



*Making Choices,
Embracing Complexity,
Driving and Managing Change:*

*The HIV Programmatic Response
Over the Next Generation*

**Final Report of the
Programmatic Response Working Group**

The future course of the epidemic will depend, in large part, on the reach, effectiveness and sustainability of programmes to deliver HIV prevention, treatment, care and support. This report summarizes the results of nearly two years of work undertaken or commissioned by the aids2031 Programmatic Response Working Group (“PRWG”). The report describes the key programmatic challenges that strategic planners, donors, programme implementers and other HIV stakeholders will confront over the next generation. After describing a programmatic framework that describes the complex inter-related factors that increase HIV risk and vulnerability, the report identifies priority recommendations, focusing on those steps required to be addressed in the immediate future to lay the groundwork for long-term success in the response to HIV.

The aids2031 project

The year 2031 will mark the 50th anniversary of the formal recognition of the HIV epidemic. *aids2031* is a consortium of partners that have come together to examine what has been learned to date in responding to HIV, and to bring innovative thinking, critical analysis, and public debate to issues that concern the epidemic's future. Taking account of the many changes that are now occurring in our world – and that will affect both the epidemic and the HIV response in the coming years – *aids2031* seeks to identify things we can do differently *now* to ensure the best possible outcome by 2031.

Nine working groups were formed to address various aspects of the project's work, ranging from the future of HIV financing to strengthened efforts to address the epidemic's social drivers. The PRWG was tasked with examining how programmatic strategies might best be harnessed to achieve optimal results over the next generation.

The aids2031 Programmatic Response Working Group

As one of nine working group established as part of the *aids2031* consortium, the Programmatic Response Working Group ("PRWG") has focused on programmatic aspects of the HIV response over the next generation. The PRWG has been led by Sigrun Mogedal, the Norwegian AIDS ambassador, and Paul Delay, Deputy Executive Director of UNAIDS. As the mandate of every other *aids2031* working groups has programmatic implications, the PRWG worked collaboratively with a number of other working groups to inform its deliberations.

The PRWG began its work in 2008 with a major consultation of global HIV experts in Geneva. The consultation provided guidance on some of the key programmatic challenges and priorities to ensure long-term success in the HIV response between now and 2031.

With the aim of drawing upon the wisdom and experience of key constituencies, the PRWG hosted a constituency meeting in Oslo, Norway, in December 2008. Representatives from 13 different constituencies – including young people, human rights activists, sex workers, men who have sex with men, people who inject drugs, faith-based communities, and other groups – shared perspectives on key challenges to a sustainable, effective response, offering a series of recommendations to the PRWG.

In May 2009, nearly 20 technical experts from around the world convened in Geneva to advance work on the PRWG's key recommendations. The PRWG then prepared a draft report, which was reviewed and commented on by experts who gathered in September 2009 in Montreux, Geneva.

In parallel, the PRWG commissioned two analytic papers. The first, by Professor Alan Whiteside of the University of Kwazulu-Natal, examined the issue of HIV exceptionalism and its role in the HIV response over the next generation. The second, a collaborative product by a separate group of experts, examined the politics of HIV and how political issues will affect the response between now and 2031, while a third paper has analyzed the success or failure of country responses based on existing literature. These papers are being finalized and will be added to the *aids2031* website in the near future.

A list of all individuals who participated in PRWG-sponsored consultations and events is attached as an appendix to this report.

The AIDS programmatic response: Achievements to date

Strategic planning

Nearly 90% of countries – including virtually all countries in sub-Saharan Africa – have national strategic plans in place. In 2008-2009, nearly 60 countries received international technical support for the review and strengthening of national strategic plans.

More than 100 countries have established national targets for universal access to HIV prevention, treatment, care and support.

The vast majority of countries have national coordinating mechanisms in place to guide national responses.

Knowing your epidemic and response

More than 90% of countries reported surveillance estimates in 2009 in line with international epidemiological guidelines.

In twenty-seven countries modes-of-transmission studies were performed and HIV prevention syntheses in 2008-2009, with an additional 30 such studies planned in 2010-2011.

Knowledge of HIV serostatus

In 39 low- and middle-income countries reporting, the number of HIV tests performed more than doubled between 2007 and 2008, while the number of sites delivering HIV testing and counseling services rose by 35% in 66 high-burden countries.

Roughly 40% of all people living with HIV are estimated to know their HIV serostatus.

HIV treatment

Over 5 million people were receiving antiretroviral therapies in low- and middle-income countries as of December 2009– a 10-fold increase in only five years. Treatment coverage as of December 2008 was estimated at 42%.

Antiretroviral therapy had averted 2.9 million deaths as of December 2008 – including 1.4 million in sub-Saharan Africa.

HIV prevention

Coverage of antiretroviral regimens to prevent mother-to-child transmission reached 45% in 2008, compared to 10% in 2004.

Services to prevent mother-to-child transmission have averted an estimated 200,000 new infections among neonates over the last 12 years.

Mitigating the epidemic's impact

About 1 in 10 households that include a child orphaned or made vulnerable by AIDS received some form of free assistance in 2007.

Rates of primary schooling among orphans are within 10% of schooling rates for non-orphans in nearly all high-prevalence countries.

Sources: WHO et al., 2009; UNAIDS, 2008.

Introduction: From 2010 to 2031

During the epidemic's first three decades, important strides were made in building the evidence base for action and in implementing programmes to address the epidemic. Remarkably soon after the epidemic was first recognized, epidemiologists developed a nuanced understanding of how HIV transmission occurred (Curran, 1985), laboratory scientists isolated the virus and developed a test to screen for infection (see Merson, 2008), and investments in basic science research vastly expanded knowledge of HIV pathogenesis. The emergence of antiretroviral therapy represents perhaps the great biomedical research breakthrough in the last half-century. Numerous clinical trials and observational studies in settings throughout the world have identified a broad range of effective HIV prevention strategies (Global HIV Prevention Working Group, 2008). Within the last five years, research results added another tool to the HIV prevention continuum – medical male circumcision, which reduces the risk of female-to-male sexual transmission by about 60% (Gray, 2007; Bailey, 2007; Auvert, 2005). Another promising technology, especially useful for monitoring the status of the epidemic and the effectiveness of the response, is a new generation of serologic incidence testing, which is now being calibrated for use in highly endemic areas, such as sub-Saharan Africa.

These advances have generated important gains in the response to HIV. As of December 2009, over 5 million people in low and middle-income countries were receiving antiretroviral therapy – a 10-fold increase in only five years. Increased access to antiretroviral therapy is estimated to have saved 1.4 million lives in sub-Saharan Africa between 2001 and 2008 (UNAIDS, 2009). Increased treatment access is also transforming health care systems, representing the first-ever broad-based introduction of chronic disease management in many low-income countries.

Gains are also apparent with respect to HIV prevention. The global number of new HIV infections in 2008 was 17% lower than in 2001 and 20-30% lower than the number of incident infections in 1996 (UNAIDS, 2009). In most African countries where multiple surveys of young people have been conducted, improvements have been documented in HIV-related knowledge and risk behaviours in recent years, although these have not been as substantial as needed (UNAIDS, 2009). HIV incidence is also falling in a number of heavily affected countries, including Tanzania and Zimbabwe, and decreasing HIV prevalence among cohorts of young pregnant women in several African countries

suggest that progress in being made in preventing new infections in other parts of the region (UNAIDS, 2009).

Despite these achievements – many of them historic – the epidemic continues to outpace the programmatic response. For every two individuals started on antiretroviral therapy, five new HIV infections occur (UNAIDS, 2009). WHO's revision of international treatment guidelines in 2009 recommending earlier initiation of therapy has effectively increased by several million the number of treatment-eligible individuals and significantly lowered actual treatment coverage. As the demand for second-line regimens increases over time, it is unclear how these will be made available in many settings, as their costs are several times higher than first-line regimens.

Progress in preventing new infections continues to lag. Although the stabilization of HIV prevalence in southern Africa represents a sign of progress, these countries potentially confront endemic levels of infection over the next decade that are nothing short of catastrophic. Moreover, recent trends from countries that experienced early prevention success are not encouraging, as they demonstrate that prevention gains are often difficult to sustain over time. In high-income countries, where some of the earliest and most celebrated prevention successes occurred, rates of new HIV infections have been rising for several years (UNAIDS, 2009).

The programmatic approaches that have been applied thus far will not be sufficient to achieve the level of public health impact needed to dramatically alter the course of the epidemic. To date, HIV prevention and treatment efforts have typically aimed to achieve rapid results. While this approach is understandable in response to a new and rapidly spreading infectious disease that is invariably fatal in the absence of treatment, it has often led programme planners and international donors to focus more attention on implementing a set of standardized interventions, rather than on gathering the evidence needed to determine what works best in particular settings. In addition, the focus on short-term results has resulted in an inadequate emphasis on longer-term efforts that are required to sustain prevention and treatment gains or to address the underlying social and behavioural determinants of HIV risk and vulnerability.

While the way forward inevitably involves pursuing proven programmatic strategies with greater intensity and improved coverage, merely doing “more of the same” in the HIV

programmatic context will not suffice. Halting HIV transmission requires optimized, tailored and targeted use of all available, evidence based prevention tools and technologies, together with rights based policies and an enabling legal environment. Maximizing reductions in morbidity and mortality for people living with HIV requires major improvements in access to services, new social norms that prioritize good health and well being, improved quality of care, sustained continuity of care, combination approaches that optimize adherence, more efficient service delivery, seamless integration of HIV treatment with diverse service systems, and long-term efforts to strengthen health service delivery systems. New approaches to planning, implementing and monitoring HIV programmes are needed that enable key stakeholders to make choices, to address the complexities of national and sub-national epidemics, and to simultaneously drive and manage change. Only with this new approach will it be possible to transition from an emergency response to one that sustains results over the long term.

In an effort to identify strategies to address the many programmatic challenges facing decision-makers and other stakeholders, the aids2031 PRWG convened a series of consultations to examine key issues pertaining to the AIDS response over the next generation. These include an expert consultation in Geneva in May 2008; a meeting of representatives of key constituencies in Oslo in November 2008; a global consultation in Geneva in May 2009; and a meeting of diverse researchers and stakeholders in Montreux, Switzerland, in September 2009. Various analytical papers were commissioned on such topics as the future of AIDS exceptionalism and the politics of the AIDS response. As programmatic efforts touch on every aspect of the response – including financing, implementation of the fruits of scientific research, addressing key social drivers, and region-specific HIV strategies – the PRWG also studied the outputs of the other aids2031 working groups, as well as the outcome report from the aids2031 youth leaders summit in Oslo in June 2009, to examine the programmatic issues raised by the broader aids2031 project.

This two-year exercise in gathering information and perspectives on the HIV programmatic response through to 2031 has aided the PRWG in identifying key HIV-related programmatic challenges in the coming years, formulating recommendations for programmatic action, and identifying future programmatic research priorities. This paper summarizes the results of the PWRG's work.

