



# OPERATIONALISING STRUCTURAL INTERVENTIONS FOR HIV PREVENTION

## LESSONS FROM ZAMBIA

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## **STRIVE**

STRIVE is a research consortium based at the London School of Hygiene and Tropical Medicine, with partners in India, Tanzania, South Africa and elsewhere, focusing on the structural forces – in particular stigma, gender-based violence, limited livelihood options and drinking norms – that combine in different ways to create vulnerability to HIV transmission and to undermine prevention. STRIVE is funded by UKaid from the Department for International Development. However, the views expressed do not necessarily reflect the department's official policies.

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## **Abstract**

Structural interventions are key components of a combination approach to HIV prevention. While global guidance for HIV prevention recognises this key role, evidence for the effectiveness of structural interventions, and their implementation, are lagging behind other areas of prevention. Over the past several years, 'structural prevention' has received significant academic and intellectual attention. However, the challenges to implementation at the community and national levels are less well understood. This paper examines the U.S. President's Emergency Plan for AIDS Relief (PEPFAR)/U.S. Agency for International Development (USAID) experience with implementing structural interventions in Zambia. We propose several ways forward to speed the implementation process for structural interventions.

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## INTRODUCTION

In recent years, as combination prevention approaches have become the mainstay of HIV prevention responses globally, significant gaps in implementing structural interventions have been recognised [1, 2]. The discussion around structural HIV prevention has been largely informed by academic literature, but, increasingly, programmatic data are available [3-5]. Consensus on the specific definitions of structural barriers, factors, and interventions is lacking, which often causes confusion in identifying specific and appropriate interventions at the programme level, though other authors in this series attempt to address this gap [6]. Parkhurst defines structural interventions as activities that address structural drivers (both risk drivers and environmental mediators) in a given setting [6]. Despite challenges, HIV prevention programmers have successfully utilised existing knowledge to implement context-specific structural interventions, recognising that removing or alleviating structural barriers is likely to have long-term impact not only on HIV incidence, but also on broader development goals.

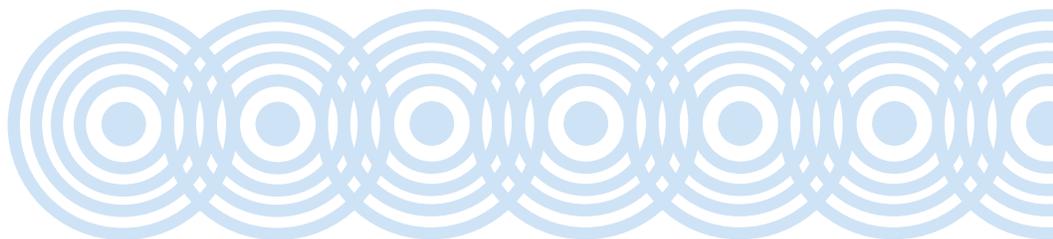
In the present paper, the authors describe the experience of programming structural interventions in Zambia, beginning with a brief description of the HIV and AIDS situation and responses in the country, followed by an overview of structural interventions being implemented. We conclude with several overarching and cross-cutting challenges and opportunities in implementing structural interventions, alongside recommendations for a way forward for other countries.

## STRUCTURAL FACTORS CONTRIBUTING TO HIV TRANSMISSION IN ZAMBIA

HIV and AIDS impose a large burden on the health system in Zambia, and remain a significant threat to the country's development [7]. While significant decreases have been recorded among some populations in Zambia, HIV incidence and prevalence have stabilised at very high levels (estimated 1.6 percent incidence; prevalence: 14.3 percent) [8-10].

Six key drivers of the HIV epidemic in Zambia have been identified in the National AIDS Strategic Framework (NASF) 2011–15: 1) high rates of multiple concurrent partnerships, 2) low and inconsistent condom use, 3) low rates of medical male circumcision, 4) mobility and labour migration, 5) vulnerable groups with high-risk behaviours, and 6) mother-to-child transmission [11]. Importantly, the NASF recognises the role of structural factors, stating that “HIV is further compounded by other structural factors that are underpinned by social and cultural norms, and limitations in service delivery. Among them are stigma and discrimination, gender inequalities, low levels of education, rural-urban dichotomy in accessing services, and inadequate focus on key populations, vulnerable groups including women and girls, and people with disabilities” [11].

