

Executive Summary: Opportunities for Action and Impact to Address HIV and AIDS in Adolescents

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Introduction: The global HIV epidemic in adolescents is not controlled, and this group has not received sufficient attention in programming and research efforts addressing HIV prevention, treatment, and care.

Methods: A global technical consultation on adolescents and HIV addressing services and research gaps was convened by United Nations Children's Fund and the London School of Hygiene and Tropical Medicine in July 2013. Proceedings from this meeting are presented in this issue of the Supplement.

Results: Several reviews highlight poor levels of coverage of critical HIV prevention, treatment, and care interventions for adolescents, disparities in HIV prevalence among adolescent girls, and low-risk perceptions associated with risk behaviors among key risk groups. Others underscore the significance of clear national targets and strengthening data, government involvement, enhanced systems capacity and policy, engagement of community and adolescent social networks, and of mobile and internet technologies to the success of interventions for adolescents. Finally, reviews identified several efficacious interventions for adults that could benefit from operational research to inform optimizing implementation in adolescents and how to do so with maximal cost efficiency and impact on the epidemic.

Conclusions: Addressing the adolescent gap in the response to the HIV epidemic is essential to a more sustainable and effective response and is critical to overall adolescent health and well-being. The global community has the means and the responsibility to put measures in place to make AIDS-free survival the reality for children in this second decade of life.

Key Words: HIV, AIDS, adolescents, prevention, care, treatment

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INTRODUCTION: THE ADOLESCENT GAP

This series has been developed under the leadership of the United Nations Children's Fund (UNICEF) and the US National Institutes of Health (NIH) in collaboration with multiple technical leaders in the area of adolescent programming. The series presents a collection of reviews on adolescents examining current evidence and experience from programs to highlight how to improve HIV-specific outcomes. Findings in the articles were presented in a global technical consultation on adolescents and HIV convened by UNICEF and the London School of Hygiene and Tropical Medicine in London in July 2013. The adolescent HIV epidemic presents complex interactions of multiple determinants including individual risky behavior and vulnerabilities related to biologic, economic, social, and cultural factors. To achieve an AIDS-free generation, HIV and AIDS responses must take these factors into consideration while focusing on scaling up proven HIV-specific interventions likely to achieve the highest impact on HIV prevention, morbidity, and mortality. This requires aligning implementation of the high-impact interventions with other development responses that enhance synergies, including those aimed at strengthening education, achieving gender equality, ending gender-based violence, protecting human rights, and increasing social protection for the most vulnerable.

Four main concerns captured in this series served as primary motivation for this work:

1. Adolescents living with HIV are more likely to die from AIDS than any other age group: Available data indicate that HIV-related deaths are increasing in adolescents whereas decreasing in all other age groups. This indicates a gap in attention to adolescents in treatment scale-up plans.^{1,2}
2. The epidemic in adolescents is not controlled: Despite the positive change seen from a global perspective in terms of a significant reduction in new HIV infections in adolescents aged 10–19 years between 2001 and 2012, this progress has been uneven. In most high-burden countries, there are still twice as many new HIV infections in the adolescent age group compared with the deaths; therefore, in these countries, the epidemic in adolescents is still growing.^{2,3} Given this reality, we are not on track to achieve an AIDS-free generation.

3. National resource allocation to address HIV in adolescents is neither optimal nor efficient: The growing number of AIDS deaths in adolescents and the fact that many countries continue to face a growing epidemic in adolescents indicates that the investments currently made to respond to HIV in adolescents are not adequate. There are multiple opportunities for greater effectiveness and efficiency using a result-focused and human rights–based investment approach that scales up proven high-impact interventions and ensures access to these among adolescents.⁴
4. Most national responses are not tracking the health status or the HIV epidemic and outcomes in adolescents aged 10–19 years, leading to missed opportunities for early intervention and more effective planning and support for this age group: The lack of disaggregated data in national health systems and HIV program monitoring reports is limiting ability of national program and decision makers to scale up of effective responses for adolescents.^{2,3,5,6}

BEYOND HIV: THE OPPORTUNITY OF ADOLESCENCE

The second decade of life, adolescence, is a critical period of life because it represents a time of both vulnerability and potential. Adolescence is a time of significant physical, psychological, social, and emotional growth in a child's life. Healthy transition through this period is greatly influenced by the support provided from family, friends, schools, and the community.⁷ There are an estimated 1.2 billion adolescents globally. Adolescents aged 10–19 years represent between 14% of the population in Eastern Europe and Central Asia and close to 25% in sub-Saharan Africa.⁸ As countries deliberate on plans to strengthen and sustain development gains in the medium to long-term, clearly, adolescent health, education, protection, and development should be central to the discussions if countries are to have the basic potential in skilled and productive human capital required to realize these goals. Adolescents will act in the roles for which today's investments have prepared them, including leadership in the areas of education and health, community, technology, trade, security, justice, and government. This series presents information that is important not only for improving adolescent HIV-specific program outcomes but also for outlining program considerations that may improve national responses for the overall health and development of adolescents.