Global overviews such as the one summarized here play an important role in charting the way forward for HIV programmes, but they inevitably have their limitations. In the final analysis, while global solidarity in the HIV response will be vital to achieving the level of progressed envisaged here, actual programmatic initiatives will inevitably be forged country by country, village by village, and household by household. The critical importance of the specific setting in the programmatic response is a recurring theme in this background document. Indeed, this paper reflects the ongoing tension between the desire to draw general conclusions regarding an appropriate programmatic response and the recognition that responses may and will differ from setting to setting.

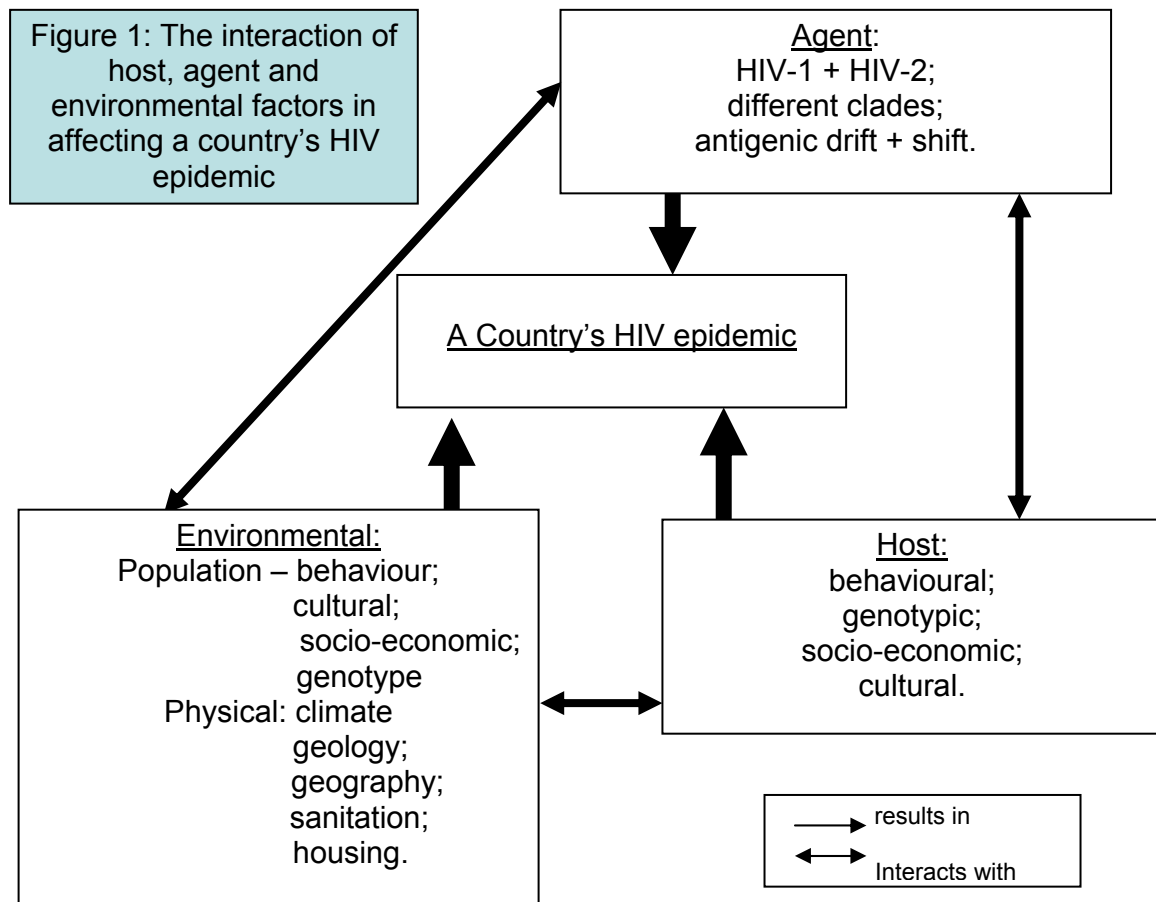
This document does not attempt to comprehensively address the myriad programmatic issues associated with the HIV response. Rather, the paper aims to focus broadly on two central objectives of the HIV response. First, in analyzing the programmatic response over the next generation, this document assumes that all countries and communities should have in place an optimal combination of evidence-informed, synergistic strategies to prevent new HIV infections. Prevention programmes should aim to lower HIV incidence sufficiently to enable the pandemic to diminish over time.

Second, this document assumes that the overarching aim of treatment initiatives is to keep as many people as possible alive for as long as possible to enable them to benefit from the additional medical advances and breakthroughs that are anticipated over the next 20 years. Given limited resources, it is inevitable that different countries will adopt diverse strategies with respect to HIV treatment access. While many middle-income countries may have the resources to self-finance universal access to all classes of antiretroviral drugs, the future prospects for widespread access to costly second- and third-line regimens remains unclear in many low-income countries. The PRWG has determined that global solidarity demands, at the very least, universal access to optimally effective first-line therapy, with the expectation that every reasonable strategy will be pursued (at global, regional and national levels) to plan for future access to second- and third-line therapies.

A Framework for Programmatic Planning and Implementation

Sound, evidence-informed planning of national and sub-national HIV programmes requires a relevant analytic framework that captures the array of factors that affect HIV transmission and influences programmatic effectiveness. Such a framework would enable policy-makers to devise policies and interventions specific to their local needs.

The *Ecological Model of Disease Causation* (Beck and Mays, 2006) takes into accounts the characteristics of, and interactions between, the agent (HIV), the host (the individual at risk of becoming infected), and the environmental factors that affect the likelihood of transmission or the impact of programmes that seek to promote individual and community (Figure 1).



Globally, the vast majority of HIV infections are with HIV-1, with different variants, or clades, predominating in different parts of the world. The modes of transmission of HIV are well documented – through sexual contact, exposure to infected blood (typically via use of infected needles or syringes during drug use, and through infected blood of blood products) and from mother to child. In addition to behavioural and biological factors, the likelihood of transmission is strongly influenced by environmental factors. For example, if a sex worker is offered more money to have unprotected sex with a client and accepts this proposition due to his or her impoverishment, the likelihood of transmission is increased. Likewise, a PLHIV living in poverty may never be able to afford to obtain treatment and care. Treatment access may also be undermined as a result of such factors as stigma and discrimination, gender inequality or

inadequate HIV treatment literacy. Successful HIV treatment also depends on the ability, motivation, and opportunity of individuals to take regimens as prescribed.

Individual risk is affected not only by the surrounding physical environment, but by prevailing social norms and practices. In cultures where the use of condoms is not valued and multiple and concurrent sexual partners accepted, the probability of HIV transmission is enhanced. Similarly, if male circumcision is not considered socially acceptable, the risks of sexual transmission are increased. Societies in which access to condoms, safe blood stores and sterile needles and syringes or other harm reduction measures are promoted, without marginalizing and prosecuting relevant sub-populations, will have greater likelihood of influencing population and individual behaviour to reduce HIV transmission. For the delivery of appropriate health care, physical infrastructure and sufficient human capacity are required

The ecological framework allows for systematic analyses of complex situations and permits the formulation of appropriate strategies, optimizing synergies available from diverse programmatic approaches. Decision-makers, especially in resource-limited settings, have to confront an array of challenges to effectively use this model for programmatic planning. The remainder of this paper analyzes a few of the most important impediments to effective planning, implementation and monitoring of programmatic responses, offering a series of recommendations to improve the ability of all stakeholders to be engaged in providing a more effective and efficient HIV response.

The Next Generation of AIDS: Key Strategic Challenges

Devising effective, sustainable programmatic responses over the next generation will present policy-makers with a series of difficult challenges. Overcoming these will demand extraordinary political commitment and courage; the wisdom to opt for nuanced responses in place of simplistic ones; and an expanded understanding within the HIV community itself about the epidemic's place in the world and its relationship to other health and development priorities. This section examines some of the challenges that will confront decision-makers in the coming years.

Key Strategic Challenges

Making Choices

With limited resources, decision-makers will need to choose among competing priorities. The grounds for making these decisions, as well as the process for reaching them, will in large measure determine the nature, effectiveness and sustainability of national responses.

Embracing Complexity

As the above-noted ecological model makes clear, a variety of factors affect the likelihood of HIV transmission as well as the effectiveness of HIV prevention, treatment, care and support programmes. Rather than opt for simplistic or one-dimensional solutions, decision-makers should acknowledge the complexity of the HIV challenge.

Managing and Driving Change

At the same time that stakeholders work together to reduce the rate of new infections and AIDS deaths, the epidemic and the physical and social environment in which it unfolds will continue to evolve. Programmatic strategies that may be appropriate at one time may become obsolete over time as new challenges emerge, demanding a decision-making process that is dynamic and continually self-reflective.

Making Choices

In a world in which amounts spent annually on armaments dwarfs amounts spent on any form of official development assistance for health, it is clear the resource limitations for the HIV response are a matter of political will rather than one of availability.

Nevertheless, resources are inevitably finite, requiring decision-makers to make choices among competing priorities.

Particularly noteworthy is the chronic and continuing under-investment in HIV prevention. According to national spending reports to UNAIDS, prevention activities account for approximately 21% of all HIV spending worldwide, even though resource needs estimates suggest that prevention should account for roughly 45% of global HIV spending (UNAIDS, 2008). Achieving universal access for treatment and care will require increased funding for antiretroviral scale-up. However, country epidemics will continue to outpace the programmatic responses so long as HIV prevention remains so severely underfunded. Prioritizing HIV prevention will require a degree of political courage, as prevention services typically lack a robust constituency.*

Decision-makers from all walks of life are frequently required to make decisions when evidence is incomplete or equivocal. HIV is no exception. With an ever-expanding evidence base for action, decision-makers are advised to “triangulate” among existing evidence sources to establish priorities and ensure that strong monitoring systems are in place to provide ongoing feedback on the impact of programs. However, a number of critical questions remain unanswered – such as the role of prevention of sexually transmitted infection control in HIV prevention, the best way to mobilize HIV testing for prevention, or strategies to maximize the durability of the effects of particular behavioural interventions. In many settings, the magnitude and geographic distribution of certain key populations have not been ascertained, and the effects of particular social determinants of risk and vulnerability remain imperfectly understood. While working to obtain answers to these and other outstanding questions, it is imperative that decision-makers use the best available evidence in the midst of uncertainty to develop sound programmatic and policy responses.

Decision-makers will also need to be aware of the likelihood that the evidence base for HIV programmatic planning will continue to evolve. Research methods used to inform programmatic planning may also change. To date, HIV-focused research has relied primarily on randomized controlled trials to identify efficacious interventions, but such trials are costly, time-consuming, and not always well-suited to assess the effects of

* As the section below on “Maximizing the Effectiveness and Sustainability of the HIV Response” describes, inadequate funding is hardly the sole impediment to effective HIV prevention. Additional weaknesses include the common failure to match prevention strategies with documented needs, the lack of an enabling legal and policy environment for HIV prevention, and insufficient investment in the monitoring of programmatic impact. All of these issues are addressed in the Priority Recommendations that follow.

multiple strategies that are used in combination. In the future, studies may increasingly aim to identify plausible correlations between programmatic intervention packages and actual impact. In addition, increased use of serologic incidence testing and mathematical modeling could also further expand the evidence base for action.

