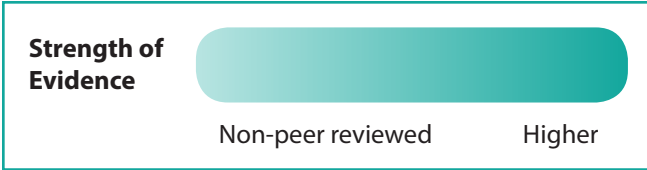


















# Impact of Health Communication on HIV Testing and Counseling

Community Engagement		
Multi-country	This review examined 150 prevention intervention studies to assess impact using the goals impact matrix. There were three aspects to the matrix: interventions, risk groups (high, medium and low) and key sexual behaviors (consistent condom use, STI treatment-seeking, number of sexual partners and age at first sex). Condom use social marketing found a reduction in non-use of condoms for all three risk populations ( -20.6%; -18.5%; -7.5%), as did peer education (-17%; -37.5%; -30.2%).VCT had a large effect among high-, medium- and low-risk populations in reduction of non-use of condoms (-44.2%; -23.4%; -16.1%). Community mobilization reduced non-use of condoms by -10.0% in medium-risk and -2.5% in low-risk. School-based programs had a -15.7% reduction in condom non-use among medium-risk groups. Mass media has a small impact on reduction of non-use of condoms among medium- and low-risk groups (-11.6%; -17%). <sup>3</sup>	
Multi-country	Use of a combination prevention strategy among Central American MSM that included BCC interventions conducted online or by outreach teams successfully resulted in HIV prevention. Men exposed to both behavioral and biomedical components were more likely to use condoms and water-based lubricant at last sex (OR 3.05, 95% CI 1.08-8.74). Men exposed to behavioral interventions were more likely to have been tested for HIV in the past year (OR 1.76, 95% CI 1.01-3.10). <sup>10</sup>	
Malawi	The BRIDGE II Project in Malawi addressed barriers to individual action and confronted societal norms related to sexual risk behavior and HIV through community-based activities and mass media messages. An evaluation of the program through the midline survey found that program exposure was a significant predictor of both HIV testing in the past year (OR = 1.40, p<0.001) and condom use at last sex (OR = 1.26, p<0.05). <sup>14</sup>	
Kenya	In Kenya, community members were trained as CHWs to provide home-based care to HIV/AIDS clients in rural areas. An assessment of this intervention found an improved quality of life, dignity and sense of belonging among PLHIV, as well as reduced stigma and an increase in testing. <sup>13</sup>	
Zambia	The Health Communication Partnership Zambia sought to strengthen community-based systems as part of a larger effort to encourage positive health behaviors. The project evaluation found that the intervention was able to build community capacity, which was associated with community action to improve behaviors. Respondents from communities with high levels, rather than low levels, of community action were twice as likely to have undergone HTC and know the results (OR = 2.00, p< 0.001). <sup>21</sup>	
Thailand	The Sisters program, which included DiCs, testing, peer-led IPC and home visits by peer educators, and aimed to reduce HIV infections and evaluated four outcomes among transgender women who were exposed to: 1) condom use at last sex, 2) consistent condom use in the past three months, 3) consistent condom and water-based lubricant use in the past three months and 4) receipt of an HIV test in the past six months. Participation in outreach was associated with consistent condom/water-based lubricant use with commercial partners (AOR 3.22, 95% CI 1.64–6.31). Attendance at the Sisters DiC was associated with receiving an HIV test (AOR 2.58, 95% CI 1.47–4.52). Participation in any Sisters services was associated with an increased likelihood of condom use at last sex (OR 3.75, 95% CI 1.41-9.97). <sup>17</sup>	



