and build new dispensaries to improve women's access to public-sector services. Contraceptive use increased during the project period in 22 health facilities adjacent to the COMMPAC communities from 8,500 to 13,800 new users, and from 2,000 to 4,300 continuing users. USAID/Kenya is promoting COMMPAC as a model for other provinces (The ACQUIRE Project, 2008).

⁸ Pre-authorized Charge (PAC) is a secure, electronic payment service.

Figure 1. The community action cycle



Source: The ACQUIRE Project/EngenderHealth (2007: 1)

Benin

Since 2012, the University Research Co. LLC (URC) has been helping to improve 1) the quality of reproductive health services at health facilities, 2) community-based FP promotion, and 3) distribution and gender activities targeting FP in Benin's Couffo and Borgou health zones (URC, 2017). 85 percent of **community leaders** were trained on gender, FP, and communication and applied their learning in the two months after the training. Achievements include improved the provision of FP counselling to health facility clients of reproductive age from 12 to 21 percent in Borgou and 31 to 48 percent in Couffo (ibid).

Kenya and Tanzania

Mobile technology was successfully used to refer clients to a clinic for services, particularly if people wanted to know about methods that the community health workers could not provide (Johnson et al., 2014).

Kenya and Malawi

Young people face greater reproductive health risks than adults, yet they are less willing and able to access reproductive health services. Lack of awareness, inadequate information and poor quality of reproductive health services that are not responding to young people's specific needs, are barriers to young people (Joysila Consultancy, 2016: 10).

In Mombasa, Kenya, researchers were informed that socio-cultural norms, religious doctrines, poverty and lack of education have and continue to hamper the effectiveness of the implemented 'Access, Services and Knowledge' (ASK) programme approaches in SRHR (Joysila Consultancy, 2016: 33). The Muslim youth are encouraged to use withdrawal method during sexual intercourse as opposed to other methods. According to the female respondents in Mombasa, Muslims were initially not enthusiastic about changing sexual reproductive health behaviour. An

overall observation is that ASK programme activities are often small in scale and short lived to realise significant impact (Joysila Consultancy, 2016: 2). They are also generally poorly monitored, evaluated, and documented. There is also little evidence of involvement of the young people as the target population at the programme design (ibid).

In 2011 the 'Unite For Body Rights' (UFBR) programme 'My Choice My Future' started in Malawi. Simavi's partner organisation Youth Net and Counselling (YONECO) implemented the programme in the majority Muslim district of Mangochi, Malawi. Within the whole UFBR programme YONECO created a BCC **'texting and hotline'** method. Results show that more young people now visit the health services for SRHR. Also, contraceptive use increased (Simavi, 2015).

Pakistan

Although there has never been any vocal opposition to FP by religious conservatives in Pakistan, successive governments fearful of a backlash have been cautious in involving religious leaders in FP activities. This lack of engagement has led to "ambiguity in the minds of the public" about the acceptability of FP in Islam (Mir & Shaikh, 2013: 228).

A USAID-sponsored FP project called 'FALAH' (Family Advancement for Life and Health), implemented in 20 districts of Pakistan, aimed to lower unmet need for FP by improving access to services. This project engaged **men** through multiple strategies, including: **male motivators and peers; mass media; theatre performances; men's groups, and religious leaders.**

To enhance the quality of care offered by the public health system, the FALAH project trained 10,534 **facility-based health care providers, managers, and medical college faculty members** to offer client-centred FP services. This included a module to explain the Islamic viewpoint on FP developed through an iterative process involving religious scholars and public health experts. At the end of the FALAH project changes in women's contraceptive use were noted. Over the 3.5-year project period, which included several components in addition to the training activity, an overall increase of 9 percentage points in contraceptive prevalence in the project implementation districts - from 29 percent to 38 percent - was found (Mir & Shaikh, 2013: 233).

As a result, the 'Islam and FP' module has now been included in the teaching programme of major public-sector medical universities and the Regional Training Institutes of the Population Welfare Department. Other countries with sizeable Muslim populations and low contraceptive prevalence could benefit from using this module (Mir & Shaikh, 2013: 234-235).

