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EDITORIAL

Fast-tracking HIV prevention: scientific advances and implementation challenges

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Background

In 2014 the Joint United Nations Programme on HIV and AIDS (UNAIDS) reaffirmed its 2011 commitment to end the scourge of AIDS by 2030 (see Table 1). Recent articulations of this commitment are outlined in the UNAIDS Fast-Track Strategy and the UNAIDS 90-90-90 Strategy (UNAIDS, 2014a). If, indeed, targets are to be met, a long overdue rethink is needed about what works in HIV prevention.

Epidemics are social and relational phenomena spread and sustained by patterns of human settlement, movement, exchange and — in the case of HIV and AIDS — in large measure by risky sexual behaviours. The “human element” is in turn conditioned by environmental, cultural, political and socio-economic drivers. So as AIDS quickly developed into a pandemic, it soon became apparent that prevention initiatives would need to be tailored to the conditions of at-risk populations, in all their diversity; that general, top-down appeals to self-interest would not suffice; and that there could be no substitute for the reach, consistency and adaptability of on-the-ground initiatives.

Since the start of the international response to AIDS the underlying dynamics of the epidemic have been determined by the rate at which new infections are taking place in relation to the number of AIDS deaths. The considerable success in making antiretrovirals (ARVs) affordable to those who would otherwise have died — some 15 million men and women to date — does nothing to alter this fundamental condition. Life-saving biomedical interventions enjoy rapid, measurable outcomes, while the contribution of effective prevention campaigns can only be calculated on a longer-term basis and with much less certainty that an investment of funding will deliver the calculated returns. Nevertheless, placing HIV-positive people on life-long antiretroviral therapy (ART) without a concomitant commitment to reducing new infections through prevention is a form of bailing out a leaking boat.

A renewed emphasis on prevention is all the more pertinent because of the funding crunch that has already begun to beset international funding for HIV and AIDS. Against calculations from UNAIDS that we require a near doubling of resources, it appears unlikely that levels of funding will do little better than flat-line. Meanwhile, the span (and costs) of the Sustainable Development Goals (SDGs) have already deprived HIV and AIDS of its standing as a unique global emergency, and donor countries must also face looming crises of non-communicable diseases, occasioned by their ageing populations. Most recipient nations are unlikely to be able to make up funding shortfalls by a combination of innovative financing, belt-tightening and efficiencies.

Against this background, it is alarming that prevention initiatives (and levels of funding) have waned in recent years. Global indicators for HIV incidence suggest that too few countries have been able to either reverse the spread of the epidemic on a sustainable basis or stop its progression, and fewer programmes on prevention have been scaled up to national level. While the rate of new HIV infections is stabilising in some of the hardest hit countries, it remains far too high, not least because the future cost of maintaining an ever-expanding pool of people reliant on daily drugs for survival is unsustainable.

Table 1: Goal: ending the AIDS epidemic

Towards zero new HIV infections	Achieve an 80–90% reduction in new adult infections and among key populations (to 200 000–400 000 per year)
Towards zero discrimination	Stigma and discrimination faced by people living with HIV (PLHIV) and key populations reduced by 75% from 2010 levels by 2030
Towards zero AIDS-related deaths	Achieve universal ART coverage – 80% coverage for all people living with HIV, including key populations, by 2020 and 85% by 2030 and viral load suppression of 95% among people on treatment, resulting in an 80% reduction in AIDS-related deaths (to 380 000 per year).

Several factors account for the decline in prevention programmes. The first is the scale (and success) of the ART roll-out. As observed by one analyst, this has:

... contributed to removing debates about health systems from the political realm, recasting them as technical debates about health care and product delivery systems. [Health systems strengthening] is presented as a technical solution and is articulated within an internally fool-proof logic of cost-effectiveness and “saving lives” that is politically appealing and difficult to challenge (Storeng, 2014: 876).