Once priorities have been established, countries and donors should establish clear, time-bound targets for programmatic coverage and public health impact. While nearly all countries have time-bound targets for HIV treatment scale-up, many lack concrete goals for key prevention strategies. As of early 2009, only 22 countries had targets for prevention coverage for sex workers, only 15 for injecting drug users, and only 13 for men who have sex with men (UNAIDS, 2009). Although concrete target-setting is less common in the prevention arena than for antiretroviral treatment, recent experience indicates that coverage and impact milestones may help drive a more strategic approach to implementing HIV prevention programmes. The Avahan India AIDS Initiative undertook extensive assessment of community needs and attitudes, conducted ethnographic and population mapping research to understand the social context in which risk behaviour occurred, forged strong working partnerships with governmental and non-governmental stakeholders, developed time-bound milestones to guide scale-up, and implemented rigorous monitoring systems to determine whether programmatic goals had been achieved. As recently documented, this approach has given Avahan implementers a high degree of confidence regarding the reach of their services, accomplishment of their programmatic aims, and achievement of meaningful impact (Piot et al., 2010).

Even the soundest set of priorities will not achieve maximum impact if they are not supported by an enabling legal environment. The aid2031 social drivers working group recommends that countries adopt a minimum legal package that includes laws prohibiting HIV-related discrimination, repeal of laws criminalizing the purchase or selling of sex and consensual sexual contact between members of the same sex, and a public health approach to drug use. This recommendation stems from a recognition that punitive and exclusionary legal frameworks impede AIDS programmatic responses by deterring service utilization and exposing vulnerable communities to dangerous conditions where HIV transmission may be more likely.

In framing the various choices that decision-makers face, this section has implicitly assumed the existence of a rational, transparent, well-managed process for agreeing on

national and local priorities. The reality, however, is often much messier. Adherence to principles of good governance varies considerably between and within countries.

Although governments are urged to include civil society as key partners in the development, implementation and monitoring of national programmes, there is no tradition of a robust partnership between civil society and government in many places. The mandated Country Coordinating Mechanisms of the Global Fund to Fight AIDS, Tuberculosis and Malaria undoubtedly represent a step forward in institutionalizing civil society involvement in national decision-making. However, a recent seven-country analysis by the International Treatment Preparedness Coalition determined that civil society had extremely limited influence in preparing national funding proposals, shaping programme implementation, or providing programmatic oversight (International Treatment Preparedness Coalition, 2008).

Fortunately, recent evidence indicates that progress is feasible in expanding the extent and meaningfulness of civil society involvement in the development and implementation of national HIV strategies. According to reports by both governmental and non-governmental informants submitted to UNAIDS in March 2010 for monitoring progress towards implementation of the 2001 Declaration of Commitment on HIV/AIDS, a clear trend is apparent towards increased civil society engagement in national decision-making in sub-Saharan Africa (see <http://www.unaids.org/en/KnowledgeCentre/HIVData/CountryProgress/2010CountryProgressAllCountries.asp>).

Embracing Complexity

To date, programmatic efforts have exhibited excessive reliance on simplistic approaches, such as the ‘ABC model’ of preventing sexual transmission, or misplaced faith that a “magic bullet” would soon emerge, such as a 100% effective vaccine. The reality is that reducing new HIV infections is neither simple nor easy. Experience from diverse settings, however, demonstrates that it is achievable.

The intrinsic complexity of many country epidemics demands that decision-makers take account of the range of relevant factors – behavioral, biomedical, social, political and

legal – in designing combination programmatic packages. As Peter Piot and colleagues advised in 2008: “Expanded HIV prevention grounded in a strategic analysis of the epidemic’s dynamics in local contexts is the *sine qua non* of getting ahead of the epidemic. Shortcuts are tempting, but illusory. Every time a magic-bullet solution has been proposed for HIV/AIDS, it has been found wanting . . .” (Piot et al., 2008).

In recent years, the tools available to country decision-makers to understand epidemiological trends have expanded. In particular, UNAIDS has supported countries to estimate incident infections by modes of transmission, using available data sources to develop evidence-based pictures of national epidemics. In 2008-2009, UNAIDS supported modes-of-transmission exercises covering 27 countries, with plans to extend such support to an additional 30 countries in 2010-2011. In concert with country partners, UNAIDS is working to prepare country-specific incidence estimates.

Understanding the social forces that affect the epidemic presents somewhat greater challenges for decision-makers. Here, too, there have been advances, such as the development of the People Living with AIDS Stigma Index (<http://www.stigmaindex.org/>), which permits the measurement and characterization of HIV-related stigma in different settings. To inform future HIV programming, the generation of other affordable, reliable, user-friendly mechanisms to understand the social determinants of HIV risk and vulnerability represents an urgent research priority.

Due to the complexity of HIV, programmatic strategies have sometimes had unintended negative consequences. In high-income countries, the emergence of highly effective antiretroviral therapy has been accompanied by notable increases in risk behaviour, at least among men who have sex with men (UNAIDS, 2009). In a recent study in Zimbabwe, while individuals who tested HIV-positive took steps to avoid exposing others to the virus, those who tested HIV-negative tended to increase their levels of risk behaviour (Sherr et al., 2007). And there is some evidence to suggest that selective pressure resulting from antiretroviral therapy may be rendering HIV more virulent over time (Garnett et al., 2010; Fraser et al., 2007). As other prevention technologies or programmatic strategies emerge over the next generation, additional unforeseen consequences will also occur.

An additional complexity facing programmatic planners and implementers is the extraordinary diversity of epidemics from one setting to another (UNAIDS, 2009). The diversity of the epidemic necessitates radically different programmatic responses in different venues. While certain principles may be identified that apply to diverse settings, different local circumstances may require different approaches to programmatic planning and implementation.

Even at the national level, where it is assumed that programmatic decision-making is typically focused, policy-makers must often devise programmatic strategies for epidemics that vary widely. For example, in Kenya, there is a more than 15-fold variation in provincial HIV prevalence, while a more than 16-fold difference in prevalence is apparent in Tanzania (UNAIDS, 2009). Within the tiny country of Benin, there is a 12-fold difference in HIV prevalence among the highest-prevalence and lowest-prevalence parts of the country (UNAIDS, 2009).

Variations in local circumstances may result in substantially different programmatic priorities within the same country. For example, while more than 80 per cent of all Kenyan males aged 15-64 years were circumcised in 2007, only 49 per cent of men in the country's Nyanza province were circumcised. The existence of extensive sub-national differences has led to increased calls for the decentralization of HIV strategic planning and programmatic implementation, with increased focus on provinces, districts and municipalities as key decision-makers for developing programmatic strategies.

Managing and Driving Change

The ever-evolving nature of the epidemic presents programmatic planners with additional challenges. While seeking to drive change to prevent new infections and reduce AIDS deaths, decision-makers are also required to *manage* change, as well. The epidemic's constant evolution, combined with a continually expanding evidence base, requires policy-makers to monitor trends in the epidemic and the national response, revisit programmatic strategies, and adapt strategies to new circumstances.

Epidemics change over time. In eastern Europe and central Asia, for example, epidemics that were once almost exclusively characterized by transmission through injecting drug use, are now increasingly driven by sexual transmission (UNAIDS, 2009).

In China, where injecting drug use was driving its national epidemic, heterosexual exposure now is the dominant mode of HIV transmission (UNAIDS, 2009). As generalized epidemics in sub-Saharan Africa have matured, incident HIV infections have become increasingly concentrated among older adults in stable, long-term relationships (UNAIDS, 2009). Over time, new cohorts of young people, who may have little or no knowledge of the risks of HIV transmission, become sexually active. At an individual level, prevention needs may also change as people age. Moreover, as powerfully illustrated by favourable findings on the effectiveness of adult male circumcision in lowering the risk of female-to-male sexual transmission, the array of prevention tools available continues to expand, requiring decision-makers to thoughtfully integrate new strategies as they emerge and to remain mindful of both positive and negative synergies between different prevention approaches.

Even “success” in the programmatic response can be short-lived. After more than a decade of sustained prevention success, Uganda has in recent years witnessed a pronounced deterioration in key behavioural indicators (UNAIDS, 2009). Resurgent epidemics are occurring in several high-income countries that had previously seen a steady decline in HIV infections. According to a recent analysis of one efficacious behavioural intervention for men who have sex with men, favourable intervention effects appear to dissipate after 12-18 months, eventually resulting in little difference in HIV incidence between intervention and control groups after 3-3.5 years (Global HIV Prevention Working Group, 2008).

Increased treatment access also alters the context in which decision-makers determine programmatic priorities. Treatment access places upward pressure on HIV prevalence as a result of improved longevity and it also enhances the health and quality of life of people living with HIV, potentially increasing the number of opportunities for HIV transmission. Treatment access creates new opportunities for HIV prevention at the same time that it may complicate prevention efforts; while serving as a potentially important incentive to learn one’s HIV serostatus, widespread treatment access may also change people’s perception of the seriousness of HIV.

Our understanding of the best strategies for managing HIV is also evolving. For example, while national plans for scaling up HIV treatment have been based on certain assumptions regarding the initiation of therapy, antiretroviral treatment guidelines are

moving toward starting patients on antiretrovirals at a much earlier stage of disease. This change will necessitate not only changes in clinical practice, but will also have potentially important consequences regarding the financing and sustainability of treatment programmes.

Events and trends that ostensibly have little to do with HIV are likely to have an enormous influence on the epidemic itself and on the HIV response. Climate change is only one of many factors that could heavily influence the future of HIV. The Intergovernmental Panel of Climate Change predicts that Africa will be the region most heavily affected by the radical changes that a warming climate is likely to bring (Intergovernmental Panel on Climate Change, 2007). According to the United Nations Environment Programme, between 75 million and 250 million Africans could experience acute water shortages in the coming years, and the International Livestock Research Institute reports that many parts of Africa may be unable to support crazing of livestock. The patterns that these changes are likely to trigger – from the need for young girls to walk longer to fetch water, to a rapid acceleration in the already-pronounced process of urbanisation – will have potentially important effects on efforts to control and manage local epidemics.

Maximizing the Effectiveness and Sustainability of the HIV Response: Priority Recommendations

The deliberations of the PWRG were intended to identify action steps to achieve the following outcomes by 2031

- Increase the impact of programmatic efforts;
- Ensure longer-lasting impact as a result of programmatic strategies; and
- Build and sustain the capacity that will be required to respond effectively to HIV.

Based on the numerous consultations and papers commissioned by the PRWG, the working group identified a series of priority recommendations to achieve these programmatic aims. These recommendations, are clustered into five categories: (1) HIV prevention, (2) HIV treatment, (3) Programmatic approaches applicable to all HIV-related programmes, (4) A people-centred approach, and (5) Long-term sustainability of the response.

HIV prevention

Many of the recommendations on HIV prevention are not new. Yet despite clear consensus regarding optimal strategies for preventing new infections, it is remarkable how infrequently some of these approaches have been put in place. It is apparent that radical reductions in new HIV infections between now and 2031 will require more rigorous and systematic use of lessons learnt to date in the HIV response.