4. References

- Ababu, Y., Braka, F., Teka, A., Getachew, K., Tadesse, T., Michael, Y., Birhanu, Z., Nsubuga, P., Assefa, T., & Gallagher, K. (2017). Behavioral determinants of immunization service utilization in Ethiopia: a cross-sectional community-based survey. *The Pan African Medical Journal*, 27(2), 2. DOI: [10.11604/pamj.suppl.2017.27.2.10635](https://doi.org/10.11604/pamj.suppl.2017.27.2.10635)
- Adulyarat, M., Parisunyakul, S., Srisuphan, W., & Senaratana, W. (2016). Development of a Culturally-based Care Model for Muslim Mothers in a Rural Community in Southern Thailand. *Journal of Population and Social Studies*, 24(2), 49 - 65. DOI: [10.14456/jpss.2016.5](https://doi.org/10.14456/jpss.2016.5)

Alvesson, H.M., & Mulder-Sibanda, M. (2013). *The Potential for Integrating Community-Based Nutrition and Postpartum Family planning: Review of Evidence and Experience in Low-Income Settings*. HNP Discussion Paper. November 2013. Health, Nutrition, and Population (HNP) Family of the World Bank's Human Development Network (HDN).
<http://documents.worldbank.org/curated/en/773931468339020379/pdf/857430WP0Commu00Box382162B00PUBLIC0.pdf>

Awasthi, S., Srivastava, N.M., Agarwal, G.G., Pant, S., & Ahluwalia, T.P. (2009). Effect of behaviour change communication on qualified medical care-seeking for sick neonates among urban poor in Lucknow, northern India: a before and after intervention study. *Tropical Medicine and International Health*, 14(10), 1199-1209.
DOI: 10.1111/j.1365-3156.2009.02365.x

Basharat S., & Shaikh, B.T. (2017). Polio immunization in Pakistan: ethical issues and challenges. *Public Health Reviews*, 38: 6.
<https://publichealthreviews.biomedcentral.com/articles/10.1186/s40985-017-0049-4>

Brodmann, S., & Mouhamed, S. (2016). *Nutrition-sensitive Social Protection in Djibouti*. Secure Nutrition Seminar Series, Washington D.C. 23 February 2016.
<http://www.securenutrition.org/sites/default/files/resources/SecureNutrition%20Seminar%20Series%20-%20Feb%2023%202016%20-%20Djibouti.pdf>

Ethiopian Society of Population Studies (2008). *Maternal health care seeking behaviour in Ethiopia: findings from EDHS 2005*. Addis Ababa: ESPS, 14–29.

FHI 360 (2017). *Behavior change communication*.
<https://www.fhi360.org/expertise/behavior-change-communication>

Ghulam, S., Mohmand, K.A., & El-Saharty, S. (2014). *Community Midwifery Education Program in Afghanistan*. November 2014. World Bank Group – Knowledge Brief.
https://www.researchgate.net/profile/Sameh_El-Saharty/publication/271215220_Community_Midwifery_Education_Program_in_Afghanistan/links/54c2b950cf219bbe4e954c5/Community-Midwifery-Education-Program-in-Afghanistan.pdf

Hassan, S.H. (2015). Effects of Religious Behavior on Health-Related Lifestyles of Muslims in Malaysia. *Journal of Religion and Health*, 54(4), 1238–1248.
<https://link.springer.com/article/10.1007/s10943-014-9861-z>

Hornik, R., Naugle, D., Smith, W., & Trevors, T. (2015). *Investing in Communication for Nutrition Related to Agriculture in India*.
http://repository.upenn.edu/asc_papers/422

Johnson, D., Riley, P., Juras, R., L'Engle, K., & Choi, S. (2014). Impact Evaluation of a Family planning mHealth Service in Kenya. Making Impact Evaluation Matter: Better Evidence for Effective Policies and Programmes. 4 September 2014.
http://www.3ieimpact.org/media/filer_public/2014/09/18/39improving_health_outcomes_through_private_sector_interventions-_experimental_johnson.pdf

Joysila Consultancy (2016). *Evaluation of the Processes, Practices and Effects from the Activities of Women Fighting AIDS in Kenya (WOFAK) within the Access, Services and Knowledge (ASK) Programme*. Final Report. Stop AIDS Now! (SAN!) & Women Fighting AIDS in Kenya (WOFAK).
https://www.rutgers.international/sites/rutgersorg/files/Operational_Research_pdf/13.%20Women_Fighting_AIDS_Kenya_final.pdf

Khan, M.H., Khalique, N., Siddiqui, A.R., & Amir, A. (2013). Impact of behavior change communication among pregnant women regarding neonatal care. *Indian Journal of Pediatrics*, 80(10), 804-808.