At the same time, community-based prevention programmes (often voluntary) were bypassed by the scale and speed of resources deployed to establish ART regimes. A great deal of momentum, expertise and local trust was dissipated, with implications for what might now be “scaled up”.

Second, social stigma and discrimination against the most vulnerable populations — men who have sex with men (MSM), sex workers, prisoners, injecting drug users — has not diminished sufficiently and, in some instances, criminalisation has made things worse. UNAIDS aims to achieve of zero HIV-related discrimination by 2021. This would align and reinforce the SDG principles of increasing universal health coverage and reducing social and economic inequalities, and articulate rights-based issues regarding sexual and reproductive health and social justice. However, this requires normative change of a kind and on a scale that is not readily open to interventionist or even incentive-based initiatives from outside prevailing cultural values and/or politico-legal strictures. As part of this difficulty, the gender imbalance remains, as evidenced most notably in Southern and Eastern Africa, where young women in the 15–24 year age cohort account for 25% of new HIV infections among adults (UNAIDS, 2015).

Third, there is abundant evidence that successful prevention cannot be conceived at the largest scale and rolled out. Instead, it must be finely attuned to local conditions, needs, preferences and sensitivities. Detailed, empirical research is an ongoing requirement; adjustments to changing conditions will be unavoidable; and the commitment of those nearest the target populations must be secured (or re-secured) however it is funded. For the next phase of the fight against HIV, coverage and consistency are likely to deliver more than grand schemes which have the attractive feature of appearing to be scalable. There is no viable substitute for revitalising, funding and supporting culturally attuned and locally delivered HIV prevention programmes, especially in low resourced settings. These must be regarded not as complementary, but as integral, to biomedical interventions.

Papers in this issue

We have known for over three decades that determining how best to approach this epidemic is neither an idle nor an academic exercise. At stake are people’s lives and well-being and the capacity of communities, businesses and economies to continue to function. The central message of this special issue of AJAR is that although the overall armoury in the fight against HIV and AIDS is limited, a radical approach in its use is required if the desired outcomes are to be achieved. Moreover, the pursuit of “quick-fix” (often biomedical) HIV prevention must be balanced with something we learned very early in the epidemic’s history, namely that HIV is a socio-culturally induced crisis and, as such, a variety of measures are needed at the same time to appeal to different people, groups and circumstances.

Reducing new HIV infections necessitates timely, detailed and robust HIV surveillance data to systematically understand the burden of infection, transmission patterns and the identification of new infections in real time. Traditional data sources of HIV surveillance (women attending antenatal clinics, population-based household surveys and surveillance of HIV in high-risk individuals attending specialist clinics) have provided a reliable measure of existing HIV infections. However, with maturing epidemics and increasing coverage of ART, prevalence increases and masks new infections, especially in key populations. It is critical to know where new infections are occurring and the modes of transmission, to advance our understanding of epidemic dynamic and to develop socially inclusive HIV programming.

In the opening paper of this special issue, Buthelezi, Davidson and Kharsany discuss recent developments and challenges facing HIV surveillance. The authors review existing methods and the application of newer assays and methods to estimate HIV incidence. They also outline methods to enhance our understanding of viral transmission (the emerging science of phylogenetics and using locations to prioritise target populations). The authors assert that recent developments in methods of measuring incidence (laboratory assays that potentially differentiate recent versus established HIV infection) are promising and offer a cost-effective approach for the rapid estimation of HIV incidence. HIV surveillance is an evolving science and population-based surveillance cannot adopt a “one size fits all” approach given the challenges to provide nuanced understandings of complex and localised epidemics. Reliably tracking the epidemic and identifying new infections in real time will guide prevention efforts and predict future trends in the epidemic. This is especially true for poorly resourced regions which continue to face a disproportionate share of the global burden of HIV/AIDS.