Prioritize HIV prevention

When world leaders gathered at the United Nations General Assembly in 2001 for the body's first-ever special session on HIV/AIDS, they unanimously endorsed a declaration that declared HIV prevention to be the "mainstay of the response" (Declaration of Commitment on HIV/AIDS, 2001). Actual practice is far removed from the vision embraced by the global community. Instead of serving as the cornerstone of our efforts

to bring this greatest of global health challenges under control, HIV prevention has suffered from a chronic, disheartening and self-defeating under-investment of financial and political capital. According to a 2010 analysis by the Global HIV Prevention Working Group, HIV prevention receives only about one-third of amounts needed to bring evidence-informed strategies to scale (Global HIV Prevention Working Group, 2010). Moreover, throughout the world, most political leaders who have pioneered the historic gains in treatment access have run for cover when difficult issues of human sexuality, sexual difference, drug use, and social marginalization have needed to be addressed for HIV prevention.

Leading donors have either failed to prioritize prevention or failed to report funding allocations in a manner that permits meaningful evaluation of support for evidence-informed prevention efforts. For example, although UNAIDS and its research partners recommend that 45% of funding globally focus on HIV prevention efforts, PEPFAR devoted only 22% of funding towards HIV prevention efforts during 2009 (Office of Global AIDS Coordination, 2009); subsequently, PEPFAR has indicated its intention to increase support for prevention services in the future. The Global Fund currently does not report spending in a manner that identifies the total percentage of HIV-related funding that is directed towards prevention services.

The imbalance between resources for prevention and treatment diminishes the long-term impact of efforts to combat the epidemic and ironically threatens the sustainability of the historic gains made in expanding treatment access. The 29 million people who are currently infected but not receiving antiretrovirals are essentially in a global queue for treatment. While many of these individuals need treatment right now, the majority have no immediate need for the drugs but will require them at some point. With the rate of new infections dramatically outpacing the scale-up of treatment, the global queue for treatment grows longer by the day. Unless this situation is reversed and the rate of programmatic scale-up made to exceed the pace of the epidemic's expansion, the world will never get ahead of the epidemic. Thus, the under-investment in HIV prevention is essentially setting the world up for failure on HIV.

Recommendations

- *Countries and donors should significantly increase resources for HIV prevention, working to triple baseline funding for prevention services.*

- *All donors should report HIV-related spending in a manner that allows observers to quantify the amount of HIV prevention funding and the specific prevention strategies supported with such funding.*

Implement combination prevention

As HIV is transmitted by a limited set of human behaviours, efforts to reduce new infections have been overwhelmingly oriented towards strategies to affect the individual decision-making process (Auerbach et al., 2009). This approach to HIV prevention was perhaps understandable as an early, emergency-style response to a new problem, but it utterly fails to address the social, economic, cultural and physical contexts in which individual behaviour occurs.

The reductionist approach to HIV prevention that focuses on short-term interventions for individuals is compounded by a lack of sophistication in the planning of prevention programmes. If one reviews most national HIV prevention plans or grant proposals to the Global Fund to Fight AIDS, Tuberculosis and Malaria, prevention efforts are typically described as a disconnected set of strategies (Global Fund, 2009). Frequently, no overarching goals for reducing new infections or changing behaviours are articulated. No explanation is provided about how the various components of HIV prevention fit together. No effort is made to describe the anticipated or desired causal pathways for prevention programmes or to justify the selection of interventions or the choice of target populations.

A different, more strategic and comprehensive approach is possible. For any single population or geographic area, sound HIV prevention will involve a combination of three components: (a) strategies to change individual *behaviours* and to sustain these changes over time, (b) ready access to *biomedical* tools and technologies that reduce the likelihood that any single episode of risk behaviour will lead to HIV transmission, and (c) *social or structural* approaches that alter social norms or the physical environment to facilitate risk reduction and maximize the reach and impact of prevention services.

Any rationally planned HIV prevention programme will include all of these elements, describe how they support one another, project how the programme is intended to work, indicate how success will be defined, and articulate a robust approach to monitoring and

evaluation to see whether the programme is achieving its desired impact. This approach is not a new idea. Yet what is so striking about a review of existing prevention efforts is how seldom this common-sense approach is put into practice.

To improve the effectiveness and sustainability of HIV efforts, programme planners need to pay greater attention to potential synergies between different components of “combination prevention.” For example, while HIV testing and behavior change programmes undoubtedly have a role to play in prevention efforts, they may have greater impact if they are combined and focused on particular populations. For example, take serodiscordant couples, in which the uninfected partner stands a roughly 80% chance of becoming infected within a year (Wawer et al., 2005). In Kenya, it is estimated that 44% of married or cohabitating people living with HIV have partners who are uninfected (Kenya Ministry of Health, 2009). While HIV testing has not always shown to have the desired prevention impact in every setting or for every population, the evidence is overwhelming that testing couples together leads to a dramatic lowering of the odds that the uninfected partner will contract HIV (Allen et al., 2003).

Other synergies are also apparent but often imperfectly captured. For example, programmes to diagnose and treat sexually transmitted infections are likely to be most effective if they are viewed as opportunities to access and link to intensive behavioural interventions those populations engaging in risky sexual behaviours. Harm reduction programmes for drug users are more effective if they are combined with policy changes or with outreach to reduce harassment of programme participants and service providers by law enforcement personnel.

Making combination prevention feasible requires concerted efforts to strengthen the evidence base for programming for social change and structural interventions. Methodological and practical questions about how best to evaluate structural approaches have long bedevilled efforts to get a better handle on how best to intervene. To date, only one structural intervention has been rigorously evaluated to assess its impact on HIV incidence – a combined microfinance, education and empowerment programme for women piloted in South Africa (Pronyk et al., 2006). Just as programme planners require user-friendly tools to document, characterize and measure key social drivers, they also need a more fully developed evidence base for action.

Recommendations

- *All national prevention plans should include a strategic combination of behavioural, biomedical, social and structural strategies. Each such plan should identify target outcomes, articulate anticipated causal pathways, and explain how synergies between different prevention approaches will be captured and maximized.*
- *Substantially greater investments in social science research are needed to build the evidence base for action on social and structural interventions.*
- *Independent panels of recognized technical experts should be established to score prevention programmes on normative criteria for use of combination prevention interventions and policies, including the matching of programmatic priorities with the epidemic profile.*

Tailor HIV prevention strategies to national and local needs

Timely and accurate information about a country's epidemic is the starting point for sound planning of HIV strategies and programmes. It is important to know who is becoming infected and at what rate, as well as the behaviours and factors that are driving the epidemic.

Public health information systems are weak in many low-income countries. Thus, technical agencies like the World Health Organization (WHO), UNAIDS, and the US Centers for Disease Control and Prevention (CDC) have worked to strengthen national HIV information systems and to build capacity to use available data to make informed estimates about the epidemic.

Although the quality and breadth of national HIV information are much better today than they were earlier in the epidemic, information systems continue to suffer from a limited ability to gather reliable data on the cutting edge of the epidemic – namely, new HIV infections. Historically, HIV information systems have collected data on new AIDS diagnoses and on positive HIV tests. Even assuming for the sake of argument that such data collection is robust and complete, this information only encompasses people who have come forward to learn their HIV status or have been treated in public clinics. Because many people live with HIV for years before they ever test positive, standard

surveillance systems can only provide partial, potentially misleading glimpses of the epidemic's cutting edge.

This isn't a problem that is confined to low-income countries. Even with what is arguably the world's most prestigious epidemiological agency (CDC), the US developed its first evidence-informed estimate of new HIV infections *in 2008* – 27 years after the epidemic was first recognized (Hall et al., 2008). In the absence of a pristine mechanism for directly measuring new HIV infections, US epidemiologists used a combination of two approaches – serologic incidence testing in a subset of jurisdictions, confirmed by a model to extrapolate from available data – to develop its first-ever estimate of new infections. Revealingly, the US exercise demonstrated why an accurate understanding of the epidemic's cutting edge is so vital for programmatic planning and design. Contrary to earlier assumptions that the annual number of new infections in the US was around 40,000, US-based researcher found that actual HIV incidence was about 40% higher. Moreover, while much had been made about sharp declines in new HIV infections reported from cohort studies among gay men in the 1980s and early 1990s, the US exercise found that the dynamics of its epidemic had radically changed over time as a result of a steady resurgence of new infections among men who have sex with men.

To strengthen the ability of planners in low- and middle-income countries to link prevention strategies to actual needs, researchers have developed a range of strategies to use limited data from public health surveillance to estimate new HIV infections in diverse settings (UNAIDS, 2009). One of the most promising is the “estimating HIV incidence by modes of transmission” model, which uses available data to develop a single-year estimate of the number and distribution of new HIV infections in a given country (Gouws et al., 2006). In 2008-2009, with support from UNAIDS, epidemiological syntheses by modes of transmission were conducted in 27 different countries.

These recent depictions of HIV incidence in different developing countries have demonstrated that national prevention priorities often bear little resemblance to the actual cutting edge of their epidemic. In Swaziland, where people over 25 account for two out of three new infections, few prevention programmes focus on older adults (Mngadi et al., 2009). In Lesotho, national prevention efforts generally ignore older couples, even though the country's modes-of-transmission analysis estimates that people in stable relationships make up 62% of new infections (Khubotlo et al., 2009). While Uganda's prevention strategies are heavily weighted towards young people, older

adults in monogamous relationships represent 43% of new infections (UNAIDS, 2008a). Even though men who have sex with men account for 15% or more of incident infections in Kenya and parts of west Africa, prevention programmes for this population are virtually non-existent (Gelmon et al., 2009; Bosu et al., 2009).

Such striking disconnects between national prevention efforts and documented epidemiological trends are unfortunately not exceptional. On the contrary, they have been found in virtually every country that has benefited from modes-of-transmission analyses and HIV prevention syntheses over the last two to three years. By failing to focus on those most likely to become infected, prevention efforts inevitably fail to achieve maximum impact.

Because these modes-of-transmission analyses and HIV prevention syntheses have proven so helpful in guiding national planning and programme design, plans are already in place to increase the availability of such technical tools for national decision-makers. In 2010-2011, UNAIDS plans to extend access to modes-of-transmission analyses to at least 30 additional countries. Periodic epidemiological studies and modelling exercises need to become standard practice in all countries, to enable HIV programmes to respond to emerging needs in a timely and strategic manner.

In addition to assessing epidemiological trends, programme planners also urgently need validated, affordable, user-friendly tools to understand the social conditions that can increase risk behaviour. A central challenge to the development of such tools is that the social or structural factors often cited as relevant to HIV programming do not operate in a consistent or unidirectional manner in all settings. For example, while it is often asserted that poverty is fueling the spread of HIV, there is in fact no consistent pattern in sub-Saharan Africa correlating HIV risk with household income (Piot et al., 2008).

The same is true for gender inequality, another factor commonly cited as a principal driver of HIV. While evidence strongly indicates that gender norms are contributing to the disproportionate levels of HIV among women and girls in sub-Saharan Africa and in parts of Asia (UNAIDS, 2008), epidemics in other parts of the world where gender inequalities are pronounced primarily affect men.