China	In two Chinese provinces with high HIV transmission among PWID, a comprehensive harm reduction intervention was implemented through community-based DiCs that offered condoms, ART and methadone maintenance referrals, needle exchange and peer-led outreach to reduce HIV risk among PWID. Evaluation in four cities (Kunming, Gejiu, Nanning and Luzhai) found significant relationships between participating in both peer-led DiC activities and outreach and having a new needles on hand (OR 1.53, p<0.05) and consistent condom use (OR 3.31, p<0.001). It also found a significant relationship between DiC activity exposure and outreach and HIV testing in Kunming (OR 2.92, p<0.01) and exposure to peer-led outreach and HIV testing through referrals in Gjiu, Nanning and Luzhai (OR 3.63, p<0.05). <sup>22</sup>	
Tanzania	The Young Citizens program was implemented in primary schools and public spaces over 28 weeks and had weekly sessions led by young adults that taught citizenship, building trust, communication, rights, HIV and the immune system, and stigma. An RCT was conducted to evaluate the program, and in intervention neighborhoods, adolescents increased their deliberative and communicative efficacy. The participatory curriculum enabled young adolescents to acquire the knowledge and communication and critical thinking skills needed to engage in informed public deliberations around HIV/AIDS in their neighborhoods. Communities organized community-level HTC health fairs in conjunction with district health officials. Of the adults tested, 75% responded that their participation was prompted by the Young Citizens community mobilization. <sup>4</sup>	
South Africa	The B4L campaign, which targets men and encourages them to lead healthier, more positive lives through mass media and community activities, had a direct positive impact on HIV testing. Among those with the highest level of exposure to the campaign, significantly more participants reported testing for HIV in the last 12 months compared to those not exposed. <sup>5</sup>	
<b>Interpersonal Communication</b>		
Multi-country	An evaluation of HIV-related communication in Tanzania, Zimbabwe, South Africa and Thailand found that frequent communication about HIV increased the likelihood that an individual had been tested. Frequent conversations about HIV were significantly associated with prior HIV testing at every site. ORs for each site ranged from 1.885 to 3.085, indicating a roughly doubled or tripled chance of past HTC uptake. <sup>12</sup>	
Malawi	Exposure to the SBCC project Malawi BRIDGE, which promoted HTC, condom use and remaining faithful to one's partner, was associated with HIV testing ( $\beta=0.08$ p<.001). The effect of this exposure was increased by interpersonal discussion. IPC also increased the effect of community norms on condom use. Malawi BRIDGE used national and local radio, billboards, brochures, religious leaders, village chiefs, community mobilizers and community groups in order to convey messages. <sup>19</sup>	
Burkina Faso	Women in Burkina Faso were eight times (OR 8.36) more likely to agree to undergo testing after discussing it with their partner; partner communication also was associated with retention in care at every level. <sup>20</sup>	
Kenya	Women in Kenya who were encouraged to return with their partners after enrollment in an antenatal clinic and underwent couples counseling were more likely to engage in PMTCT care for nevirapine (P = 0.02) and to report receiving nevirapine at delivery (P = 0.009). HIV-positive women receiving couples counseling were also five times more likely to avoid breast-feeding (P = 0.03) for HIV prevention purposes, compared with those counseled individually, and had a four-fold greater likelihood of using condoms (P = 0.004). <sup>9</sup>	
Cote d'Ivoire	HTC is not only an entry point into PMTCT services for women, but also influences couples' communication about STIs, which in turn positively influences testing by male partners, as well as condom use. Prenatal HIV counseling and testing appears to be an efficient tool to sensitize women and their partners to safer sexual practices. Following prenatal counseling and testing, an increase of 26% of HIV positive women used condoms (P<0.01). The increase for HIV negative women was also significant (P<0.01). <sup>8</sup>	
<b>mHealth</b>		
Uganda	An mHealth intervention to address HIV prevention education in Uganda was implemented including the promotion of testing and counseling. It sent seven question messages around HIV and family planning knowledge. When someone would respond, the program would automatically reply and let them know if their answer was correct or not and send on additional information. A significant increase in HIV testing was observed when HTC was provided through the program. <sup>2</sup>	