A central element of tracking epidemics in real time is to improve HIV testing rates. Treatment as prevention and

pre-exposure prophylaxis are two new evidence-based strategies to decrease HIV incidence, both of which require high HIV testing rates to be effective, and to achieve the UNAIDS goal of 90% of HIV-positive individuals knowing their status by 2030. This goal is under threat because HIV testing rates in many countries remain suboptimal, and only 65.5% of South Africans, where HIV prevalence is high, had ever tested for HIV in 2012 (Shisana et al., 2014). In their paper, Kelvin and colleagues argue that a single HIV testing modality will never be acceptable to everyone. Offering more HIV testing options will more than likely result in increased testing rates. The authors present findings from 20 in-depth interviews conducted in 2010, documenting opinions about self-administered, at-home oral HIV testing — a testing modality still largely unavailable in Africa. Participants were clients of three primary healthcare clinics in South Africa. Self-testing was seen as enabling confidentiality/privacy, saving time and facilitating testing together with partners. There were gender differences in perceptions of self-testing. More men than women indicated that they would test with their partner, with women being less confident that their partners would be willing to test with them. The high levels of gender violence in contexts like South Africa might limit the ability to introduce HIV risk-reduction strategies such as joint partner self-testing. Concerns were also raised about psychological distress when testing at home without a counsellor. Clearly self-testing is an innovative option and may be suited to people who have experienced HIV testing and counselling (HTC) with a provider and therefore received more education around HIV transmission, care and treatment and people who may be marginalised by the healthcare system (sex workers, people who inject drugs, gay and transgender communities and MSM). More research is needed on acceptability of self-testing in key populations.

Although the number of new infections has declined by over 30% in the past decade, young women in Africa have the highest HIV incidence rates. Scaling up efficacious HIV prevention strategies for young women is therefore a high priority. In their paper, Baxter and Abdool Karim examine the available behavioural, structural and biomedical HIV prevention options, in addition to new prevention technologies under development. While numerous social and behavioural change interventions to prevent HIV have shown moderate improvements in outcomes with few studies showing impacts on biological markers (reduction in HIV incidence), addressing the structural drivers of HIV such as gender-based violence have shown some promise. Conditional cash transfers for uninfected women is also reviewed, particularly from recent studies, with mixed findings. As regards biological interventions, the evidence for protective benefits of oral pre-exposure prophylaxis (PrEP) with MSM in Western settings indicated high adherence. However, data on effective adherence strategies for young women in Africa are limited. Microbicides have been plagued by suboptimal adherence. Long-acting antiretroviral injectable agents for HIV prevention are on the horizon and will expand prevention options for this group. Clearly the challenges to programmatic scale up raised in biological and behavioural studies make combination HIV prevention methods an imperative; success depends on a need to better understand lived realities of people being targeted for HIV prevention. The optimal combination will vary by population and location. Baxter and Abdool Karim describe several trials that are underway in Africa to study various combinations of strategies (biological, behavioural and structural) which will noticeably expand the evidence base for impact.

Toska and colleagues expand the HIV combination prevention approach to children and adolescent populations in Eastern and Southern Africa. Adolescents are the only age group with growing AIDS-related morbidity and mortality in this region, making HIV prevention research an urgent priority in this population. In this regard, there is a growing evidence base investigating the forms of social protection for reducing risk behaviours in children affected by HIV. Social protection can be defined as a set of public and private policies and programmes aimed at preventing, reducing and eliminating social and economic vulnerabilities to poverty and deprivation. This paper undertakes a review of academic and policy-based research combined with expert consultations to assess the effectiveness of social protection for HIV prevention and key challenges for programme implementation. The systematic analysis provides useful insights for HIV-inclusive and child and adolescent-sensitive social protection, especially their potential to interrupt risk pathways to HIV infection and for fostering resilience. The effectiveness of cash/in-kind components combined with “care” and “capability” for HIV prevention are also discussed. The authors assert that while we need to stop HIV-negative people from getting infected, we can make great progress by supporting HIV-positive people to stop onwards transmission. The paper also notes that there is a dearth of research on which social protection combination may be best suited to address the compound vulnerabilities of HIV-positive children. More broadly, social protection programmes that are flexible and tailored to age, gender, HIV-related stigma and context, with particular attention to cultural norms, offer opportunities to improve programmatic coverage and uptake. Challenges with regard to scale up of social protection programmes are a key concern. International donors and development partners need to support national governments and community-based organisations to domesticate programmes and build local capacity to improve access and delivery to social protection.