Just as epidemiological trends vary from setting to setting – within and between countries and regions – the relationship of social forces to HIV also varies, in some cases quite radically. Designing programmes to address social determinants of risk and

vulnerability demands new and better tools to understand the factors of relevance in particular settings.

Recommendations

- *UNAIDS should ensure that every country has access to a modes-of-transmission study and HIV prevention synthesis at least once every three years. These HIV prevention syntheses should include sociological and ethnographic analyses of prevention priorities and gaps. Donors should provide focused financial support to UNAIDS to support these periodic country-level exercises. Within the next 5 years, when serologic incidence tests will be calibrated based on HIV 1 subtypes, these tests should become standard monitoring tools.*
- *International research and technical agencies should prioritize the development of user-friendly, affordable mechanisms to identify and characterize key social factors that affect HIV risk and vulnerability in specific country settings.*

Prioritize HIV prevention for most-at-risk populations

HIV discriminates, generating disproportionate burdens on certain marginalized populations. In comparison to a global adult HIV prevalence of 0.4%, data submitted by low- and middle-income countries to WHO and its research partners in 2009 suggest that global HIV prevalence is 3% for sex workers, 6% for men who have sex with men, and 13% for people who inject drugs (WHO et al., 2009).

These global figures potentially understate the extent of infection among most-at-risk populations in some regions and many localized settings. According to country reports submitted to UNAIDS in March 2010, more than 70% of sex workers in some countries are believed to be living with HIV. In Asia, men who have sex with men are believed to face a nearly one-in-five risk of contracting HIV (Baral et al., 2007).

Although elevated levels of HIV infection have long been documented among sex workers in all regions, it was long believed that new infections were rare in sub-Saharan Africa among men who have sex with men and injecting drug users. Recent

studies have undermined such assumptions. In Kenya, men who have sex with men, injecting drug users, and sex workers and their clients are estimated to account for roughly one in three new HIV infections (Gelmon et al., 2009). In Nigeria, Africa's most populous country, these same groups make up nearly one in four new infections (National Agency for the Control of AIDS, 2010).

Despite the enormous risks faced by these communities, as well as the strategic public health imperative to focus prevention services on these groups to advance long-term control of the epidemic, most countries have systematically ignored the prevention needs of these populations. Even in concentrated epidemics, which by definition are characterized by high infection rates among most-at-risk groups, less than 20% of prevention funding supports programmes focused on these populations. In low-level epidemics, only about 10% of prevention funding is targeted towards the groups that make up the majority of new infections in such settings. And in generalized epidemics, where most-at-risk populations consistently have higher HIV prevalence than the general population, less than 1% of all prevention spending is allocated for these populations (UNAIDS, 2008).

Many countries compound this neglect of most-at-risk populations through institutionalized discrimination that increases social marginalization and deters individuals from seeking HIV prevention services. Globally, 76 countries (most of them low- and middle-income), prohibit sexual contact among members of the same sex, with several countries imposing the death penalty for people convicted of such offenses (Ottoson, 2010). Only 62 and 35 countries allow drug users access to substitution therapy with methadone or buprenorphine, respectively (Travel Resource Center, 2010), and more than 50 countries mandate coercive or compulsory treatment for individuals convicted of a drug offense (IPPF, 2008). Offering or soliciting money in exchange for sex is illegal in 110 countries (IPPF, 2008).

The neglect of the HIV-related needs of most-at-risk populations, exacerbated by punitive laws and policies, is not only indefensible from a human rights standpoint, but it is counterproductive with respect to efforts to bring national epidemics under control. By allowing new HIV infections to become more heavily concentrated in particular populations, they increase the likelihood that epidemics will continue to evolve and threaten other groups as well. This has been repeatedly and exhaustively

documented in many regions. Failure to focus prevention efforts on people who use drugs, men who have sex with men, and sex workers inevitably results in increased transmission to their sex partners. Unless prevention programmes are focused on the populations where new infections are occurring, the vision of achieving radical reductions in new infections by 2031 will not be attained.

Reversing this legacy of neglect will require extraordinary political courage, as well as international solidarity to hold leaders accountable. Recent months have demonstrated the potential for global pressure to generate at least modest changes in policies regarding most-at-risk populations. In 2010, following an international outcry, the President of Malawi pardoned two gay men who had been sentenced to 14 years imprisonment under the country's sodomy law. The law itself has, however, not been repealed.

Recommendations

- *Countries and donors must take immediate steps to increase funding for rights-based, evidence-informed programmes to prevent new HIV infections among men who have sex with men, people who inject drugs, sex workers and their clients.*
- *Countries should remove all punitive and discriminatory laws and policies concerning most-at-risk populations. Criminalize prohibitions on same-sex sexual practices, as well impediments to meaningful, non-discriminatory access to harm reduction services for drug users, should be repealed. Laws prohibiting the sale or purchase of sex should be repealed, with all countries taking steps to provide women and girls with meaningful economic alternatives to sex work.*
- *National and global political leaders should speak openly and often regarding the need to replace prejudice and marginalization with tolerance, understanding and solidarity.*

Link HIV prevention to broader development efforts

Although the links between HIV vulnerability and the structure and functioning of society are often apparent, they have frequently been imperfectly captured by programmatic efforts. For example, although evidence from 11 African countries clearly correlates

higher educational levels with reduced HIV prevalence (Hargreaves, 2008), HIV programmatic efforts have invested relatively limited attention to universal education initiatives. Somewhat closer coordination is apparent with respect to HIV programmes and efforts to promote gender equality and empower women and girls, but here too key opportunities are being missed, such as coupling HIV prevention with programmes that aim to transform the gender norms of men and boys.

In his annual report to the United Nations General Assembly, UN Secretary-General Ban-Ki Moon addressed the need to maximize synergies between HIV programmes and efforts to achieve the full array of Millennium Development Goals. As the report explains, new performance indicators will need to be developed to guide efforts in this regard, and the HIV community will need to strengthen outside alliances and develop new areas of expertise.

Recommendations

- *HIV support should be leveraged to strengthen health, education and social service systems.*
- *HIV advocates should build strategic alliances with advocates for other Millennium Development Goals.*
- *Increased attention should focus on closer linkages between HIV programmes and efforts to promote the broad array of Millennium Development Goals, including universal education, gender equality, poverty reduction, and broad-based health gains on childhood mortality, maternal health, and other infectious diseases.*

Monitor impact

HIV is probably the best-documented global epidemic in history, and HIV programming is the best-monitored of any global health undertaking. However, given the extensive investments in HIV-related monitoring systems, it is striking how little HIV monitoring has been used to inform programme design and adaptation. We know a great deal about many macro-questions – the number of people on treatment, the number of HIV tests administered, the number of pregnant women who receive services to prevent transmission to their newborns – but programme planners have precious little

information about whether their programmes are having the desired *impact* in the real world.

As a blue-ribbon panel at the Centre for Global Development concluded in 2006, many policy-makers are losing patience with the lack of rigorous impact evaluations for costly health and development programmes (CGD Evaluation Gap Working Group, 2006). With the global health and development agenda becoming increasingly crowded with competing priorities – including but not limited to efforts to slow global climate change and to bolster the ability of countries to cope with its consequences – lack of reliable evidence about whether programmatic outlays are producing results risks diminishing the long-term political support that will be needed to sustain a robust fight against the epidemic.

These failings are especially noteworthy with respect to programmes to prevent new HIV infections. A veritable mountain of studies exists to demonstrate the efficacy of various approaches to generate favourable behaviour change for HIV prevention. However much these studies, undertaken under controlled research conditions and relying almost exclusively on study participants' self-reported behaviours, may be convincing to prevention practitioners, they have become less and less persuasive to those who foot the bill for HIV programmes. Without rigorous evaluations to assess epidemiological impact and to permit attribution of epidemic trends to specific programmatic approaches, prevention programmes risk losing support over the long run. Indeed, there is evidence that this is already happening, with prevention programming consuming only about one-fifth of all HIV expenditures (UNAIDS, 2008). In the U.S., prevention spending has claimed a steadily shrinking share of the public sector's HIV portfolio over the course of the epidemic, currently accounting for only 3% of national HIV spending (Henry J Kaiser Family Foundation, 2009, <http://www.kff.org/hiv/aids/upload/7029-06.pdf>). Were this trend to be replicated on a global level over the next two decades, the results would be potentially catastrophic.

The lack of rigorous impact evaluations is not exclusively confined to the world of prevention programming. Treatment programmes have done a much better job of counting the number of patients receiving therapy than in assessing the actual impact of programmes on individuals, households, communities and societies. Fortunately, some leading donors are recognizing the pitfalls of this approach. The US government's new five-year Global Health Initiative – 81% of which will be dedicated to services for HIV, TB

and malaria – aims to move beyond tracking expenditures and service utilization to implement monitoring systems to evaluate the initiative’s impact on health outcomes.

Impact monitoring is not only needed to sustain political support, but also to guide programme design and adaptation. Monitoring efforts would enable programme planners and implementers to determine whether intermediate and long-term programme milestones are being met, whether programmes are successfully following the projected causal pathway, the degree to which programmes are reaching those who need them, and whether programmes are having their desired impact.

Impact monitoring is a component of a much broader effort required to ensure the quality of programmes is acceptable and continually improving. In this regard, it is worthwhile to contrast the monitoring approach taken in the HIV field with those typically adopted by private businesses and industries. No company – whether it be Starbucks, Philips Electronics, or Tata Motors – would see a benefit in having a stand-alone monitoring and evaluation unit to gather esoteric data of an academic interest. Rather, companies rigorously monitor their operations to answer questions that are vital to their success: Do consumers like my product? Are they buying it? What qualities increase or decrease the attractiveness of my product? What distribution or sales channels appear to be most successful? Are there quality problems with my product, and if so, what are they and how can they be fixed? Are employees who interact delivering good quality?

Recommendations

- *Major investments are required to implement systems, processes and mechanisms to assess the actual impact of HIV prevention programmes on HIV incidence. Where feasible, prospective evaluations should be built into programme design, with particular focus on measuring the impact of combinations of prevention interventions. Support for impact evaluations must be regarded as a mandatory cost of doing business for HIV funders.*
- *National programme planners, programme implementers, and donors must demonstrate commitment to follow the findings from robust, well-designed impact evaluations, enhancing support for approaches proven to reduce HIV infection and reducing or withdrawing support from interventions that achieve inadequate impact. All stakeholders must recognize that for some strategies*

– such as social or structural interventions – significantly longer time frames may be required to achieve the desired impact on HIV infection rates.

Linking HIV prevention and treatment in programmatic planning and design

The recognition that antiretroviral regimens may substantially lower the infectivity of a person living with HIV has given rise to a new wave of antiretroviral-based prevention methods. Antiretroviral therapy is the cornerstone for prevention of mother-to-child HIV transmission. This success story has given rise to additional research avenues. As this report went to press, numerous studies were underway to study the efficacy of antiretroviral use for pre-exposure prophylaxis. And several research efforts were also examining the use of antiretrovirals as key ingredient of experimental vaginal microbicides.