A 2009 Modes of Transmission (MOT) Analysis highlights several structural risk drivers and environmental mediators thought to impact HIV transmission—including



marriage patterns and polygyny, social and cultural norms, and sexual and physical violence and alcohol use, among others [9]. Age-disparate or intergenerational partnerships and transactional partnerships have often been cited in southern Africa and in Zambia as important contributing factors to high HIV incidence, particularly among young women [10, 12-15].

Inequality in gender roles and gender-based violence (GBV) are structural risk drivers and environmental mediators resulting in increased vulnerability, particularly for young girls and women in Zambia [10, 12]. In 2009, approximately 26 percent of urban women and 20 percent of rural women reported ever being forced to have sex against their will [12]. While few data from Zambia establish a causal link between violence and HIV infection, evidence from the southern Africa region suggests that violence may increase women's susceptibility to HIV infection [16-19]. According to the MOT Analysis, "Local data show that there is a certain level of tolerance or acceptance towards gender-based discrimination and inequality...and that school education and women's cash income reduces gender-discriminatory attitudes" [9].

Other key structural drivers include alcohol use and abuse, which are associated with increased sexual risk taking, including lower condom use and multiple partnerships [20-24]. As in other countries of southern Africa, migration and mobility impact numerous aspects of the HIV response, from accessibility of services to changes in community 'fabric' and social networks. A significant portion of the formal and informal Zambian economy relies on migrant labour on agricultural estates, in mining communities, and along transit corridors (e.g. truck drivers and cross-border traders), which has led to the formation of sexual networks that facilitate HIV transmission [9]. Cultural practices such as 'sexual cleansing'\* or widow inheritance, dry sex, traditional circumcision, and traditional treatment of infertility are also thought to contribute to HIV transmission, though few data exist to conclusively implicate their roles [25-27].

## IMPLEMENTING STRUCTURAL INTERVENTIONS

With broad recognition of the importance of structural factors in facilitating or hampering an effective HIV and AIDS response, and despite challenges in establishing the effectiveness of structural interventions on reducing HIV incidence directly or indirectly, PEPFAR/USAID is using several such approaches in Zambia. The following are selected examples of structural interventions for addressing structural factors in Zambia, utilising the broad categories of domains identified by Pronyz and Lutz (i.e. economic well-being, education, gender, mobility/migration, social capital, and stigma/discrimination) [28].

\* A ritual involving a woman who has sex with a member of her deceased husband's family to purge the spirit of her deceased husband.

## BUILDING SOCIAL CAPITAL WITH TRADITIONAL LEADERS

The Support to the HIV/AIDS Response in Zambia (SHARe and SHARe II) Program, funded by PEPFAR through USAID, works with traditional leaders to mobilise and equip them with the necessary skills to be effective change agents and to lead their communities in identifying problems and developing solutions [29]. The project is premised on an impact pathway that assumes that sustained changes to cultural norms to reduce sexual risk will be attainable, in part, by involving traditional leaders. The project aims to identify and address community-owned priorities; therefore, specific objectives vary by community. For instance, in several communities, local chiefs have led efforts to ban childhood marriages in a bid to protect vulnerable young girls and address issues of intergenerational partnerships. Other local chiefs have begun to include discussions about HIV in traditional ceremonial gatherings, utilising long-established methods of communication.

### IMPLEMENTATION SUCCESSES AND CHALLENGES

Several factors enhanced the effectiveness of the traditional leaders programme, including ensuring the leaders' commitment and ability to understand the programme; collaboration with other programmes that were able to provide services identified as needed by the community and traditional leaders; and support and buy-in from political and other leaders able to mobilise resources and provide links to other sectors not easily accessible to the traditional leaders. Several factors have limited the success of the programme in some communities, including relying on external donor support for service provision; having limited scale and reach because of the small populations within certain chiefdoms; and the lack of a similar traditional leadership structure to effectively implement the programme in urban settings, where the population is larger and HIV prevalence higher.

## BUILDING SOCIAL CAPITAL USING COMMUNITY INCENTIVES

In recent years, several interventions in sub-Saharan Africa have examined the impact of conditional cash transfers on changing school-attending and sexual risk behaviours, particularly among young women [30-32]. Building broadly on the promising outcomes and impact of these programmes and other incentive-based interventions and recognising the important role of social capital and community-led responses to address HIV and AIDS, PEPFAR has begun funding an intervention through USAID called the Community Mobilization for Preventive Action (COMPACT) project. The intervention, which is led by the Population Council, aims to reduce HIV incidence in four communities in Zambia using a community-driven process of social norms change [33]. A system of incentives has been designed to reward communities for reaching agreed-upon benchmarks, to act as reinforcement for healthy behaviours of community members related to HIV prevention, and to make the "reward" of risk reduction more immediate. After undergoing a process to identify local risk behaviours and social norms, the selected communities identified benchmarks to which they would be held accountable, including targets related to GBV, alcohol, and safe spaces for adolescents.

