

# Community-wide interventions for social and behaviour change

## Key points

- In a large HIV prevention programme for sex workers and their clients in India, community mobilization and empowerment approaches were associated with increased condom use by the clients of sex workers, a decline in HIV prevalence among sex workers in some areas and a decline in HIV prevalence among pregnant women in intervention areas.
- Initial studies showed that conditional or unconditional cash transfers reduce HIV and STI prevalence and some HIV risk behaviours, and that such transfers may represent a promising behavioural intervention with growing evidence of effectiveness. However, subsequent trials have not found HIV incidence reductions, and further research is needed.
- Although most cash transfer programmes have been conditional on school attendance or testing negative for some STIs, there is evidence that unconditional cash transfers for girls of school age can also work to reduce HIV prevalence.

Community-wide HIV prevention interventions vary considerably in their rationale and form. Most are informed by an understanding that an individual's health behaviours are subject to the influence of community members and leaders, and to social norms and structural factors. They address people not just as individuals, but also as connected members of groups, networks and communities who interact and have relationships with each other.

## Community empowerment and mobilization approaches that support behaviour change

### What does the evidence say about community mobilization and empowerment approaches?

- Community mobilization and empowerment approaches have been associated with increased condom use by clients of sex workers, a decline in HIV prevalence among sex workers in some areas and a decline in HIV prevalence among pregnant women.

Some (but not all) theories of individual behaviour change—such as social cognitive theory and the theory of planned behaviour—recognize that an individual's perception of the social environment can affect his or her health behaviours. For example, beliefs about what behaviours are typical or whether peers would approve of a specific behaviour influence individual choices. Interventions may therefore seek to bring issues of gender, sexuality and HIV into the public realm where they can be discussed and debated. Highly visible programmes may raise awareness of HIV within a community, build support for altered expectations of behaviour and create demand for HIV prevention services.

Community mobilization approaches seek to create and harness the agency of groups that are highly vulnerable to HIV, enabling them to build a collective response through their full participation in the design, implementation and leadership of health programmes. In addition to making programmes more relevant, acceptable and effective, it is argued that community mobilization approaches help to develop a stronger sense of agency within marginalized groups. Individuals with wider networks and deeper trust relationships may have a stronger sense of self-confidence, self-esteem and hope, and they may be able to exert greater control over decision-making.

Rather than remaining focused on problems, programmes within a community mobilization approach may seek to build upon and strengthen the assets (strengths, skills, resources and relationships) of a particular group. Community mobilization also may involve building supportive relationships and partnerships with powerful groups outside the community in order to address structural barriers (202). Programmes often combine several approaches, and community interventions may focus on a particular geographical area or social institution, such as a district, peri-urban area or workplace. Identification of priority locations for interventions should be based on an analysis of epidemiological and behavioural trends (203).

### Community empowerment and mobilization for disadvantaged groups

Community empowerment and mobilization interventions have often been developed through work with disempowered groups like sex workers. These interventions aim to enable sex workers to have greater control over the environmental factors (such as working conditions) that make them vulnerable to HIV. While these interventions are strongly recommended by WHO and UNAIDS, this was done on the basis of values, an analysis of the balance of potential benefits and harms, and limited observational data (204).

A systematic review identified 10 studies that included community empowerment and mobilization interventions for sex workers; of those, only one was a randomized controlled

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trial (204). The data suggest that interventions reduce the prevalence of HIV and other STIs, and that they increase the use of condoms among sex workers and their clients. Another systematic review did not identify any randomized studies reporting positive effects on consistent condom use or HIV knowledge among sex workers, nor did it find any studies that assessed HIV incidence (179).