In recent years, speculation has increased regarding the possible prevention benefits stemming from antiretroviral therapy for people living with HIV. Researchers in the Canadian province of British Columbia have concluded that notable declines in HIV incidence among people who use drugs in a 10-block area of Vancouver can be attributed to increased utilization of antiretroviral therapy. In 2008, a scientific team at the World Health Organization undertook an epidemiologic modelling exercise that suggested that the epidemic could be eliminated in sub-Saharan Africa in future decades through implementation of universal voluntary HIV testing and immediate initiation of antiretroviral therapy (Granich et al., 2008).

These findings continue to be widely debated within the HIV field, focusing on such questions as costs, feasibility, whether the findings are applicable to concentrated epidemics, and ethical questions associated with calls to initiate therapy in people who may individually not need it. In November 2009, the World Health Organization convened a global consultation to develop a research agenda to explore these and other questions pertaining to the use of antiretroviral therapy for HIV prevention. Already, numerous research exercises are underway to study these questions, including pilot “test-and-treat” projects in the U.S. and Canada.

Whether or not the hopes implicit in these modelling exercises come to be realized, it is increasingly evident that HIV prevention and treatment are closely linked with each other. This is true, if for no other reason than that the future viability of treatment programmes depends on success in reducing the rate of new infections. Yet planning and programme design are often undertaken separately for HIV prevention and HIV treatment. This ignores possible synergies between prevention and treatment.

HIV treatment

The scale-up of antiretroviral treatment represents one of the signal achievements in global health in the last half-century. The introduction of HIV treatment in resource-limited settings is saving lives, reviving entire communities and societies, and preventing households from falling into poverty. However, the current treatment model for HIV may not be sustainable, as millions of new patients begin therapy and as needs for more costly second-line regimens grow over time. Concerted efforts are required to lower the cost of treatment and to generate new diagnostic and therapeutic tools that are specifically designed for clinics in low-income countries.

It will not be possible to achieve ambitious aims for the epidemic in 2031 without ensuring treatment to those who need it. As of December 2008, the majority (58%) of people who were eligible for treatment under international guidelines at the time were still without access. In 2009, drawing on emerging evidence favouring earlier initiation of antiretroviral therapy, WHO revised its treatment guidelines to call on clinicians to start their patients on treatment earlier in the course of HIV infection. This revision, which effectively adds several million individuals to the rolls of those who are medically eligible for treatment, served to substantially reduce actual treatment coverage below the 42% level reported for 2008.

Although the scale-up of treatment programmes has arguably been guided somewhat more by evidence than corresponding efforts to prevent new infections, there remain important design and delivery challenges that threaten the long-term viability of treatment efforts. In particular, treatment programmes should be designed to maximize their efficiency and sustainability.

Although the costs of antiretroviral regimens in low- and middle-income countries have significantly declined, they remain notably more costly than other therapeutic regimens commonly used in resource-limited settings. The average price for a first-line regimen in low-income countries in 2008 – US\$143, a 16% drop over 2007 prices (WHO et al., 2009) – was still more than four times more expensive than drug costs associated with treating a single TB patient. Moreover, unlike TB therapy, which lasts a few months and results in a complete cure, antiretroviral therapy is life-long and cannot cure HIV infection. Especially as countries grapple with a broad range of health priorities – including the growing push to scale up treatment for cancers, heart disease, and other chronic conditions – it will be increasingly vital to lower even further the average cost of treating a patient with HIV.

Unfortunately, many countries appear to be incurring treatment costs that are much higher than they need be. According to a study commissioned by aids2031, there is considerable variation across countries in the prices paid for the same antiretroviral drugs, even among countries of a similar socioeconomic status (Wirtz et al., 2009).

In 2008, all but 2% of patients on antiretroviral therapy in low- and middle-income countries were receiving first-line regimens. As demonstrated by the experience of

Brazil, which has provided free antiretroviral therapy since 1996, the growth over time in demand for second-line regimens is inevitable. While the prices of second-line regimens have fallen somewhat in recent years, they remain several times more costly than first-line regimens (WHO et al., 2009). Sustaining HIV treatment access will require concerted global efforts to lower the prices of second-line regimens.

Second-line regimens may well remain unaffordable in many low-income countries with high HIV prevalence. With competing health priorities, some health systems may decide that it is impossible to deliver second-line regimens through the public sector. Although it is the conclusion of aids2031 that sufficient resources exist to ensure access to high-quality HIV prevention and treatment services over the next generation, prioritizing among competing health needs is the job of national governments and country-level stakeholders, not international technical experts.

Regardless of a country's decision regarding access to second- and third-line drugs, it is evident that selection of the longest-lasting first-line regimen is an urgent necessity. Not only will optimally effective first-line regimens delay or avert the much higher costs associated with second-line drugs, but in settings in which second-line therapy is not available they will help keep patients alive and healthy until future research breakthroughs can deliver additional, more affordable options for resource-limited settings.

According to national treatment monitoring in the United Kingdom, the duration of treatment success varies up to three-fold depending on which first-line regimen is administered (Beck et al., 2008). Unfortunately, clear evidence does not exist regarding the optimal, longest-lasting regimen suitable for use in resource-limited settings. This is a critical research priority to enable programme planners in low-income countries to use limited resources to maximize individual health and longevity.

Recommendations

- *Stakeholders in the HIV response – including developing country governments, international donors, pharmaceutical companies, generic manufacturers, civil society, philanthropic foundations, and multilateral funding and technical agencies – should intensify collaboration to reduce the cost of second- and third-line antiretroviral regimens.*

- *Intensified research attention should focus on identifying the most affordable, longest-lasting antiretroviral regimens for use in resource-limited settings. Universal access to the most effective first-line regimen should become the standard of care in all countries.*
- *All countries should take advantage of the best available prices available for antiretroviral drugs and other HIV commodities, taking advantage of strategic information, such as WHO's AIDS Medicines and Diagnostics Service. International donors, including the Global Fund, should examine funding incentives to encourage recipient governments to choose the most affordable, effective antiretroviral regimen.*

General programmatic principles

Certain approaches – a commitment to evidence-informed action, improved results-based management, sound policy frameworks, and strategic service integration – would benefit all HIV programmes, including HIV prevention, treatment, and impact mitigation interventions.

Invest in operational and translational research

To date, the HIV response has primarily focused on the documentation of programmatic efficacy, with limited attention to evidence-based guidance on optimal strategies for putting validated interventions in place to achieve actual results. Repeatedly, programmatic strategies proven to be efficacious in controlled trials have encountered operational challenges that blunted their effectiveness. Numerous behavioural interventions for HIV prevention, for example, have been validated in controlled trials, but their effectiveness in the field is unclear (Global HIV Prevention Working Group, 2008). Services to prevent mother-to-child transmission sharply reduce the likelihood of transmission to newborns, but operational delays in implementing these strategies have limited their impact in the real world. And while trials have demonstrated antiretroviral therapy to be remarkably effective in preventing or delaying HIV-related morbidity and mortality, declines in actual deaths rates in the real world have often been limited by sub-optimal regimens, poor patient retention rates, and inadequate adherence.

As the goal of programmatic responses is to achieve real results for people, significantly greater research attention is required to the translation of evidence from controlled clinical trials into actual programmes. At the 4th International AIDS Society Conference on Pathogenesis, Treatment and Prevention in 2007 in Australia, hundreds of scientists, programme implementers and advocates joined together in the Sydney Declaration, which called for 10% of all programmatic resources to be earmarked for operations research. This approach is in line with official policies of the Global Fund, which permit up to 10% of each grant to be allocated to operations research; unfortunately, this provision has seldom been exercised in country proposals to the Global Fund.

The Sydney Declaration explained the rationale for its proposed earmark: “Operations research will enable rapid implementation of new technologies to prevent, diagnose, and treat HIV infection, and can help to ensure that health systems are strengthened as a result of scaling-up HIV prevention, treatment, and care . . . An ancillary benefit of integrating research into the overall approach to scale-up in the developing world will be an expanding cadre of health-care workers trained in research methodologies and practice. Such research should not be seen as an additional burden on the various funding bodies or ministries of health but, on the contrary, as the only means by which we can refine our understanding of what is and is not effective.”

It is unclear whether a hard earmark for *each* programme budget is the best approach to building the evidence base for translating research into practice. However, it is clear that substantially greater resources are needed for HIV-related operations research to improve programmatic impact.

Recommendation

- *Significantly greater resources are required for HIV-related operations and translational research to build the evidence base for optimized impact in the course of programmatic scaling-up. Investment in operations research should be regarded by donors and programme implementers as a mandatory cost of doing business.*

Manage programmes for results

Although numerous international guidelines exist for the planning and implementation of specific HIV services, relatively little advice is available to programme managers to enable them to differentiate services that are of acceptable quality from those that are unacceptable.

Consider a few examples of how the poor quality of service delivery can prevent even a well-funded programme from achieving its aims. If a sex worker who seeks HIV counselling encounters social disapproval and hostility, the counselling programme will not achieve its desired ends because the client is unlikely to continue seeking services at the site. When a sexually active adolescent asks her teacher for basic facts about how to avoid HIV infection and is told that abstinence until marriage is the only proven strategy, this young person has not been well served. And when an uninformed treatment educator provides a newly diagnosed individual with erroneous information about the disease process or about available therapeutic options, the worker may have done more harm than good.

Misinformation isn't the only potential problem when it comes to programme quality. According to a compelling body of evidence, counsellors who use client sessions to deliver didactic lectures are much less effective than empathetic counsellors who engage clients in an interactive dialogue that allows counselling to be tailored to the individual's particular needs. To take advantage of the inherent strengths of a client-centred approach, however, counselors need the skills, sensitivity and motivation to engage clients in the types of tailored, in-depth discussions that have been shown to lead to behaviour change.

Development of quality standards has been especially challenging in the HIV prevention field, which often combines multiple so-called "interventions" in a single programme or client encounter. Over the last two years, UNAIDS has convened meeting for international stakeholders to develop a standardized "glossary" of prevention strategies, with the aim of clarifying guidance to countries, encouraging the development of quality standards, and permitting comparison and contrasts in service approaches across geographic settings and populations.

Ensuring adequate quality is further hindered by the minimal or non-existent investment in programme evaluation. As previously noted, many prevention programmes have no clear target outcomes or milestones, have no clearly defined causal pathway or

articulated connection to other prevention services, and collect data only on the most basic process indicators (e.g., number of outreach encounters, number of condoms distributed, etc.). For such poorly planned programmes, it is difficult to know how managers would even begin to define what good quality is. Quality assurance is further undermined by the almost universal absence of rigorous monitoring of programmatic impact – an issue addressed in greater detail in a subsequent chapter on knowledge generation.

By planning programmes with clear outcomes, defined causal pathways, and programmatic milestones, programme managers and implementers can better ensure quality in their service delivery. To strengthen the capacity for meaningful quality control, greater investments are needed in operational and translational research to identify the characteristics of successful programmes and to guide the development of rigorous quality criteria. For services that are susceptible to standardization, the articulation of quality standards that are globally or regionally recognized and promoted is urgently needed.

Benefiting from this stronger evidence base, programme managers should universally implement clear, transparent quality control protocols and processes for their programmes. Staff should be evaluated based on their adherence to these quality criteria, and incentives should be put in place to encourage service quality. As a recent analytical exercise commissioned by UNAIDS advises, improving the quality of HIV prevention programming involves a continuous loop of inspection, quality assurance, continuous quality improvement, and total quality management. In short, quality control should continually inform service delivery and adaptation of programmatic efforts.