Mass Media		
Kenya	In Kenya, the government implemented a national mass media campaign to promote testing services, utilizing recognizable campaign branding, billboards and print materials, and television and radio advertisements featuring celebrity spokespersons. Between 2000 and 2005, the campaign increased testing by 28.5% during the first phase and 42.5% ( $p<0.05$ ) in the fourth phase of the campaign. <sup>16</sup>	
Botswana	Women who listened to the Makgabaneng radio drama promoting PMTCT enrollment and HIV testing among pregnant women in Botswana were more likely to identify a character with a PMTCT storyline as their favorite ( $p<0.01$ ), and those who listed a PMTCT character as their favorite were significantly more likely to have tested for HIV (79%) than those who did not (67%) ( $p=0.03$ ). Even after controlling for other factors, these women were 1.77 times more likely to test for HIV during pregnancy (95% CI). <sup>15</sup>	
South Africa	HIV mass communication in South Africa (exposed to 4-8; 9+) is associated with greater HIV knowledge (AOR 1.50; 1.99 $p<0.001$ ), using a condom at last sex (AOR 1.30; 1.28 $p<0.05$ ), having had an HIV test in the past year (NS; 1.45 $p<0.001$ ), as well as lower stigma toward those living with HIV (AOR 0.71; 0.41 $p<0.001$ ). <sup>18</sup>	
Uganda	Men and women exposed to HIV communication were significantly more likely to intend to test for HIV as a couple in the next 12 months than those not exposed ( $p<0.001$ ). Intent to test for HIV as an individual was 84% higher among exposed respondents than unexposed. Exposed males were two times more likely while exposed females were 73% more likely to have HIV testing intentions compared to their unexposed counterparts. In addition, couple HIV testing intentions in men were 37% higher among exposed respondents than unexposed respondents. <sup>1</sup>	
South Africa	<i>4Play</i> was a TV drama in South Africa that utilized the social learning theory and notion of modeling to encourage partner communication around HIV prevention and testing. <i>4Play</i> had an indirect effect on women on condom use at last sex through increased self-efficacy for condom use, and on HIV testing behavior in men and women through increased discussion about HIV testing with their sex partners. <sup>6</sup>	
Uganda	Fifty-one percent of those surveyed in the target population (18-49) had seen or heard about the <i>Go Together, Know Together</i> campaign which promoted couples counseling and disclosure. Radio was the most common way people heard campaign messages; health workers and posters were the next two most common. Of those who heard campaign messages, 53% reported being influenced to take action; of that 53%, 25% talked to their partner about going for counseling, 19% went for HTC on their own and 19% talked to their partner about their status. Fourteen percent went for couples HTC and 16% encouraged someone else to go for couples HTC. Eighty-six percent of those exposed felt very confident that they could get tested for HIV, compared to 74% of those unexposed. Those exposed to the campaign were more likely to report knowing their partner's status (53%) compared to those who were not exposed (43%). <sup>11</sup>	
South Africa	<i>Intersexions</i> was a South African TV drama that addressed the the spread of HIV through multiple concurrent relationships. The most common form of qualitative, self-reported behavior change as a result of <i>Intersexions</i> was taking an HIV test, followed by consistent condom use. The analysis of <i>Intersexions</i> data suggests that the drama contributed to an increase in HIV testing by exerting a positive influence on perceived norms and social dialogue on HIV testing. <sup>7</sup>	

## Acronyms

AHR	Adjusted hazard ratio	MSG	Mother support groups
AOR	Adjusted odds ratio	MSM	Men who have sex with men
ANC	Antenatal care	MSPs	Multiple sex partners
ART	Antiretroviral therapy	OR	Odds ratio
ARV	Antiretroviral	PA	Patient advocate
B4L	Brothers 4 Life	PHW	Peer health worker
BCC	Behavior change communication	PLHIV	People living with HIV
CBART	Community-based antiretroviral therapy	PMTCT	Prevention of mother-to-child transmission
CHW	Community health worker	PSA	Public service announcement
DiC	Drop-in center	PWID	People who inject drugs
EE	Entertainment education	RCT	Randomized control trial
FSW	Female sex worker	SBCC	Social and behavior change communication
HTC	HIV testing and counseling	SMS	Short message service
IPC	Interpersonal communication	STI	Sexually transmitted infection
Mtf	Male-to-female	VCT	Voluntary counseling and testing
MMC	Medical male circumcision	VMMC	Voluntary medical male circumcision

---

## Citations

<sup>1</sup>AFFORD (2012). Uganda Joint Behaviour Change Communication Survey. Uganda: USAID.

<sup>2</sup>Apunyu, B., & Hoefman, B. (2010) Using SMS for HIV/AIDS Education and to Expand the Use of HIV Testing and Counselling Services at the AIDS Information Centre (AIC) Uganda. M4D 2010, 40.

<sup>3</sup>Bollinger, L. A. (2008). How Can We Calculate the "E" in "CEA?". AIDS, 22, S51-S57.

<sup>4</sup>Carlson, M., Brennan, R. T., & Earls, F. (2012). Enhancing Adolescent Self-Efficacy and Collective Efficacy through Public Engagement Around HIV/AIDS Competence: A Multilevel, Cluster Randomized-Controlled Trial. Social Science & Medicine, 75(6), 1078-108.

<sup>5</sup>Collinge, J (2013). Talking Man-to-Man: The Story of Brothers for Life. South Africa: JHHESA.

<sup>6</sup>Collinge, J, Figueria, ME, Kincaid, DL, Pearce, B, Mahlasela, L. Reflections on Femininity, Love and HIV The Story of 4Play: Sex Tips for Girls. South Africa: USAID.

<sup>7</sup>Collinge, JA, Mahlasela, L, Delate, R, Figueroa, ME, Kincaid, DL (2014). Exploring the Web of Desire: The Story of *Intersexions*. South Africa: JHHESA.

<sup>8</sup>Desgrées-Du-Loù, A., Brou, H., Djohan, G., Becquet, R., Ekouevi, D. K., Zanou, B., ... & Leroy, V. (2009). Beneficial Effects of Offering Prenatal HIV Counselling and Testing on Developing a HIV Preventive Attitude Among Couples. Abidjan, 2002–2005. AIDS and Behavior, 13(2), 348-355.