### **Working with popular opinion leaders**

A group randomized trial in five countries that featured follow-up over two years assessed the impact of training and engaging the popular opinion leaders of key populations at high risk to personally endorse HIV prevention (205). The programme, based on an intervention first delivered to gay men and other men who have sex with men in the United States (206), was grounded in the theory of the diffusion of innovation (207). The trial was delivered in five countries with diverse epidemiological situations (China, India, Peru, the Russian Federation and Zimbabwe) and different populations that are vulnerable to infection. For example, the intervention was delivered to groups of market workers in China and to alcohol drinkers in India. Popular opinion leaders from each group receiving the intervention were trained to: (a) provide knowledge about HIV, AIDS and STIs and risk reduction steps; (b) suggest strategies that peers could use to reduce risk; (c) instil confidence about using condoms; and (d) personally endorse behaviour change (205).

In each country, ethnographic assessments helped identify appropriate settings, populations, and social and cultural factors that the programme needed to address. The specific characteristics of popular opinion leaders (such as age, gender or life experience) also were identified (208). While the programme was developed by foreign experts, it was delivered by locals, and the main activities of popular opinion leaders were standardized.

The trial's results were disappointing in terms of intervention effects: the community-wide intervention did not result in greater declines in unprotected sex with casual partners among intervention groups, and there were no differences in the incidence of HIV and other STIs between the intervention and control groups (205). At the same time, significant declines in unprotected sex with casual partners were observed in both intervention and control groups. It is worth considering whether a more flexible and open-ended project would have led to different social processes and effects (although it would have made the outcomes more difficult to evaluate) (209).

Another explanation for the lack of difference between the two arms in the trial is that control groups received more extensive prevention interventions than were normally available in the trial settings. Comparing the community-wide intervention with the basic prevention services available to control groups in communities might have resulted in more significant differences between the two arms. The assessment procedures of the trial (detailed self-review of risk behaviour and HIV risk reduction counselling prior to HIV and STI testing) could have had an impact on behaviour. This is a common problem in HIV prevention trials (including trials of biomedical interventions), but in this trial, the reduction in self-reported risk behaviour over time in both trial arms was particularly noticeable (210).

## Economic incentives supporting behaviour change

### What does the evidence say about the effects of economic incentives on behaviour and HIV incidence?

- Some studies showed that conditional or unconditional cash transfers were effective in reducing HIV and STI prevalence and some HIV risk behaviours.
- Subsequent larger, well-controlled trials have not replicated the earlier promising results mentioned above, suggesting that the effect of economic incentives on HIV prevention-related outcomes is specific to a context.
- Further research is needed to establish the effect of economic incentives on sexual behaviour and HIV incidence.

In many settings where HIV is transmitted heterosexually, vulnerability to HIV is associated with gender inequality, economic insecurity and a lack of social capital. The combination of these factors makes women more dependent on men, more likely to have sexual relationships that are partly motivated by economic gain (either transactional sex or sex work), and more likely to have older partners (who, in turn, are more likely to be HIV-positive). Sexual relationships may help an individual broaden her social network and allow access to new social and economic opportunities, while power imbalances can make it challenging for women to insist on monogamy, discuss condom use, refuse sex or leave a high-risk relationship.

Structural interventions—such as changes to inheritance and land rights, marriage and divorce laws, and economic policy—can attempt to modify these factors (211, 212). There is a wealth of literature on the effect of economic incentives on various health and social outcomes. Cash and other social transfers have already been widely used in Latin America and sub-Saharan Africa to alleviate poverty, promote participation in education and encourage healthy behaviours (213).

In relation to HIV prevention, economic incentives aim to affect the sexual or HIV service-related behaviour of specific individuals and clearly defined groups. Cash payments provided without having to undergo certain activities may reduce financial barriers to school attendance, which is significant, because education, particularly for girls, is instrumental in achieving multiple development objectives, including a reduction in the risk of acquiring HIV. Such cash payments are known as “unconditional cash transfers.”

Alternatively, cash payments may only be provided once participants have undertaken a particular activity (such as girls attending school). These payments are known as “conditional cash transfers,” and they may be adapted to be conditional on individuals taking specific actions related to health. For example, payments might be made when an individual completes a course of immunization, takes an HIV test or abstains from drug use (assessed by urine testing).