Recommendations

- *International technical agencies, programme implementers, and national governments should collaborate in the development of meaningful quality criteria for standard HIV prevention and treatment interventions.*
- *Donors, national governments, technical agencies and academic institutions should collaborate in building managerial expertise and capacity among programme managers in low- and middle-income countries.*
- *All programmes should implement multi-component, well-defined quality assurance protocols that ensure a continuous feedback of quality control information. Programme managers should use quality control information to*

inform the oversight, revision and adaptation of programme design and administration.

Sound policy frameworks

Although the PRWG specifically focused on programmatic issues, PRWG-sponsored consultations consistently reiterated the difficulties associated with implementing and sustaining robust programmatic responses in the context of unsound policy frameworks. In particular, it was noted that institutionalized discrimination against key populations reinforced stigma and social marginalization, undermining evidence-informed efforts to deliver essential services to men who have sex with men, people who inject drugs, and sex workers. In addition, the lack of strong, well-enforced laws prohibiting HIV-based discrimination often deters individuals from being tested for HIV or from accessing essential services.

The importance of a rights-based response is not a new idea. However, it is plain that significantly intensified action is needed to prevent problematic policy frameworks from undermining programmatic initiatives.

Countries that adopt policy frameworks that are not grounded in human rights and available evidence must perceive that they will be penalized in the court of international public opinion and potentially lose important international benefits. Several steps in this direction have recently been taken. Although many countries have long had national policies in place restricting the entry of HIV-positive foreigners, the high-profile report of the International Task Team on HIV-Related Travel Restrictions and the open opposition by such leaders as the UN Secretary-General to such laws appear to be having an effect. The U.S. government, for example, recently repealed its longstanding HIV immigration ban, as have the Czech Republic, South Korea, China and Namibia. International opposition also appears to have played a critical role in slowing the momentum in Uganda for adoption of a punitive legislation proposal that would have imposed the death penalty for certain same-sex acts.

As the international consensus in support of harm reduction programmes has intensified in recent years, more countries have stepped forward to eliminate restrictions on

evidence-based prevention strategies and to bring harm reduction services to scale. Similarly, international collaboration helped broker the first-ever national summit in Pakistan on HIV and sex work, leading to the launch of the country's first plan to address HIV-related needs of sex workers.

Unfortunately, many countries retain punitive laws that undermine rights-based approaches to HIV. In addition to laws that burden most-at-risk populations, many national legal and policy frameworks institutionalize second-class status for women and girls, failing to recognize their rights to property or to take action to combat sexual and gender-based violence. Dozens of countries have also used HIV-specific statutes or broader laws to prosecute people living with HIV for alleged transmission of the virus, an approach that reinforces popular conceptions of HIV-positive people as vectors of transmission rather than fellow citizens who merit compassion and support.

Recommendations

- *Countries should remove all punitive laws and policy frameworks that stigmatize or marginalize key populations and/or impede effective service utilization. In particular, countries should remove all legal penalties on sexual contact between members of the same sex, ensure unimpeded access to evidence-informed health and harm reduction services for drug users, and eliminate legal prohibitions on the sale or purchase of sex, complemented by measures to ensure meaningful economic alternatives to sex work.*
- *All countries should have in place clear, well-enforced laws that prohibit HIV-based discrimination.*
- *Laws that specifically criminalize HIV exposure or transmission should be repealed, and prosecutors should avoid using broad-based statutes to prosecute people living with HIV on comparable grounds.*
- *The international community should become far more vocal and assertive regarding national laws and practices that undermine an evidence-informed, rights-based approach to HIV. In particular, countries should be especially vigilant about holding regional partners accountable for national policy frameworks.*
- *Donors should explore meaningful strategies to build incentives for rights-based approaches into funding formulae and approaches.*

Service integration and mainstreaming

To date, possible synergies between HIV and other service systems remain inadequately captured. Intensified efforts should focus on integrating HIV with other complementary service systems, including but not limited to TB and sexual and reproductive health services. For example, more than 40 countries now have coordinating bodies for management of HIV-TB co-infection (WHO et al., 2009), but only 16% of notified TB cases, (37% in sub-Saharan Africa) knew their HIV status in 2007 (WHO et al., 2009). Closer linkages between HIV and other key service systems would enhance care coordination, accelerate service scale-up, and contribute to health care strengthening.

However, some degree of reflection is warranted in the current push to mainstream HIV services within broader health systems. While this approach could benefit service scale-up and HIV management in settings where the epidemic is broadly generalized, it may be counterproductive for certain populations or in settings where HIV is heavily concentrated in marginalized communities. As a recent analysis by the American Foundation for AIDS Research documented, extensive evidence suggests that certain populations have not historically received non-discriminatory, respectful, high-quality services from mainstream service systems (amfAR, 2010). For such population – including men who have sex with men, people who inject drugs, and sex workers –, a continued investment in tailored service options should be coupled with a longer-term effort to sensitize health care providers to the needs of these populations and to increase health system capacity to provide appropriate care. The well-documented successes of the Avahan India AIDS Initiative in scaling up HIV services for marginalized populations underscores the potential public health benefits of using specifically tailored, community-centred service systems to accelerate service expansion.

Recommendations

- *Programme planners and implementers should intensify linkages between HIV and complementary service systems, with particular focus on TB service settings, sexual and reproductive health services, and social protection systems.*

- *For marginalized populations who have not historically been well-served by mainstream service systems, continued investment will be needed in specially tailored clinics and other service options, along with capacity-building interventions to equip mainstream health care channels to provide appropriate services to marginalized communities.*
- *With a common goal of eliminating mother-to-child HIV transmission, stakeholders should intensify linkages and coordination between antenatal services, interventions to prevent vertical transmission, and the delivery of care and support before, during and after birth.*

A people-centered approach

One of the unique characteristics of the HIV response has been to place people at the centre of development practice. As a result of this approach, the HIV response has benefited from unmatched grassroots energy and community-generated wisdom and innovation.

Unfortunately, certain trends – including the professionalization of HIV services and the increasing priority placed on technical solutions to difficult, multi-dimensional challenges – endangers the longstanding commitment of the response to a people-centred approach. In other respects, the rhetoric of the HIV movement has never translated into actual community ownership and control over local responses, underscoring the need for additional steps to place people at the centre of HIV programmatic efforts in the coming years.

Promote community-level innovation and leadership

Some of the most enduring programmatic successes in the history of the epidemic have emerged not from peer-reviewed journals, public health agencies, or consultations of technical experts, but rather from the communities most affected by HIV. In the early stages of the epidemic – even before epidemiologists had definitively characterized the modes of HIV transmission – urban gay communities in high-income countries were undertaking grassroots efforts to promote “safe sex.” In the US, the emergence of innovative community mobilization strategies in the gay community – reflected, for

example, in the risqué but highly effective “Safer Sex Comix” produced by New York City’s Gay Men’s Health Crisis – predated the development of public health funding streams to support HIV prevention for gay and bisexual men.

This same pattern has been evident in regions all across the world. For example, the emergence in Uganda of a robust civil society movement to combat HIV – universally regarded as a critical element in that country’s successful effort to lower HIV infection rates – was not tied to government mandate but rather to the courageous and creative action on the part of such people as the founders of The AIDS Service Organization (TASO). In many parts of the world, current and former drug users played critical roles in the establishment and scale-up of life-saving harm reduction programmes. Likewise, it is probable that the worldwide expansion of treatment access would never have occurred without the relentless efforts of treatment activists.

While many of the PRWG recommendations point towards a more evidence-driven, strategic approach to programme planning and design, that should not be taken as a call for a more technocratic, top-down process. HIV programmes need to ensure that communities have the resources they need to innovate and their insights need to serve as a cornerstone of programme design. As just one example, participatory research methods have a potentially critical role to play in understanding key social drivers of the epidemic and in identifying impediments to programmatic success.

To ensure long-term success on HIV, it is important both to mobilize the best available technical resources and to ensure sustained grassroots energy and creativity. Although a number of mechanisms have emerged to “engage” affected communities, many trends in the HIV community serve to marginalize rather than empower affected communities. As HIV programming has become increasingly professionalized, the value accorded to community leadership is at risk of being diminished. To reach the vision of a transformed fight against HIV by 2031, it will be necessary to harness, strengthen and sustain the passion, intelligence and commitment that has characterized grassroots leadership on HIV to date. Without a true partnership between governments, affected communities, and diverse non-governmental actors, programmes will not be optimally effective, their reach will be inadequate, and any gains they achieve are unlikely to be maintained over time.

Recommendations

- *Community ownership and innovation must be central features of the HIV programmatic response over the next generation. Programmatic efforts must not only work to “involve” affected communities, but to empower them to lead national responses.*
- *The impact of programmatic and policy initiatives on the social capital of affected communities should be a key focus of programme monitoring and evaluation.*

Build on the leadership of people living with HIV

People living with HIV have the greatest stake in the future of the HIV programmatic response. They are also ideally positioned to lead HIV programmatic efforts and deliver essential services and support. Not only are people living with HIV uniquely qualified to provide information and support to their peers, and they are more likely to be better informed by a personal and nuanced understanding of the challenges that these individuals face.

Gathered at the Paris AIDS Summit in 1994, 42 countries formally recognized the Greater Involvement of People Living with AIDS (GIPA) as a foundation principle of sound national HIV programmes. While the GIPA declaration reflected the HIV community’s laudable commitment to the autonomy and dignity of people living with the disease, it has limits as a meaningful strategy to promote HIV leadership for a sustainable fight against the epidemic. After all, policy makers or programme implementers may “involve” people living with HIV only episodically, or involvement may never rise to the position of leadership or decision-making authority.

The absence of people living with HIV in programmatic efforts is most notable in the prevention field. This is unfortunate, in that individuals intimately understand the factors and circumstances that contribute to risky behaviour and the impediments that people face in avoiding transmission. For those who are uninfected, people living with HIV can also be a compelling source of information and support for risk reduction.

Recommendation

- *HIV programmes should undertake the massive hiring of people living with HIV.*

Strategically invest in anti-stigma programming

Many, if not most, national strategic HIV plans recognize the harmful role of stigma in undermining national responses. According to a 2010 survey by the NGO delegation of the UNAIDS Programme Coordinating Board of more than 1,000 civil society informants around the world, stigma and discrimination are common impediments to service utilization, with more than half of those surveyed indicating that they had personally been deterred from seeing services due to the fear of stigma.

Unfortunately, programmatic efforts to minimize stigma are often weak, haphazardly planned, and unevaluated. The evidence base for action to fight HIV stigma remains only partially developed, and many national plans lack meaningful processes, programmes or targets to guide anti-stigma programming. In addition, HIV stakeholders have frequently failed to support an inclusive, robust, results-oriented social dialogue to understand and address the sources of stigma in specific national and local contexts.