Given the urgency to develop effective interventions for young girls and women, the next three papers in this series expand on the HIV and gender theme through perspectives on intimate partner violence, risky masculinities and the need to place contraception at the centre of the HIV prevention response.

Ending intimate partner violence (IPV) and reducing gender inequalities are recognised as critical to “ending AIDS” by 2030. Amongst women, experiencing IPV has been shown to increase HIV infection, reduce women’s ability to use HIV prevention strategies and reduce adherence to ART-based interventions. Gibbs asserts that the broad articulations between IPV, gender inequalities and HIV are important for recognising the global nature of this relationship and to reinforce the UNAIDS call to centralise these in the response to HIV. Such generalisations, however, limit our understanding of how gender inequalities intersect with other factors to shape HIV and IPV vulnerability. In this paper, the author highlights how the intersections between IPV, gender inequalities and HIV are not the same in all contexts, and argues for an approach to prevention of IPV and HIV that responds to the local realities much more directly. Using reflections of young women living in urban informal settlements, the author notes some key guidelines for gender-based interventions: they should resonate with the needs and experiences of those targeted; must tackle the causes of HIV and IPV at multiple levels; and the need to strategically engage with men and boys. Throughout this paper there is an emphasis on the socio-historical role of space and place in shaping HIV and IPV vulnerability and the ways social programmes seek to insert themselves into these spaces and how they shape men’s and women’s lives. The author asserts that donors, governments and multi-lateral organisations should reconsider how they fund and evaluate interventions that are not geared to short-term outcomes. There is clearly a need for long-term investments in contextually-based research, including an examination of what is meant by “transferability” of evidence to other contexts.

Understanding the behaviours of men and associated constructs of masculinity in high-risk sexual relationships with women is central to the prevention response. More particularly, regular male partners of female sex workers (FSWs) represent an important population to reach with HIV prevention interventions. However, male clients are rarely reached, and the stigma associated with sex work and masculinity drives such men underground, with negative consequences for both themselves and their partners, as well as efforts to fast-track HIV prevention. Mbonye, Siu, Kiwanuka and Seeley provide an in-depth account of the relationship dynamics and HIV/sexually transmitted infection risk behaviours of 42 men involved with self-identified FSWs attending a clinic in Kampala, Uganda. The study poignantly illustrates the performative and contradictory nature of masculinities in sexual relationships. While men publicly struggled with the stigma of dating women who are considered to be engaged in a shamed profession, the men privately saw benefits in these relationships. Relationships with FSWs were sustained due to access to clinics and the financial benefits. These findings are a pronounced departure from the conventional male provider role and normative expressions of masculinity. In coping with the stigma, some described the work of their partners in terms that distanced them from sex work, while others struggled to have the control that “being a man” demanded since they could not monitor all movements of their partners. Dealing with HIV disclosure was hard and seeking support was difficult for some of the men, leading to missed opportunities and guilt. This paper offers some useful insights into the complex relationship dynamics within high-risk sexual partnerships. In this vein, the authors advocate for peer approaches and gender-sensitive interventions that are couple-centred and challenge negative masculine norms in constructive ways. The obvious challenge is that these men are hard to reach. One suggestion is to encourage them to access testing, counselling and treatment through their partners.