The wider effects of structural interventions (including economic empowerment) will be discussed in a separate compendium. The focus of this section is on the effects of economic incentives on sexual behaviour.

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## **Evidence of effectiveness of economic incentives**

A 2012 systematic review of conditional cash transfer programmes in low- and middle-income countries concluded that they may be an effective way to increase the uptake of prevention services and improve some health outcomes (214). This review identified 16 relevant studies of interventions using cash payments (including six that were still underway) that had the aim of preventing the sexual transmission of HIV. Almost all were randomized controlled trials conducted with adolescents in developing countries.

Of 10 studies that reported on HIV behaviours, nine found a positive impact. However, most were small studies, and only one large randomized controlled trial with results on HIV outcomes had been published in a peer-reviewed journal in 2012. This was a cluster randomized trial in the Zomba district of Malawi, an area where both HIV prevalence and school dropout rates were high among adolescent girls (215). In the intervention arms of the trial, financial incentives were offered to households with a total of 1289 unmarried school girls aged 13 to 22 years. Some of the payments were conditional on regular school attendance, while others were unconditional and provided regardless of school attendance. Some payments were made to the parents and some were made directly to the girls. There was no intervention in the control arm.

Eighteen months after the programme began, HIV prevalence was 1.2% among those receiving payments compared to 3.0% in the control group, a reduction of 64% (adjusted OR = 0.36; 95% CI: 0.14–0.91). Similarly, the prevalence of HSV-2 was 76% lower (215).

Importantly, no significant differences in health outcomes were detected between those offered conditional or unconditional payments. This raises the question of whether the programme worked not because it incentivized particular behaviours, but because it reduced poverty. Girls receiving the payments reported fewer sexual acts and were less likely to have older partners, and it was hypothesized that the additional income may have made them less dependent on sex as a way of obtaining essential resources (215).

Cash transfer programmes may not necessarily need to have HIV prevention objectives in mind to be beneficial. For example, cash transfers for the caregivers of orphans and vulnerable children in Kenya helped keep young people in school. Four years after the Kenyan programme, a comparison of households (both those randomized to receive the cash transfer and those randomized to a control group) showed that the cash transfers were associated with reduced odds of sexual debut (adjusted OR = 0.69; 95% CI: 0.53–0.89) (216).

In South Africa, a national longitudinal study of an existing publicly funded cash grant programme showed similar results. Adolescent girls in the more than 3000 families receiving regular “child support grants” or “foster child grants” showed a 53% reduction in incidence of transactional sex and a 71% reduction in age-disparate sex (217). However, cash transfers did not reduce multiple partners, unprotected sex or sex while drunk or using drugs.

Despite these results, providing cash for school attendance in order to prevent HIV infection will only be relevant in settings where there are financial barriers to schooling and where schooling can be shown to be protective against HIV. For example, two large-scale, carefully conducted randomized controlled trials in South Africa attempted to keep young people in school through the payment of conditional cash transfers. In the first study, no effect of the cash transfers was detected, as nearly identical proportions of students remained in school in the intervention and control communities (218). The second study (which has not yet been

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published in a peer-reviewed journal) used conditional cash transfers tied to HIV testing, participation in life skills training and academic attainment. While the intervention was effective in decreasing HSV-2 incidence in the intervention group, no difference in HIV incidence was found (219). One additional large trial of conditional cash transfers, the Iringa Combination HIV Prevention Trial, has yet to report results.

These large, well-designed randomized studies have not confirmed findings related to the HIV prevalence reduction of the Malawi randomized controlled trial (215); instead, they illustrate that the effect of economic incentives is likely contextual. Effects are likely smaller in contexts where other social transfers already exist (like in South Africa), and cash transfers are therefore less likely to affect school attendance.