### IMPLEMENTATION SUCCESSES AND CHALLENGES

Although the intervention is fairly new, initial data suggest that participation is high, given the potential for community reward. However, it is likely that the impact on HIV incidence may be too diffuse to measure over a short period of time. Although the communities have set and achieved numerous benchmarks, complex pathways between intervention and outcomes pose a measurement challenge, which exists for other structural interventions as well. Additional challenges have been experienced, including determining how to provide incentives and to

whom (e.g., at what point is the incentive delivered to the community? Which community organisations or structures should receive the incentive?) Without a clear idea of how the system of incentives will function and commitment for their long-term provision, there is a risk of losing community involvement in and adherence to the interventions.

## FOSTERING ECONOMIC WELL-BEING

Economic inequality and lack of access to sustainable livelihoods are contributing factors to sexual risk and poor health-seeking behaviours, particularly among young women [34-36]. The FHI 360-led Corridors of Hope III programme works with vulnerable populations along major transit corridors. In several communities, participants have formed Group Savings and Loan Associations among sex workers, young people, and other vulnerable low-income women [37]. The intervention provides income-generating alternatives to risky commercial interactions and increases self-sufficiency. A number of groups have increased their savings and members have been able to access loans to start small businesses and meet immediate household needs.

## IMPLEMENTATION SUCCESSES AND CHALLENGES

Because of the economic challenges faced by many in the intervention community, uptake of the intervention has been high. This has created an opportunity to link the economic intervention with other HIV and AIDS-related interventions. The intervention has provided members with financial literacy and the ability to better manage resources and save money. Such interventions can also buffer individuals from economic shocks as well as allow individuals to better manage resources and reduce economically induced sexual risk behaviours. Project

experience indicates that self-selected savings groups in which women are highly represented in management have tended to perform better (e.g. higher savings, timely repayment of micro-loans) than those without women in leadership roles.

Despite the success at the micro-level, the intervention has had only a small impact on the larger macroeconomic situation of many rural or peri-urban communities, which would require other economic development interventions. Additionally, unintended outcomes created by increased economic self-sufficiency need to be considered. For instance, anecdotal data suggest that some women who set up businesses may put themselves at increased HIV risk because of an increased number of customers and potential for new transactional partners. Context-specific approaches to minimise these unintended outcomes need to be considered during the programme design stage.

## ADDRESSING HARMFUL GENDER NORMS

An enabling policy and legal environment is central to promoting a rights-based approach to HIV and to providing a framework for promoting rights in a manner that reduces vulnerability to infection and can address gender norms. Several programmes in Zambia aim to improve the legal and legislative environment, including the SHARe II Program (led by John Snow, Inc.) and the A Safer Zambia (ASAZA) program (led by CARE International), both funded by PEPFAR through USAID [38]. Both support government processes to enact laws and policies, including those related to gender, that mitigate HIV vulnerability.

One result of such efforts, which addresses harmful gender norms, is the Anti-Gender-Based Violence Act, passed in 2011. In many instances, a woman's refusal of sex, negotiating condom use, or accessing HIV-related services

can lead to violence [39, 40]. By criminalising specific acts of GBV, the Act aims to deter would-be offenders and promote a safer environment, particularly for women. It is anticipated that with enforcement and over time, the act will increase women's control of several issues that affect their HIV vulnerability, including when, how, and with whom to have sex, and accessing HIV-related services without fear of violence.

When implemented, enforced, and linked with other prevention services, the policy has potential to affect HIV vulnerability, as well as broader gender norms. Already, public awareness of GBV has increased, in part evidenced by increased reporting of GBV cases in 2012, compared to previous years [41]. Anecdotal data also suggest that more assault survivors are seeking care and reporting incidents of violence to the authorities since the law was enacted.