In their paper, Crankshaw, Smit and Beksinska examine the interconnected and dynamic relationship between HIV infection and unintended pregnancies. They point to the compelling evidence that countries with high rates of HIV commonly share the joint burden of low rates of contraceptive use, high rates of unmet need for contraception and high rates of unintended pregnancies. Not surprisingly, many of these countries also experience high levels of poverty and gender inequalities — underlying drivers of both HIV infection and unintended pregnancy. In sub-Saharan Africa close to half (44%) of these unintended births occur among women aged 15 to 24 years — the same group disproportionately affected by HIV compared to the other population groups (UNAIDS, 2014b). However, access to and use of contraceptives is suboptimal. The authors assert that unmet contraceptive need is more likely reflective of the lack of national-level prioritisation of contraception resulting in limited access to comprehensive and quality contraceptive services and insufficient counselling on side effects and method mix. While dual protection (prevention of unwanted pregnancy and sexually transmitted infections or HIV) has been identified as a key strategy in the promotion of reproductive and maternal health, data at population level are scanty, with indicators for pregnancy and HIV prevention rarely measured, analysed and presented in a linked way. They contend that a couple’s desire to become pregnant should be accommodated, and messaging around safer conception should be core to HIV prevention efforts, irrespective of a woman’s HIV status. The authors make some recommendations for how to better integrate and compound the impact of these two important public health goals in practice. One key message is to ensure that both HIV prevention and contraceptive policies and guidelines reflect the importance of preventing unintended pregnancies. Importantly, gains from preventing unintended pregnancy extend beyond HIV prevention — these include health, social and economic benefits, resulting in reductions in maternal mortality and morbidity, unsafe abortions, and child morbidity and mortality

— and more broadly, addresses structural level factors (educational and gender equity) which expose girls and young women to HIV risk.

Since the start of the HIV epidemic, community responses have been at the vanguard of prevention and treatment and care activities. There is now wide recognition that community responses must play a strategic role in achieving the targets underlying the scaling up of the AIDS response. The final three papers in the series focus on the nature and form of community-based responses to HIV prevention and signal some important challenges for the current AIDS response paradigm.

Given the importance of developing and sustaining capacity at local levels to propel the AIDS response, Poku and Bonnel provide an in-depth discussion of the literature on funding of community-based responses for HIV prevention. While there is little available information on the funding for community responses in recent years, indications are that civil society organisations (CSOs) have been adversely affected. The financial crisis and economic recession experienced in several donor countries have resulted in stagnation of international assistance for HIV/AIDS which has translated into scaled down services at local level. In addition, the relative share of prevention in AIDS funding has declined across the board. The authors quote UNAIDS data to show that in low-income countries, the prevention share fell from 31% in 2005 to 22% in 2013; in lower-middle-income countries the decline was from 27% to 23% and in upper-middle-income countries the share was reduced from 27% to 23% (UNAIDS, 2015).

Support for community-based responses, however, is premised on its effectiveness for HIV prevention. Compelling evidence exists to support the contention that CSOs in resource-limited countries make a positive contribution to biomedical interventions, together with a wider range of positive health outcomes. The evidence concerning social and behavioural interventions is more limited and the picture for young women and girls in Africa is mixed even in the light of promising community-based interventions focusing on structural conditions such as gender inequalities, intimate partner violence (IPV) and gender education. Funding is needed to expand coverage of these programmes, especially for adolescent girls and young women, but it is unlikely to materialise on the needed scale unless greater clarity is provided on the type of interventions that should be scaled up and how they would be scaled up. The authors argue that the answer lies partly in analysing how the institutional organisation of CSOs, the programme context, CSO linkages with the health sector and local and central governments, and networks affect the performance of the organisations that are delivering behavioural interventions. Having such information would help planners replicate and scale up efficient models and gender-responsive HIV/AIDS interventions. Equally important is the need to understand social and structural factors that impede community organisations delivering effective gender-sensitive interventions. The latter point echoes throughout the series of papers in this issue.