Some trials have directly incentivized safer sexual behaviour by making payments conditional on testing negative for curable STIs. In the United Republic of Tanzania, the randomized RESPECT study offered financial incentives to individuals who remained free of curable STIs: US\$ 10 every four months they remained STI-free (221). Those who were offered payments had the same infection rates as the control group, whereas those offered US\$ 20 for remaining STI-free for four months had 27% fewer infections (RR = 0.73; 95% CI: 0.47–0.99) at the end of the one-year programme. A participant in the second group could earn US\$ 60 in a year, approximately a quarter of the average annual income in the area. Larger effects were seen among poorer households and in rural areas.

One year after the programme of cash payments and regular STI testing ended, researchers returned to the intervention communities to see if the benefit had been sustained. Infection rates remained lower among men, but not women (222). Qualitative research showed that the cash rewards and knowledge derived from regular STI testing worked synergistically, opening opportunities for individuals to discuss and negotiate risk reduction strategies with partners (223). However, the study did not include HIV biomarkers to detect differences in HIV incidence.

Since providing cash incentives to a large number of people is very expensive, an alternative approach was explored in which all participants have a chance to receive the incentive for safe behaviour, but only some participants receive it. In Lesotho, a trial used a lottery to decide who would receive the incentive. The results, which indicate a 25% reduction in new HIV infections, are not yet published in a journal (220). One concern with this type of intervention is that lotteries are a form of gambling, which may in itself be seen as problematic: using lotteries for HIV prevention might undermine messages intended to prevent gambling addiction and messages on financial literacy, which are about planning rather than relying on chance.

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## Operational considerations

### Community mobilization: operational considerations

In 2007, UNAIDS recommended that exceptional efforts and resources were needed in generalized and hyperendemic settings to mobilize entire communities to change social norms and sexual behaviours: “Prevention programmes should include public information and social mobilization campaigns that instigate social debate and change around gender norms that condone or encourage multiple sexual partner relations or sexual violence” (224).

Community norms around health-seeking behaviour and concepts of masculinity require a similar approach, particularly in relation to new HIV prevention technologies—including antiretroviral therapy-based strategies—and their limited uptake or inconsistent use, particularly among men. Nonetheless, the evidence reviewed does not provide a clear blueprint for how to mobilize communities, in part because the durations of research studies are not commensurate with the time needed for such profound social change to occur. In other words, there is a difference between community mobilization projects, which can be evaluated in trial settings, and community mobilization as a whole: the latter is a complex process that must progress from policy change and leadership engagement through to community participation and normative change.

Interventions addressing community norms need to be carefully presented to groups and settings where HIV transmission is occurring. This is especially important in relation to key populations, either in generalized or concentrated epidemics. For example, there may be particular settings where risk behaviours are frequent or promoted, such as roadside truck stops associated with sex work or saunas where casual sex occurs between men. Such settings provide natural locations for outreach and community-based work.

As with the more intensive individual and group interventions, programmes should not be based on the assumption that all individuals have the autonomy to make decisions about healthy choices. A recent systematic review of interventions for women and girls in low- and middle-income countries—most of which had a community element—was unable to identify interventions that had a substantial impact on behavioural or biological outcomes (225). The review’s authors noted that a woman’s behaviour may not be high-risk, but that her susceptibility may be entirely driven by her husband’s behaviour, over which she has no control. Finding an effective way to reduce the prevalence of concurrent sexual relationships among partners or to address fundamental gender inequities may be more important than addressing the behaviour of women themselves.

A recent review suggested that many programmes described as a type of community mobilization are conceived by external experts and imposed on communities in top-down ways (209). Such interventions may be more likely to focus narrowly on health-related behaviours than projects that allow community members to set the agendas. The review also found that what is called “community mobilization” was often limited and tokenistic: for example, the entire mobilization might be limited to using community members to gain access to their social networks or involving them in the delivery of a pre-planned intervention.