DOI: [10.1007/s12098-013-1076-x](https://doi.org/10.1007/s12098-013-1076-x)

Killewo, J., Anwar, I., Bashir, I., Yunus, M., & Chakraborty, J. (2006). Perceived Delay in Healthcare-seeking for Episodes of Serious Illness and Its Implications for Safe Motherhood Interventions in Rural Bangladesh. *Journal of Health, Population and Nutrition*, 24(4), 403–412.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3001144/>

Mangone, E.R., Agarwal, S., L'Engle, K., Lasway, C., Zan, T., van Beijma, H., Orkis, J., & Karam, R. (2016). Sustainable Cost Models for mHealth at Scale: Modeling Program Data from m4RH Tanzania. *PLOS ONE*, 11(1), e0148011.

<https://doi.org/10.1371/journal.pone.0148011>

Mebratie, A.D., van de Poel, E., Yilma, Z., Abebaw, D., Alemu, G., & Bedi, A.S. (2014). Healthcare-seeking behaviour in rural Ethiopia: evidence from clinical vignettes. *BMJ Open*, 4, e004020.

DOI: [10.1136/bmjopen-2013-004020](https://doi.org/10.1136/bmjopen-2013-004020)

MCHIP Egypt – SMART Program (2014). *End-of-Project Report*. October 2011–June 2014.

<http://www.mchip.net/sites/default/files/Egypt%20SMART%20End-of-Project%20Report.pdf>

Mir, A.M., & Shaikh, G.R. (2013). Islam and family planning: changing perceptions of health care providers and medical faculty in Pakistan. *Global Health, Science and Practice*, 1(2), 228-236.

DOI: [10.9745/GHSP-D-13-00019](https://doi.org/10.9745/GHSP-D-13-00019).

Mwaikambo, L., Speizer, I.S., Schurmann, A., Morgan, G., & Fikree, F. (2011). What works in family planning interventions: a systematic review of the evidence. *Studies in Family planning*, 42, 67-82.

Najimi, A., & Ghaffari, M. (2013). Promoting fruit and vegetable consumption among students: A randomized controlled trial based on social cognitive theory. *Journal of the Pakistan Medical Association*, 63(10), 1235-1240.

http://jpma.org.pk/full_article_text.php?article_id=4895

Naugle, D.A., & Hornik, R.C. (2014). Systematic Review of the Effectiveness of Mass Media Interventions for Child Survival in Low- and Middle-Income Countries. *Journal of Health Communication: International Perspectives*, 19(1), 190-215.

DOI: [10.1080/10810730.2014.918217](https://doi.org/10.1080/10810730.2014.918217)

Olorunsaiye, C.Z., & Degge, H. (2016). Variations in the Uptake of Routine Immunization in Nigeria: Examining Determinants of Inequitable Access. *Global Health Communication*, 2(1), 19-29.

<http://dx.doi.org/10.1080/23762004.2016.1206780>

Ophori, E.A., Tula, M.Y., Azih, A.V., Okojie, R., & Ikpo, P.E. (2014). Current trends of immunization in Nigeria: Prospects and challenges. *Tropical Medicine and Health*, 42(2), 67–75.

DOI: [10.2149/tmh.2013-13](https://doi.org/10.2149/tmh.2013-13)

PITB – Punjab IT Board (2017). *Impact Evaluation*.

<http://open.punjab.gov.pk/evaccs/>

Premand, P., (2016). *Rapport de l'Evaluation d'Impact du Projet Filets Sociaux au Niger*. Washington, D.C.: World Bank Group.