Recommendation

- *All national governments, donors and multilateral institutions should have and report dedicated budgets for anti-stigma and anti-discrimination programming and take steps to integrate these initiatives in every aspect of AIDS programming. Dedicated managers should be allocated to such efforts, and all national HIV strategies should articulate specific strategies, targets and milestones for these efforts.*
- *Research programmes are needed to build the evidence base for effective, sustainable anti-stigma and anti-discrimination programmes. Anti-stigma programmes, in particular, should specifically focus on young people, who represent a badly under-utilized resource for reducing stigma and discrimination. Special efforts are needed to capitalize on emerging*

communications technologies and social networking mechanisms for the delivery of youth-focused programming.

Sustain a robust response

Given that less than US\$300 million was spent worldwide on HIV programmes in low- and middle-income countries as recently as 1996, it is understandable that the initial HIV programmatic push primarily focused on getting programmes up and running. For many country programmes, however, it is unclear whether they can be sustained over the next generation, as many are primarily administered and driven by external partners. In the absence of concerted action to build national ownership and strengthen national infrastructure, it is doubtful that many of these programmes can survive, and those that manage to survive are unlikely to be optimally effective. In the coming years, preparing for sustainability must become at least as important as scaling-up the HIV programmatic response.

Ensure strong and courageous political leadership

To sustain a robust and effective response over the next generation, political leaders at all levels will need to remain engaged in this fight. In hyper-endemic settings, where the epidemic threatens the very future of communities, the need for political leadership is plain. However, low-level or concentrated epidemics pose a distinct leadership challenge, given the sometimes-common tendency of political elites to accord secondary status to problems that primarily affect society's most marginalized. A central feature of the HIV movement has been the commitment to leave no individual or community behind, underscoring the need for vigilance, leadership and social solidarity in all countries over the next generation.

HIV presents a particular political challenge. Typically, political leaders think in three- or five-year spans that coincide with election cycles. However, an effective response to HIV will require a decades-long commitment. Many of the strategies that are needed to alter the epidemic's trajectory in the coming years will not achieve immediate results. True leadership on HIV demands the willingness of political leaders to support actions that extend beyond their term in office.

To date, much of the focus of HIV advocacy has been on senior-most political leaders. Their engagement will remain central in the coming years, but sustaining the response between now and 2031 will demand the energetic involvement of other leadership cadres, including parliamentarians and opinion leaders. In particular, it is important for diverse leaders to step forward to oppose punitive laws that undermine HIV responses and to argue for sound, rights-based programmes and policies.

Another important test of political leadership is the degree to which national resources are devoted to HIV programmes. As the aids2031 Finance Working Group has found, while the fiscal space for self-financing varies widely according to national resources and HIV prevalence, all countries have the ability to finance a portion of their response.

While national leadership will remain vital, global solidarity will also be critical to sustaining an effective response over the next generation. UNAIDS Executive Director Michel Sidibé has called for the commitment for universal access to extended to 2015 to align with the deadline for the Millennium Development Goals.

Recommendations

- *The response to HIV must be recognized as one of the preeminent political priorities in all high-prevalence countries.*
- *Political leaders in countries with low-level and concentrated epidemics need to display the courage and foresight needed to address the needs of the marginalized populations most affected by HIV.*
- *Commensurate with the long-term threat posed by the epidemic, the response to HIV should remain near the top of the global political agenda.*

Implement a new “code of conduct” for the HIV response

The scaling-up of HIV services to this point has primarily been driven by a model that is not sustainable. Too often, the model for HIV programming has been to allow outsiders to do *for* the developing country, rather than to empower countries and communities to lead their own responses and to develop sustainable capacity to administer programmes on their own. International donors rather than national decision-makers have often

determined the shape, scope and strategic focus of programmatic responses. Major academic centres and international non-governmental organizations have frequently staffed HIV programmes, often draining talented staff from national public sectors by offering superior salaries and benefits.

While this approach was arguably necessary to enable programmes to get off the ground, it doesn't represent a feasible, long-term strategy. HIV funding on its own, of course, cannot overcome the extraordinary economic and human resource disparities that disadvantage the countries the most heavily affected by the HIV epidemic. However, with careful planning, new ways of doing business, and the commitment of key stakeholders, it is possible to turn a steadily increasing share of HIV programmatic efforts over to the countries and communities that are in the epidemic's path. This will not only be a fairer result, but it is likely to make programmes more effective, promote more efficient use of resources, and ensure the long-term sustainability of the generations-long challenge posed by the epidemic.

Although the image of the small, indigenous community organization delivering essential prevention, treatment and care at the village level is inspiring, it is typically not the driving force in HIV programming. Rather, a discussion of key players in the delivery of HIV services must start with large international non-governmental organizations, academic medical and research centres, and global charities. HIV assistance is big business, but it sometimes lacks the results-oriented and efficiency-promoting ethos of successful enterprises.

The U.S. Agency for International Development – by far the largest bilateral development funder of HIV services – offers an excellent illustration of massive institutional arrangements that typify HIV service delivery. USAID primarily relies on large non-governmental organizations to undertake its work in low- and middle-income countries. The vast majority of the NGOs funded by USAID to deliver HIV programmes are U.S.-based organizations, and they account for the large majority of the agency's HIV-related funding. Certain inefficiencies are inherent in this approach, as a portion of such funding inevitably remains in the U.S. to support the extensive bureaucracies these organizations maintain. Moreover, it is likely that many, if not most, of the individuals who lead USAID-supported programmes in developing countries are American citizens who are paid salaries considerably higher than those that prevail locally. While international NGOs will and should have an important role to play in the future of HIV

programming, the overwhelmingly reliance on foreign oversight, administration and programme management is not conducive to a sustainable effort that encourages and renews indigenous ownership of the HIV challenge. Donors sometimes require subcontracting NGOs to engage in capacity-building initiatives in connection with their HIV programming, and internationally driven efforts have resulted in the training of many tens of thousands of people in national health systems, public sector agencies, and community organizations (U.S. Global AIDS Coordinator, 2010). At the end of the day, however, few international NGOs leave the field, or they do so only when their contract expires, often departing with little, if anything, in place to sustain programmes. The centrality of internationally administered programmes also increases the risk that a shift in donor priorities or preferences will result in the termination of programmes on which local communities depend.

A new approach is urgently needed to build the professional skills, managerial expertise, and analytical aptitude in the countries and communities that will be grappling first-hand with the epidemic for decades to come. Donors, developing country governments, and multilateral agencies should enforce a “new compact” for HIV programmes that specifically mandate the transfer of authority to country- and community-level actors. Contracts for the delivery of HIV programmes in low- and middle-income countries should be time-limited, and they should include clear, unambiguous milestones for building capacity. Where appropriate, this would include building physical infrastructure and providing on-the-job training and professional development for in-country staff to acquire the skills and experience they will need to administer the programme for the long run. Each NGO contract should include an extensive handover period, governed by specific milestones, during which day-to-day management of the programme is steadily transitioned to in-country staff. NGOs should be made to understand that their ability to compete for future contracts from the donor agencies will depend on a strong track record of building sustainable capacity in countries. And donors need to commit to a continuation of funding for successful, well-managed programmes after the subcontracting NGO leaves, with the duration and amount of funding dependent on the specific programme and on individual country- and community-level needs.

In reality, there is something of a trade-off between scaling up and building capacity. Building capacity as programmes are implemented and expanded will inevitably reduce the pace of scale-up to some degree. For a disease for which the human stakes are so high, an open discussion of this trade-off is difficult. But avoiding this topic because it

causes discomfort poses a real risk that the unprecedented mobilization of global resources for HIV will build a service system that will collapse in future years as donor priorities change. The sustainability of programmes to combat the leading cause of death of reproductive-age women worldwide should not depend on the global attention span. There is no “right” answer to the proper balance between capacity-building and programmatic scale-up, pointing to the need for an open discussion within the HIV community and among leading donors about strategies to accelerate scale-up and create sustainable capacity simultaneously.

Recommendations

- *All international NGOs with contracts to deliver HIV services in low- and middle-income countries should be required to build capacity and transfer over time ownership and operation of programmes to local community control. Specific milestones for capacity building and local control should be built into NGO contracts, and the track record of NGOs in capacity-building and transitioning to local ownership should be heavily weighted in the ability of NGOs to compete successfully for future contracts.*
- *Donors should commit to continual funding for a reasonable period of time for well-functioning programmes that have been transitioned to local control.*

Develop a new generation of leaders

HIV programmes are often missing a golden opportunity to lay the groundwork for sustainability by failing to nurture a new generation of HIV leaders. With many programmes grounded in an emergency mentality as a result of the immediate devastation wrought by the epidemic, time spent on professional development of young people may be regarded as time wasted. The potential future leadership deficit resulting from this approach is compounded by the high rate of burnout experienced among leaders of many HIV programmes.

Young people are hardly missing from HIV programmes. On the contrary, HIV programmes are world leaders in engaging and mobilizing young people. Too often, however, HIV programmes are conceptualized by older adults, who may inadvertently project their own, possibly faulty recollection of their own youth on to the target

population which may have decidedly different values, needs and life expectations. As one analytical literature review commissioned by aids2031 found, many HIV prevention programmes devised by older adults are premised on images of young people as either powerless “victims” who need to be protected, or reckless “risk-takers” who perceive no stake in the future (Chandler, 2009). Although youth-focused programmes often use young people as peer outreach workers, these young people may have limited input into programmatic development or oversight. Likewise, many meetings in the HIV field go to great efforts to include one or more young people as speakers or as members of advisory groups, but the degree to which such efforts are contributing to development of sustainable leadership is altogether unclear. Like most other fields, HIV programmes continue to be led primarily by middle-aged or older adults.

To ensure that HIV programmes have the well-prepared leaders they need to thrive in future decades, focused efforts should be undertaken to cultivate, develop and train a new generation of HIV leaders. In 2009, aids2031 convened a global Young Leaders Summit to allow young people themselves to recommend action steps to promote vibrant youth leadership in HIV programming. The young people at the summit endorsed a “5% for the Future Campaign”, calling for at least 5% of donor contributions to be allocated to youth-led organizations as a strategy to build sustainable HIV leadership and encourage more youth-relevant HIV programmes. They also recommended the establishment of a Young Leadership Mentorship Hub to enable young leaders to exchange ideas with, and learn from, more established leaders, including decision-makers in the media and in the HIV policy field.

Recommendations

- *The priority accorded professional and leadership development in community organizations delivering HIV services should be significantly elevated.*
- *Significant additional funding is warranted for youth-led HIV organizations.*
- *International donors should support establishment of a Youth Leadership Mentorship Hub to enable young leaders to exchange ideas with, and learn from, more established leaders.*

Expand the HIV coalition

The HIV movement has truly made history, bringing unprecedented passion and savvy to the quest to improve health outcomes in low- and middle-income countries. Yet despite these remarkable achievements, the HIV movement remains much more insular than it should be – and more insular than will be required to sustain a robust and effective response between now and 2031.

The AIDS field itself will need to become less insular and redouble efforts to forge broad, vibrant coalitions in support of a strong and durable HIV response. To broaden the HIV coalition, a more developed notion of reciprocity will need to be adopted by the HIV community. To engage new partners in the HIV response, HIV stakeholders will need to become reliable partners for other groups and constituencies.

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