A more authentic form of community mobilization would be an open-ended and complex process that fosters supportive relationships within the community, is open to a wide range of activities and engages with the broader social and political context. This was done in the Sonagachi Project in Kolkata, India, a programme that was the basis for many subsequent community mobilization interventions. The Sonagachi Project included sex worker groups

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conducting advocacy with the police, local government and brothel owners, and it included child health and welfare efforts, literacy classes for sex workers and a cooperative savings and credit scheme (226, 227). The review's authors argued that the community mobilization interventions included in their evaluation might not be a good test of the effectiveness of community mobilization as a whole because they had not always encouraged the sort of socially transformative processes that community mobilization ideally seeks (209).

Community engagement and other community-based programmes can be challenging to deliver effectively in the absence of community cohesion. An evaluation of an intensive HIV prevention programme in a mining community in South Africa found that groups such as sex workers—assumed to be communities of individuals with common interests—were in fact highly diverse, with different and sometimes conflicting interests. Powerful groups who were unwilling to compromise their own interests often dominated stakeholder meetings (228).

Community mobilization and community-based prevention programmes working with volunteers are forms of task shifting in which community members take on activities that might otherwise be the work of health-care professionals. Attention needs to be given to the training, support, adequate funding and organizational stability that such personnel and programmes require to be sustainable. Furthermore, few published studies discuss issues that are likely to affect successful implementation, such as methods of recruiting volunteers (e.g., self-selected, nominated by community structures or nominated by programme staff), details of training and supervision, and whether financial compensation is offered (189).

### **Cash transfers: operational considerations**

Cash transfers to economically disadvantaged households may have an effect on education, health, child marriage, teenage pregnancy and other outcomes. Rather than developing single sector projects, there is a potential for HIV programmes to partner with agencies that are working towards other developmental objectives. Co-financing across sectors would be more sustainable, and HIV prevention and other health components could be integrated into existing cash transfer schemes and government programmes. In countries where social welfare systems are in the process of being developed, a golden opportunity exists to create systems that address HIV concerns (229).

So far, most successful cash transfer programmes with demonstrable health outcomes have been implemented in middle-income countries with relatively well-functioning health systems. This has primarily been in Latin America and the Caribbean, but it has increasingly also happened in the Asia–Pacific region and sub-Saharan Africa. Even in low-income settings, cash transfers are being designed and implemented, showing that it is possible for such programmes to be delivered successfully in resource-limited settings (230).

Conditional cash transfer programmes are more complex to administer, but in some settings, programmes without conditions could equally be effective for certain outcomes (215). It also is important to select the right value for cash payments: if the reward is too small, it may not provide enough motivation, while larger payments may prevent resource-limited countries from making cash transfers available to a sufficiently large number of recipients (214). The right amount is specific to the setting and those receiving the intervention, but it is generally felt that to attain human development outcomes, transfers should meet at least 20% of the total consumption of a focus population.

For some behavioural incentives, initial findings suggest that smaller payments that are made more frequently soon after the desired behaviour are more effective than the promise of



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larger payments in the future (214). At present, it is unclear whether effective behaviour change to reduce the risk of HIV infection—if it can be replicated in subsequent studies—will persist after payments are stopped, or if it is dependent on continued financial support. The answer to this will have significant implications for the long-term sustainability of cash transfer programmes.

Cash transfers also may have potential in contexts other than those described above. For instance, they are frequently used when working with people who use drugs (231). Financial incentives for taking an HIV test, or for receiving its results, also have proven effective in developed settings (232), suggesting that they might have a role to play in encouraging adherence to antiretroviral therapy or PrEP, or at least in encouraging the initial HIV testing and engagement with care that are the necessary first steps for those interventions.

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## Population considerations

### Community mobilization and empowerment among sex workers

A cluster randomized trial in Zimbabwe examined the impact of a programme of peer education for female commercial sex workers and their male clients who were reached through beer halls and other venues frequented by men. More than 63 000 meetings took place in communities with a population greater than 18 000, and seven million condoms were distributed over three years. This was implemented in combination with an improvement in local STI clinic services (233).