## IMPLEMENTATION SUCCESSES AND CHALLENGES

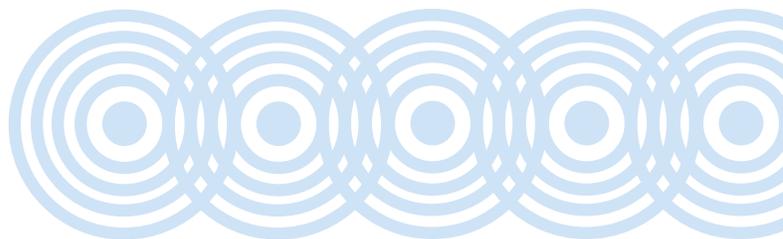
The success of policy/legislative changes greatly depends on a host of intermediary steps and factors, including authorities being willing to enforce such policies. For instance, the impact of the Anti-GBV Act can be maximised when police officials are aware of it and are willing to act in accordance with the law. Additionally, post-assault medical and legal services must be available and communities and individuals need to be aware of these services, as well as their legal rights. The Anti-GBV Act is one component of a package that more holistically addresses GBV and its associated risks; additional activities through the ASAZA program under the USAID-funded Stamping Out and Preventing Gender-Based Violence (STOP GBV) Prevention and Advocacy Program complement this legal tool. When placed in the context of such a package of interventions to address GBV, these efforts will ultimately shift a complex array of social norms related to GBV and associated HIV risks.

## OPPORTUNITIES AND CHALLENGES IN STRENGTHENING STRUCTURAL APPROACHES

### COMMUNITY PERCEPTIONS

After years of HIV interventions being implemented in communities, 'HIV fatigue' has set in among communities in Zambia, potentially reducing the motivation of individuals and communities to participate in such efforts, particularly when such interventions do not resonate with their daily or immediate needs. In addition, in many places, stigma and discrimination continue to negatively impact acceptance and uptake of HIV-related services. However, these challenges provide an important strategic opening for structural interventions that are integrated with broader and often more immediate needs that impact individuals and communities.

Communities that have been living with HIV for many years, including those in Zambia, may more readily accept and utilise structural approaches and interventions that address the daily realities of poverty, unemployment, and violence which they face. HIV prevention beneficiaries often say that they can live with HIV for many years, but hunger will kill them in a matter of days, clearly indicating the need to think about HIV prevention efforts beyond sexual behaviours, and in domains of development that HIV and AIDS interventions have not historically highlighted.



While these types of need are often expressed, structural approaches should be recognised as a response to the broader needs of a community as well as a longer-term investment in reducing HIV risk and vulnerability. And in an era of increased treatment access and uptake, where individuals are living longer with HIV and where HIV is perceived as a chronic infection, it is logical to better integrate HIV and AIDS efforts with the broader health and socioeconomic needs of the population. However, this approach will require dramatic changes in our collective approach to HIV and development so that development responses are more integrated and systems-based.

## IMPLEMENTATION AND COORDINATION

Zambia, like many countries, has adopted a multi-sectoral and decentralised response to the HIV epidemic, with the active participation of communities, civil society, private sector, government ministries, and other development partners. Government institutions, though, play the lead role in most areas of the response and are often responsible for its coordination.

Most structural interventions span multiple sectors, posing significant challenges for implementation and coordination. For example, economic strengthening activities may interface with multiple ministries such as Ministries of Agriculture, Community Development, Mother and Child Health, and Labour and Social Services. In many instances, planning and implementation for these activities may occur independently, with no one sector taking the lead to ensure that activities across the sectors complement each other and achieve the anticipated results.

In Zambia, the National HIV/AIDS/STI/TB Council (NAC) coordinates the national multi-sectoral HIV response, with structures at the national and subnational levels defined. However, the mandate to implement and mobilise resources for many structural interventions resides

outside the NAC, limiting the likelihood that such interventions will be implemented. In an environment of limited resources, most ministries focus on issues related to their primary mandate and which, frequently, do not include HIV-related structural interventions. Solutions addressing this challenge at the field level could include clear articulation of structural approaches and potential causal pathways within the national operational plans and other types of work plans, with clear identification of roles and responsibilities. This clarity would make it easier for the NAC to coordinate and support ministries to ensure that different activities are sufficiently linked with outcomes and future impact. Other solutions would be to ensure active participation in planning and buy-in by the different ministries, and more importantly, to increase NAC's ability to hold respective ministries accountable for activities and deliverables that aim to meet HIV goals as well as related ministry goals.

In addition to the macro challenges of coordination across sectors, challenges at an even more basic operational level exist. Though focal persons for HIV sometimes exist in non-health governmental sectors, they do not always have adequate training or the appropriate skill set, or they may have other primary responsibilities that limit their ability to focus on these structural interventions. A potential solution could include the recruitment and retention of dedicated staff with the necessary competencies within the different sectors.