<http://documents.worldbank.org/curated/en/122221467609922455/pdf/ACS18664-WP-PUBLIC->

FRENCH-Rapport-de-l'Evaluation-d'Impact-du-Projet-Filets-Sociaux-au-Niger-Version-Francaise-has-been-approved-P133583.pdf

Premand, P., & del Ninno, C. (2016). *Nutrition-sensitive Social Protection in Niger*. Secure Nutrition Seminar Series, Washington D.C. 23 February 2016.

<http://www.securenutrition.org/sites/default/files/resources/SecureNutrition%20Seminar%20Series%20-%20Feb%2023%202016%20-%20Niger.pdf>

Rahman, A., Leppard, M., Rashid, S., Jahan, N., & Nasreen, H.E. (2016). Community perceptions of behaviour change communication interventions of the maternal neonatal and child health programme in rural Bangladesh: an exploratory study. *BMC Health Services Research*, 16, 389.

<https://doi.org/10.1186/s12913-016-1632-y>

Saaka, M., Aryee, P., Kuganab-lem, R., Ali, M., & Masahudu, A.R. (2017). The effect of social behaviour change communication package on maternal knowledge in obstetric danger signs among mothers in East Mamprusi District of Ghana. *Globalization and Health*, 13, 19.

<https://doi.org/10.1186/s12992-017-0243-7>

Sarker, B.K., Mridha, M.K., Dasgupta, S.K., Islam, N., & Reichenbach, L. (2012). *The effect of behaviour change communication (BCC) interventions on maternal and child health (MNCH) knowledge in urban slums of Bangladesh*. January 2012. MANOSHI working paper series No.17.

https://www.researchgate.net/profile/Noushin_Islam/publication/231537355_The_effect_of_behavior_change_communication_BCC_interventions_on_maternal_neonatal_and_child_health_MNCH_knowledge_in_urban_slums_of_Bangladesh_No_17_January_2012/links/0912f506bad32cd61b000000.pdf

Salehi, L., Mohammad, K., & Montazeri, A. (2011). Fruit and vegetables intake among elderly Iranians: a theory-based interventional study using the five-a-day program. *Nutrition Journal*, 14(10), 123.

DOI: [10.1186/1475-2891-10-123](https://doi.org/10.1186/1475-2891-10-123)

Simavi (2015). *Behaviour Change Communication in Health*.

https://simavi.org/wp-content/uploads/2015/03/150317_7300037_Factsheet_Simavi_Behaviour-Change-Communication.pdf

Simavi Annual Report (2015). *Annex 1 Programme results overview 2015*.

https://issuu.com/simavinl/docs/simavi_annual_report_2015_issuu/89

Tan, M. Y., Magarey, J. M., Chee, S. S., Lee, L. F. & Tan, M. H. (2011). A brief structured education programme enhances self-care practices and improves glycaemic control in Malaysians with poorly controlled diabetes. *Health Education Research*, 26(5), 896-907.

DOI: [10.1093/her/cyr047](https://doi.org/10.1093/her/cyr047)

Taylor, S. (2015). *Perceptions of influence: Understanding attitudes to polio vaccination and immunisation in northern Nigeria: Main research report. The Maternal and Child Survival Program*.

<https://www.cominit.com/files/perceptionsofinfluence.pdf>

The ACQUIRE Project (2006). *Revitalizing the IUD in Kenya*. Acquiring Knowledge. Applying Lessons Learned to Strengthen FP/RH Services. No.2. The ACQUIRE Project/EngenderHealth, New York.

<https://www.k4health.org/sites/default/files/revitalizing%20the%20iud%20in%20kenya.pdf>

The ACQUIRE Project/EngenderHealth (2007). *Community Postabortion Care Project (COMMPAC) in Nakuru District, Kenya: Summary Report, Phase I: July 2005-September 2006*.

December 2007.

http://www.engenderhealth.org/files/pubs/acquire-digital-archive/5.0_community_engagement_marketing_and_communications/5.2_resources/5.2.2_studies/commpac_kenya_report_final.pdf

The ACQUIRE Project (2008). *The Acquire Project End of Project Report to USAID*. 1 October 2003 – 30 September 2008. New York, New York.

http://pdf.usaid.gov/pdf_docs/pdacm767.pdf

Titaley, C.R., Wijayanti, R.U., Damayanti, R., Setiawan, A.D., Dadun, Dachlia, D., Siagian, F., Suparno, H., Saputri, D.A.Y., Harlan, S., Wahyuningrum, Y., & Storey, D. (2017). Increasing the uptake of long-acting and permanent methods of family planning: A qualitative study with village midwives in East Java and Nusa Tenggara Barat Provinces, Indonesia. *Midwifery*, 53, 55-62.