Among women in the intervention communities, knowledge of HIV and AIDS did not improve, levels of unprotected sex actually worsened and HIV incidence did not change. Knowledge of HIV and AIDS improved among men, but neither behaviour nor HIV incidence changed at the community level, although changes had been recorded among men who reported attending programme meetings (233). The authors suggested a number of issues that may have impacted the intervention effects:

- Other HIV prevention interventions being simultaneously implemented at some sites, including control sites.
- Some peer educators reportedly engaging in unprotected commercial sex and therefore damaging the reputation of the programme.
- Long-term changes occurring in the Zimbabwean epidemic at the time, including risk reduction across intervention and control sites.

A wide-ranging programme of community mobilization and educational activities in the Thai army was shown in a randomized trial to lead to an 85% reduction in STI incidence and a 50% reduction in HIV incidence over two years (234).

Implemented in six Indian states with high HIV burden, Avahan was one of the largest HIV prevention programmes ever implemented. It intended to slow the transmission of HIV in the general population by raising the coverage of prevention interventions in certain key populations: female sex workers and their clients, gay men and other men who have sex with men, people who inject drugs and truck drivers (235).

Avahan combined numerous approaches:

- Behavioural interventions (peer-led outreach and behaviour change communication).
- Commodity distribution (condom distribution and needle–syringe exchange).
- Clinical interventions (high-quality STI services for key populations).
- Structural interventions (community participation and mobilization, including to address structural issues through legal empowerment training).

In all activities, there was a strong emphasis on efficient delivery and scale-up of a defined package of interventions in order to achieve saturation coverage (235).

Because of the challenge of demonstrating the efficacy of prevention programmes through experimental designs—and the priority given to rapid scale-up of initiatives in real-world

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conditions—Avahan was implemented without control communities (234). As a result, definitive statements about its impact cannot be made. However, analysis of repeated cross-sectional surveys, combined with modelling, do suggest an impact of the programme over time. Female sex workers with greater exposure to interventions were more likely to use condoms consistently with their clients (236). HIV prevalence declined in female sex workers in some areas, with modelling suggesting that the change was associated with their changes in condom use (237). Rates of syphilis fell among the male clients of female sex workers (238). The programme also appeared to have an impact in the general population: districts where more programme activities took place experienced greater reductions in HIV prevalence among pregnant women than other districts (239).

### **Other communities**

Behavioural surveys with transgender people and gay men and other men who have sex with men also found that individuals with greater exposure to interventions reported more condom use. No effect was detected in the proportion of people testing positive for HIV antibodies, but decreases in STIs were noted among both high-risk transgender people and gay men and other men who have sex with men who engaged in high-risk behaviour (240, 241). In addition, a wide range of monitoring and evaluation activities have demonstrated very high levels of programme coverage, well-delivered interventions and tailoring of services.

However, a review of the impact of community mobilization as part of HIV prevention in low- and middle-income countries reported mixed results (209). Among sex workers and gay men and other men who have sex with men, programmes that included community mobilization generally had a positive impact, mostly in terms of risk behaviour and social outcomes (e.g., social support, cohesion or participation), with less evidence for biological outcomes. In programmes for young people or the general community, it is less clear that interventions are effective.

The authors suggest that the approach is most likely to be successful with groups who have a meaningful collective identity, sometimes enhanced through a common experience of discrimination. Engagement with a process of collective action may be fuelled by a need to improve living conditions and challenge social attitudes towards the group, rather than being purely motivated by HIV-related goals. Similarly, while “young people” across the population may be an epidemiologically relevant category, they may not form a group that is sufficiently cohesive for mobilization. The authors of the review also found that community mobilization programmes tended to be more effective when they were accompanied by efforts to achieve change at the structural level, such as sex worker programmes that work towards legal change or a safer working environment (209).

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## **Conclusion: community-wide interventions**

As with the other types of interventions included in this compendium, community-wide interventions by themselves may be inadequate to achieve the types of social and behavioural changes widely accepted as being necessary for ending the HIV epidemic. They are effective in some settings and applications, however, and can be an important element in the combination approach that is needed for achieving local, national and global targets.

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