## MONITORING AND EVALUATION

Interventions aiming to alter environmental mediators, including changing community norms and practices, are likely to result in changes that occur beyond the timeframe for most donor-funded projects and their evaluations. However, such interventions do have the potential of achieving impact with regard to HIV

prevention. Innovative research methodologies to measure and understand intermediate outcomes are necessary to build the evidence base for this type of intervention. A cycle of low priority leading to less research on structural interventions, in turn leading to a lack of evidence, will continue until the inherent benefits of structural interventions are realised and the limitations of current methodologies are overcome.

Coordinated monitoring of structural approaches and interventions is critical, given the challenges with evaluation. Though several tools and indicators have been developed to track the results of biomedical interventions for HIV, tools and indicators to track structural interventions are lacking. Development of specific tools for these interventions would allow for data collection at the implementation level and also for collating and analysing the results from multiple interventions related to a specific structural factor so that they can be meaningfully interpreted at a higher level. Investment should also be made in research to determine the interventions that produce the greatest impact. Improved monitoring along explicit and pre-identified causal pathways from interventions to HIV impact will provide additional data to understand whether interventions are likely or unlikely to change HIV incidence.

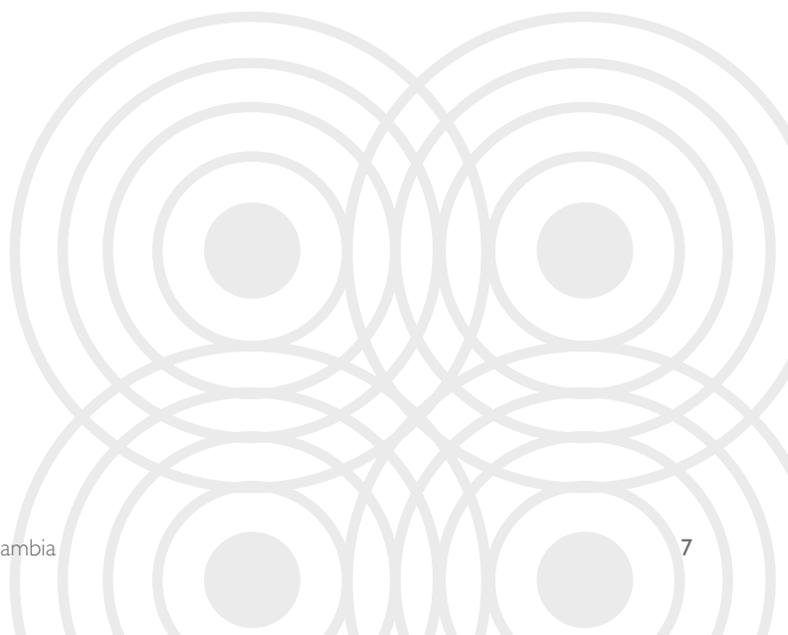
## FINANCIAL RESOURCES

Another challenge is identifying financial support for structural interventions. In an environment of dwindling resources, few donors are prepared to mobilise resources for programmes that have insufficient direct evidence supporting their efficacy. With recent advances in biomedical prevention interventions, financial support

for structural interventions has decreased. In addition to investing in research to better understand the effectiveness of structural interventions, increased financial allocation to these interventions can be supported by articulating clear activities which different stakeholders can buy into and by strengthening collaboration and coordination across sectors. A clearer articulation of the causal pathways between structural factors and HIV transmission is necessary, particularly where research methods currently do not provide sufficient tools to demonstrate the effectiveness of structural interventions in the short term.