<sup>9</sup>Farquhar, C., Kiarie, J. N., Richardson, B. A., Kabura, M. N., John, F. N., Nduati, R. W., ... & John-Stewart, G. C. (2004). Antenatal Couple Counseling Increases Uptake of Interventions to Prevent HIV-1 Transmission. Journal of Acquired Immune Deficiency Syndromes (1999), 37(5), 1620.

<sup>10</sup>Firestone, R., Rivas, J., Lungo, S., Cabrera, A., Ruether, S., Wheeler, J., & Vu, L. (2014). Effectiveness of a Combination Prevention Strategy for HIV Risk Reduction with Men who Have Sex with Men in Central America: A Mid-term Evaluation. BMC Public Health, 14(1), 1244.

<sup>11</sup>Health Communication Partnership. (2011). The December 2010 Health Communication Partnership (HCP) and the Young Empowered and Healthy (Y.E.A.H.) Midterm Evaluation Survey Report.

<sup>12</sup>Hendriksen, E. S., Hlubinka, D., Chariyalertsak, S., Chingono, A., Gray, G., Mbwambo, J., ... & Coates, T. J. (2009). Keep Talking About It: HIV/AIDS-Related Communication and Prior HIV Testing in Tanzania, Zimbabwe, South Africa and Thailand. AIDS and Behavior, 13(6), 1213-1221.

<sup>13</sup>Johnson, B. A., & Khanna, S. K. (2004). Community Health Workers and Home-Based Care Programs for HIV Clients. Journal of the National Medical Association, 96(4), 496.

<sup>14</sup>Kaufman, M. R., Rimal, R. N., Carrasco, M., Fajobi, O., Soko, A., Limaye, R., & Mkandawire, G. (2014). Using Social and Behavior Change Communication to Increase HIV Testing and Condom Use: The Malawi BRIDGE Project. AIDS Care, (ahead-of-print), 1-4.

<sup>15</sup>Kuhlmann, A. K. S., Kraft, J. M., Galavotti, C., Creek, T. L., Mooki, M., & Ntuny, R. (2008). Radio Role Models for the Prevention of Mother-to-Child Transmission of HIV and HIV Testing among Pregnant Women in Botswana. Health Promotion International, 23(3), 260-268.

<sup>16</sup>Marum, E., Morgan, G., Hightower, A., Ngare, C., & Taegtmeier, M. (2008). Using Mass Media Campaigns to Promote Voluntary Counseling and HIV-Testing Services in Kenya. *AIDS*, 22(15), 2019-2024.

<sup>17</sup>Pawa, D., Firestone, R., Ratchasi, S., Dowling, O., Jittakoat, Y., Duke, A., & Mundy, G. (2013). Reducing HIV Risk among Transgender Women in Thailand: A Quasi-Experimental Evaluation of the Sisters Program. *PLoS One*, 8(10), e77113.

<sup>18</sup>Peltzer, K., Parker, W., Mabaso, M., Makonko, E., Zuma, K., & Ramlagan, S. (2012). Impact of National HIV and AIDS Communication Campaigns in South Africa to Reduce HIV Risk Behaviour. *The Scientific World Journal*, 2012.

<sup>19</sup>Rimal, R. N., Limaye, R. J., Roberts, P., Brown, J., & Mkandawire, G. (2013). The Role of Interpersonal Communication in Reducing Structural Disparities and Psychosocial Deficiencies: Experience from the Malawi BRIDGE Project. *Journal of Communication*, 63(1), 51-71.

<sup>20</sup>Sarker, M., Sanou, A., Snow, R., Ganame, J. and Gondos, A. (2007), Determinants of HIV Counselling and Testing Participation in a Prevention of Mother-to-Child Transmission Programme in Rural Burkina Faso. *Tropical Medicine & International Health*, 12: 1475–1483.

<sup>21</sup>Underwood, C., Boulay, M., Snetro-Plewman, G., Macwan'gi, M., Vijayaraghavan, J., Namfukwe, M., & Marsh, D. (2012). Community Capacity as Means to Improved Health Practices and an End in Itself: Evidence from a Multi-Stage Study. *International Quarterly of Community Health Education*, 33(2), 105-127.

<sup>22</sup>Wang, K., Fu, H., Longfield, K., Modi, S., Mundy, G., & Firestone, R. (2014). Do Community-Based Strategies Reduce HIV Risk among People Who Inject drugs in China? A Quasi-Experimental Study in Yunnan and Guangxi Provinces. *Harm Reduction Journal*, 11(1), 15.