<https://doi.org/10.1016/j.midw.2017.07.014>

URC – University Research Co. LLC (2012). *USAID Health Promotion and Communication Project (HealthPRO)*.

<http://www.urc-chs.com/projects/usaids-health-promotion-and-communication-project-healthpro>

URC – University Research Co. LLC (2017). *Benin Muskoka*.

<http://www.urc-chs.com/projects/benin-muskoka>

USAID HealthPRO - Health Promotion and Communication Project (2012). *Health Promotion and Communication Project in The Philippines. Final Report*.

http://webcache.googleusercontent.com/search?q=cache:aW0aXMBC3qUJ:pdf.usaid.gov/pdf_docs/pdac y178.pdf+&cd=4&hl=en&ct=clnk&gl=uk

Wafa, S., Talib, R., Hamzaid, N., McColl, J.H., Rajikan, R., Ng, L., Ramli, A.H., & Reilly, J.J. (2011). Randomized controlled trial of a good practice approach to treatment of childhood obesity in Malaysia: Malaysian Childhood Obesity Treatment Trial (MASCOT). *International Journal of Pediatric Obesity*, 6(2-2), e62-e69.

DOI: [10.3109/17477166.2011.566340](https://doi.org/10.3109/17477166.2011.566340)

Wakefield, M.A., Loken, B., & Hornik, R.C. (2010). Use of mass media campaigns to change health behaviour. *Lancet*, 376, 1261-1271.

[http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(10\)60809-4.pdf](http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(10)60809-4.pdf)

Webair, H.H., & Bin-Gouth, A.S. (2013). Factors affecting health seeking behavior for common childhood illnesses in Yemen. *Patient Prefer Adherence*, 7, 1129–1138.

DOI: [10.2147/PPA.S51124](https://doi.org/10.2147/PPA.S51124)

Wight, D., Plummer, M., & Ross, D. (2012). The need to promote behaviour change at the cultural level: one factor explaining the limited impact of the *MEMA kwa Vijana* adolescent sexual health intervention in rural Tanzania. A process evaluation. *BMC Public Health*, 12, 788.

DOI: [10.1186/1471-2458-12-788](https://doi.org/10.1186/1471-2458-12-788)

Acknowledgements

We thank the following experts who voluntarily provided suggestions for relevant literature or other advice to the author to support the preparation of this report. The content of the report is the sole responsibility of the author, and does not necessarily reflect the opinions of any of the experts consulted.

- Louise Dye, Marisol Warthon Medina and Lizzie Caperon, University of Leeds
- Susan Krenn, Johns Hopkins Bloomberg School of Public Health

Suggested citation

Tull, K. (2017). *Behaviour-change communication on health related issues (part two)*. K4D Helpdesk Report 182. Brighton, UK: Institute of Development Studies.

About this report

This report is based on five days of desk-based research. The K4D research helpdesk provides rapid syntheses of a selection of recent relevant literature and international expert thinking in response to specific questions relating to international development. For any enquiries, contact helpdesk@k4d.info.

K4D services are provided by a consortium of leading organisations working in international development, led by the Institute of Development Studies (IDS), with Education Development Trust, Itad, University of Leeds Nuffield Centre for International Health and Development, Liverpool School of Tropical Medicine (LSTM), University of Birmingham International Development Department (IDD) and the University of Manchester Humanitarian and Conflict Response Institute (HCRI).

This report was prepared for the UK Government's Department for International Development (DFID) and its partners in support of pro-poor programmes. It is licensed for non-commercial purposes only. K4D cannot be held responsible for errors or any consequences arising from the use of information contained in this report. Any views and opinions expressed do not necessarily reflect those of DFID, K4D or any other contributing organisation. © DFID - Crown copyright 2017.