## CONCLUSION

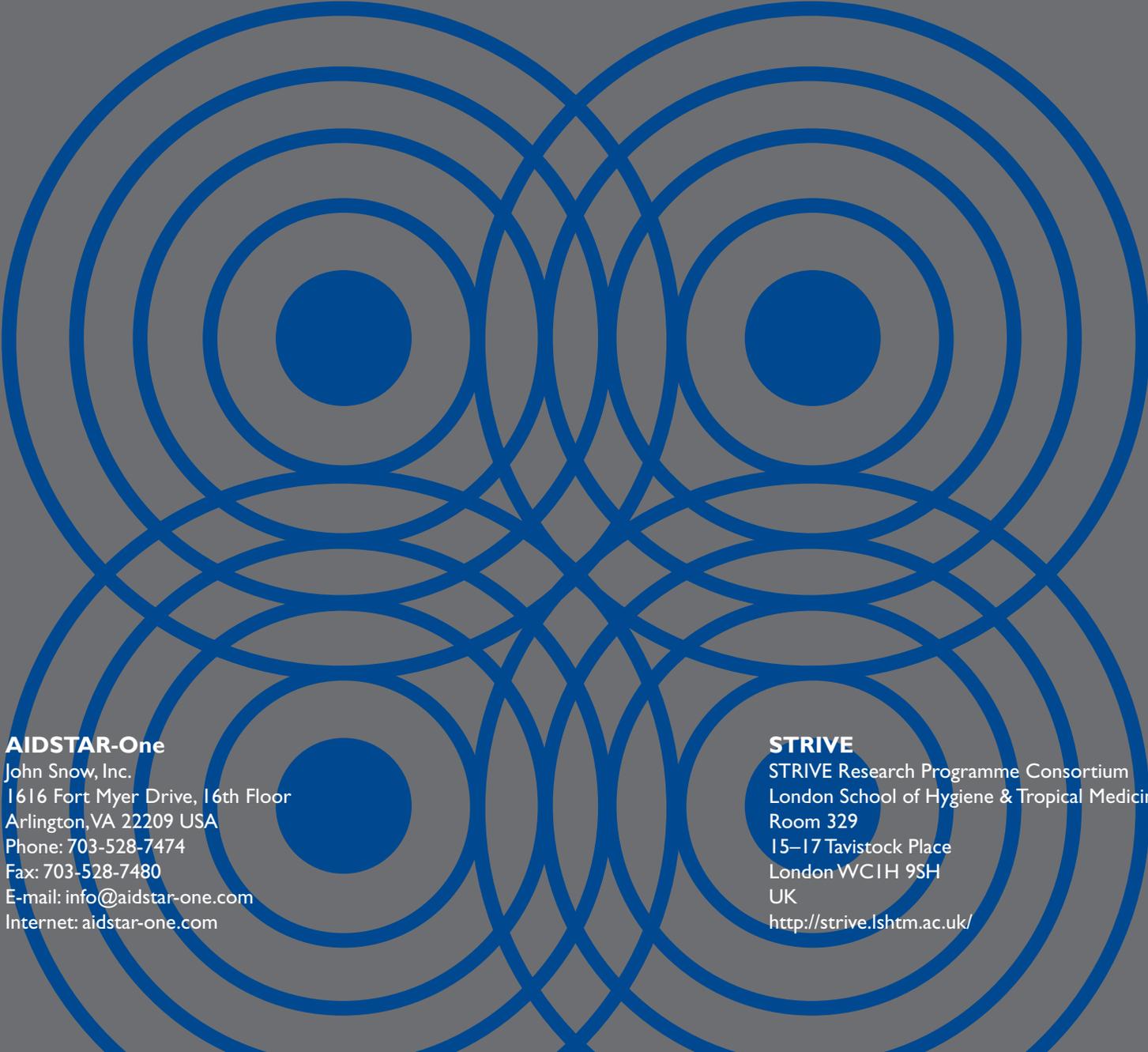
Despite challenges to implementing, monitoring, and evaluating structural interventions, they can and have been implemented successfully and are necessary for a long-term and sustained response to both HIV and social and economic development needs. Better identification of causal pathways, involvement of key stakeholders and collaborators, and enhanced monitoring will strengthen implementation of structural interventions and provide the necessary data to understand their outcomes and impacts. Such efforts and stronger links between structural interventions and other biomedical and behavioural interventions will result in a true combination approach to HIV prevention, yielding better results.