Rolston problematises the tradition of community mobilisation interventions in the AIDS response from the viewpoint of political citizenship. The author asserts that the dominance of technical approaches that tend to narrowly frame communities combating HIV/AIDS as passive “service recipients” and “project beneficiaries” often leave social and economic determinants of health untroubled. The recent focus on the relationship between AIDS prevalence and income inequality, alongside other forms of intersectional inequalities (i.e., gender, sexuality, race, etc.), is seen as a timely reminder of the need for a revaluation of the role of “politics” and “power” in community-based responses. The paper is marked in its intent to foster the resurgence of the citizen in the AIDS response and leans on the work of successful movements like the Treatment Action Campaign (TAC) in South Africa and AIDS Coalition to Unleash Power (ACT-UP) in the United States. Applying the United Nations Development Programme (UNDP) approach — Community Capacity Enhancement-Community Conversations (CCE-CC) — this study explores the experiences of participants, facilitators and local stakeholders to AIDS prevention in the Eastern Cape province of South Africa. The approach is a facilitated, process-oriented method that aims to enhance communities’ capacity to identify key drivers of HIV/AIDS prevalence and build understandings of how these root causes intersect in the lives of community members. The study findings muster an argument for the necessary reframing of AIDS vulnerability that highlights the social and political realities at play in maintaining inequities and shaping the health outcomes of communities on the margins. It is asserted that AIDS prevention, by extension, and its relationship to resistance and struggles for health equity, and equity more broadly, must be critically examined at with nexus of the individual and the collective body of the citizenship. Participatory forms of democracy are seen as a viable way for programmes working with highly marginalised populations with high HIV prevalence rates. This process, however, needs to be amplified by *vertical* efforts to engage and influence powerful stakeholders and representative institutions. Given the complexity of social mobilisation processes, the CC approach presents a form of “critical civic praxis” to reignite action and engagement on broader structural issues governing forms of inequality and health.

Finally, in their paper Leclerc-Madlala, Green and Hallin pick up on the issue of “community” from a health systems strengthening perspective and advocate for the importance of indigenous healers as being central to the AIDS response. This group represents a broad range of practitioners and practices, including treatment

with herbal and spiritual healing, as well as a range of individuals who call themselves herbalists and diviners, priests, prophets and faith healers, among other terms. The authors assert that these indigenous practitioners are domestic resources to building stronger community clinic systems. Such forms of collaboration recognise the positive aspects of African culture that can be incorporated into programming. It is contended that failure to better attune our work to the medical pluralism of communities affected by HIV will continue to hinder HIV programming success and help to assure that the ambitious post-2015 HIV prevention and control goals are not realised. In the context of sub-Saharan Africa's HIV epidemic there is a significant body of literature that demonstrates the critical role that traditional healers can play in improving the success of health programmes, including those for HIV prevention. In their review, the authors go on to provide a short history of collaboration with traditional healers for HIV followed by a description of several successful collaborations and discussion of key elements for success. The major challenge is building mutual trust and sustaining collaboration between biomedical and traditional sectors, given the long and conflictual relationship in Africa. It is intuitively asserted that a shift from a short-term HIV response to a longer-term and more sustainable response is premised on an urgent need to accelerate efforts to leverage and partner with the hundreds of thousands of traditional health practitioners who are already providing health services in communities.

The perspectives on HIV prevention in these papers invoke the argument that the success of prevention is tied up in complex ways with people's diverse life situations, with property, kinship, belief systems, gender relations and livelihoods. The fact that the prevention programming has only produced marginal successes demonstrates that "one size does not fit all". No single modality works, nor does it work everywhere. Context matters! The local cultural, political and material circumstances will influence the content, implementation and ultimately success of any particular programme. Further, epidemics are heterogeneous and dynamic, with different risk factors and routes of transmission. Effective HIV programming necessitates that within countries, epidemics need to be analysed in terms of specific geographies, stage of epidemic, population most at risk and social and economic components.

The universal commitment to ending AIDS is timely; it requires a revitalisation of prevention initiatives, renewed forms of citizenship (both economic and social), and political will and fiscal assurances at a global level.

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