# REFERENCES

- Auerbach, J. D., J. O. Parkhurst, and C. F. Caceres. 2011. "Addressing Social Drivers of HIV/AIDS for the Long-Term Response: Conceptual and Methodological Considerations." *Global Public Health* 6(Suppl 3):S293–309.
- Gupta, G. R., J. O. Parkhurst, J. A. Ogden, et al. 2008. "Structural Approaches to HIV Prevention." *The Lancet* 372:764–75.
- Abdul-Quader, A. S., and C. Collins. 2011. "Identification of Structural Interventions for HIV/AIDS Prevention: The Concept Mapping Exercise." *Public Health Reports* 126(6):777–88.
- Blankenship, K. M., S. J. Bray, and M. H. Merson. 2000. "Structural Interventions in Public Health." *AIDS* 14(Suppl 1):S11–21.
- Parkhurst, J. O. 2012. "HIV Prevention, Structural Change and Social Values: The Need for an Explicit Normative Approach." *Journal of the International AIDS Society* 15(Suppl 1):1–10.
- Parkhurst, Justin O. 2013. *Structural Drivers, Interventions, and Approaches for Prevention of Sexually Transmitted HIV in General Populations: Definitions and an Operational Approach*. Structural Approaches to HIV Prevention Position Paper Series. Arlington, VA: USAID's AIDS Support and Technical Assistance Resources, AIDSTAR-One, Task Order 1, and London: UKaid's STRIVE research consortium.
- Republic of Zambia. 2006. *Vision 2030: A Prosperous Middle-Income Nation by 2030*. Lusaka: Republic of Zambia.
- Sandøy, I. F., G. Kvåle, C. Michelo, and K. Fylkesnes. 2006. "Antenatal Clinic-Based HIV Prevalence in Zambia: Declining Trends but Sharp Local Contrasts in Young Women." *Tropical Medicine & International Health* 11(6):917–28.
- Mulenga, O., H. Witola, C. Buyu, et al. 2009. *Zambia: HIV Prevention Response and Modes of Transmission Analysis*. Lusaka: UNAIDS, Republic of Zambia, Zambia National HIV/AIDS/STI/TB Council, and the World Bank Global HIV/AIDS Program (GHAP).
- Central Statistical Office (CSO) Zambia, Ministry of Health, Tropical Diseases Research Center, et al. 2009. *Zambia Demographic and Health Survey 2007*. Calverton, MD: CSO and Macro International Inc.
- National HIV/AIDS/STI/TB Council. 2010. *Zambia National AIDS Strategic Framework 2011–2015*. Lusaka: National HIV/AIDS/STI/TB Council.
- Central Statistical Office (CSO) Zambia, Ministry of Health, National HIV/AIDS/STI/TB Council, et al. 2010. *Zambia Sexual Behaviour Survey 2009*. Lusaka: CSO and MEASURE Evaluation.
- Leclerc-Madlala, S. 2008. "Age-Disparate and Intergenerational Sex in Southern Africa: The Dynamics of Hypervulnerability." *AIDS* 22(Suppl 4):S17–25.
- Wilson, N. 2012. "Economic Booms and Risky Sexual Behavior: Evidence from Zambian Copper Mining Cities." *Journal of Health Economics* 31(6):797–812.
- Bajaj, M. 2009. "Sugar Daddies and the Danger of Sugar: Cross-Generational Relationships, HIV, and Secondary Schooling in Zambia." In *Gender, Equality and Education from International and Comparative Perspectives* (International Perspectives on Education and Society series). D. P. Baker and A. W. Wiseman, eds. Bingley, UK: Emerald Group Publishing Limited.
- Maman, S., J. Campbell, M. D. Sweat, and A. C. Gielen. 2000. "The Intersections of HIV and Violence: Directions for Future Research and Interventions." *Social Science & Medicine* 50(4):459–78.
- Nelson, K. 2010. "Association between Domestic Violence, HIV Status and Consent to Testing among Zambian Women." Richmond: Virginia Commonwealth University, Department of Epidemiology and Community Health.
- Dunkle, K. L., R. Jewkes, M. Nduna, et al. 2007. "Transactional Sex with Casual and Main Partners among Young South African Men in the Rural Eastern Cape: Prevalence, Predictors, and Associations with Gender-Based Violence." *Social Science & Medicine* 65(6):1235–48.
- World Health Organization (WHO). 2000. *Violence against Women and HIV/AIDS: Setting the Research Agenda*. Geneva: Gender and Women's Health, WHO.
- Shuper, P. A., N. Joharchi, H. Irving, and J. Rehm. 2009. "Alcohol as a Correlate of Unprotected Sexual Behavior among People Living with HIV/AIDS: Review and Meta-Analysis." *AIDS and Behavior* 13(6):1021–36.
- Pithey, A., and C. Parry. 2009. "Descriptive Systematic Review of sub-Saharan African Studies on the Association between Alcohol Use and HIV Infection." *Journal of the Social Aspects of HIV/AIDS* 6(4):155–69.
- Fisher, J. C., H. Bang, and S. Kapiga. 2007. "The Association between HIV Infection and Alcohol Use: A Systematic Review and Meta-Analysis of African Studies." *Sexually Transmitted Diseases* 34(11):856–63.
- Mbulu, L., I. M. Newman, and D. F. Shell. 2007. "Factors Contributing to the Failure to Use Condoms among Students in Zambia." *Journal of Alcohol and Drug Education* 51(2):40–58.
- Magnani, R. J., A. M. Karim, L. A. Weiss, et al. 2002. "Reproductive Health Risk and Protective Factors among Youth in Lusaka, Zambia." *Journal of Adolescent Health* 30(1):76–86.
- Malungo, J. R. 2001. "Sexual Cleansing (Kusalazya) and Levirate Marriage (Kunjilila Mung'anda) in the Era of AIDS: Changes in Perceptions and Practices in Zambia." *Social Science & Medicine* 53(3):371–82.
- Mbozi, P. 2000. "The Impact of Negative Cultural Practices on the Spread of HIV/AIDS in Zambia." In *Media and HIV/AIDS in East and Southern Africa: A Resource Book*. S. T. K. Bofo and C. A. Arnaldo, eds. Paris: UNESCO.
- Baleta, A. 1998. "Concern Voiced over 'Dry Sex' Practices in South Africa." *The Lancet* 352(9136):1292.
- Pronyk, Paul and Brian Lutz. 2013. *Policy and Programme Responses for Addressing the Structural Determinants of HIV*. Structural Approaches to HIV Prevention Position Paper Series. Arlington, VA: USAID's AIDS Support and Technical Assistance Resources, AIDSTAR-One, Task Order 1, and London: UKaid's STRIVE research consortium.
- Beal, K., M. Field-Nguer, and R. Lifuka. 2009. *Support to the HIV/AIDS Response in Zambia: Mid-Term Evaluation Report*. Zambia: USAID.
- Baird, S. J., R. S. Garfein, C. T. McIntosh, and B. Özler. 2012. "Effect of a Cash Transfer Programme for Schooling on Prevalence of HIV and Herpes Simplex Type 2 in Malawi: A Cluster Randomised Trial." *The Lancet* 379(9823):1320–9.
- Packel, L., W. H. Dow, D. de Walque, et al. 2012. *Sexual Behavior Change Intentions and Actions in the Context of a Randomized Trial of a Conditional Cash Transfer for HIV Prevention in Tanzania*. Policy Research Working Paper: Impact Evaluation Series No. 53. Washington, D.C.: World Bank Development Research Group.
- Medlin, C., and D. de Walque. 2008. *Potential Applications of Conditional Cash Transfers for the Prevention of Sexually Transmitted Infections and HIV in Sub-Saharan Africa*. Policy Research Working Paper No. 4673. Washington, D.C.: World Bank Development Research Group.
- Population Council, Zambia. 2010. *Community Mobilization for Preventive Action (COMPACT)*. [Brochure.] Available at [http://www.popcouncil.org/pdfs/2010HIV\\_COMPACTBrochure.pdf](http://www.popcouncil.org/pdfs/2010HIV_COMPACTBrochure.pdf) (accessed March 5, 2013).
- Fox, A. M. 2012. "The HIV-Poverty Thesis Re-Examined: Poverty, Wealth or Inequality as a Social Determinant of HIV Infection in Sub-Saharan Africa." *Journal of Biosocial Science* 44(4):459–80.
- Gibbs, A., S. Willan, A. Misselhorn, and J. Mangoma. 2012. "Combined Structural Interventions for Gender Equality and Livelihood Security: A Critical Review of the Evidence from Southern and Eastern Africa and the Implications for Young People." *Journal of the International AIDS Society* 15(Suppl 1):1–10.
- Kim, J., P. Pronyk, T. Barnett, and C. Watts. 2008. "Exploring the Role of Economic Empowerment in HIV Prevention." *AIDS* 22(Suppl 4):S57–71.
- Zambia Health Education and Communication Trust. 2009. *Corridors of Hope III*. [Website.] <http://www.zhect.org/corridors-of-hope.html> (accessed March 5, 2013).
- Care International. 2011. *A Safer Zambia (ASAZA): Model for a Coordinated Response to GBV under the Women Justice Empowerment Initiative (WJEI) Program*. [Presentation.] Available at <http://www.svri.org/ASAZA.pdf> (accessed March 5, 2013).
- Lawoko, S. 2008. "Predictors of Attitudes toward Intimate Partner Violence: A Comparative Study of Men in Zambia and Kenya." *Journal of Interpersonal Violence* 23(8):1056–74.
- Lawoko, S. 2006. "Factors Associated with Attitudes toward Intimate Partner Violence: A Study of Women in Zambia." *Violence and Victims* 21(5):645–56.
- Nyakujarah, L. J., and C. L. Morna. 2012. *SADC Gender Protocol 2012 Barometer*. Johannesburg: Southern Africa Gender Protocol Alliance.

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