THE HIV EPIDEMIC IN ADOLESCENTS—A REFLECTION OF THE IMPACT OF INEQUALITY ON SOCIETY'S YOUNGEST AND MOST VULNERABLE

Three articles in this supplement provide a detailed perspective on the HIV epidemic in adolescents. In addition to an overview illustrating the persistent disparity of HIV infections among adolescent girls aged 10–19 years, Idele

et al describe progress in coverage with interventions such as HIV testing and counseling, condoms, comprehensive knowledge and trends in behavior change, and HIV care and treatment for adolescents. This article, a report card on decades of investment, describes slow progress and poor levels of coverage of high-impact HIV prevention, treatment, and care interventions for adolescents aged 15–19 years, even among those most vulnerable and at greatest risk.³ The article also highlights the lack of data on adolescents aged 10–14 years. This is a concern, given the significant proportion of older youth who were sexually active before age 15 years in several high HIV burden countries of sub-Saharan Africa and the low age of initiation of injecting drug use, alongside the increasing HIV prevalence among people who use drugs in countries in Asia and Eastern Europe.³

Hardee et al⁹ evaluate further the high rates of HIV infection among adolescent girls and present evidence on what works to address the risks. They acknowledge that some studies show increased psychosocial and biologic vulnerability to HIV infection in adolescent girls and note how early sexual debut exacerbates their risk of infection.¹⁰ They argue that the core problem affecting adolescent girls is that of structural inequality and that HIV simply makes this inequality more visible. Given the multitude of potential co-occurring factors (eg, cervical ectopy, sexually transmitted infections, vaginal hygiene practices, and so on) that could be at play in such vulnerability,^{10,11} more research is needed to confirm the nature and individual contributions of any associations and the risk of HIV acquisition. They propose a focus on 4 key areas to address this persistent pattern and the underlying vulnerability of adolescent girls: education (attainment and quality, including sexuality education), protection (better legislation and systems that address harm reduction and gender-based violence that are more responsive to adolescents), social norm change (increase demand for effective health and preventive services among adolescents and in the community and address norms that reinforce gender inequality), and stronger families (strengthened programs to enable families to provide the support and safety net needed by their adolescents).⁹

Using data from a review of the HIV epidemic in young key populations in Asia, Schunter et al describe the experience of adolescents and young adults living on the margins of society, very often rejected, exploited, insufficiently addressed in the HIV response, and unprepared for the risks that they encounter. They find that sexual violence, low knowledge, poverty, deprivation, and young age are all associated with increased risk of HIV infection and high-risk behavior in key populations.⁶ Low-risk perception emerged in this review as a key factor associated with risk in all key population groups. It was associated with low or nonuse of condoms and low use of HIV testing and counseling services, with younger key populations more likely to report such poor use. This review recommends greater investment to address key structural factors contributing to risk of HIV in adolescent key populations, including stronger protective legislation and enforcement to prevent human trafficking and entry of adolescent girls into the sex industry, better quality of sexuality and health education for children and

adolescents in school to take advantage of the relatively high enrollment rates in primary schools across Asia, and the use of more innovative approaches to improve knowledge and risk perceptions in adolescent and youth through the use of the Internet and mobile technology.⁶

EVIDENCE FOR ACTION: A CLEARER PATH TO ACTION FOR ADOLESCENTS, BUT MANY UNANSWERED QUESTIONS PERSIST

Often, the lack of clarity around what makes up an effective HIV program for adolescents and how to implement effective interventions so they can be accessible to adolescents becomes a major barrier to addressing the challenges highlighted throughout this article. The articles in this series aim to provide answers to these questions and further clarity on how to address these challenges. Among these, a systematic review by Mavedzenge et al notes that a number of interventions designed primarily for adults have high-quality evidence illustrating their potential efficacy in reducing HIV transmission, morbidity, and mortality. The review recommends that these interventions be prioritized in adolescent HIV programming. The review also confirms the effectiveness of in-school interventions and some targeted interventions in geographically defined communities at changing reported high-risk behaviors related to HIV. Based on this review, the authors recommend that programs prioritize the expansion of opportunities for adolescents to access HIV testing and counseling, as well as interventions proven to reduce HIV transmission, AIDS-related morbidity and mortality. These include condoms, provision of antiretroviral drugs for the prevention of mother-to-child transmission of HIV, antiretroviral therapy, provision of sterile injecting equipment to people who inject drugs, and voluntary medical male circumcision in high HIV prevalence and low circumcision prevalence settings.¹² The review notes the evidence of potential efficacy for oral pre-exposure prophylaxis among heterosexual couples and men who have sex with men, and behavior change interventions among people who inject drugs and men who have sex with men, and recommends that these 2 interventions be scaled up in adolescents. The review also notes the importance of structural barriers, such as laws, policies, norms and attitudes, poverty and income inequality, which affect the delivery and uptake of these effective HIV-specific interventions.

This systematic review did not yield any conclusive evidence on how effective interventions can be delivered to adolescents to yield optimal impact on HIV outcomes. To address this gap in knowledge, several additional articles were commissioned to document the experience and lessons learned from the scale up and implementation of strategic interventions reaching adolescents. The reviews present lessons from experiences in the introduction and scale up of voluntary medical male circumcision,¹³ contraceptive services,¹⁴ human papilloma virus vaccination,¹⁵ and sexual and intimate partner violence prevention.¹⁶ They highlight a number of important program elements to guide effective implementation for adolescents:

1. Agreement on clear national targets for adolescents aged 10–19 years to guide planning and monitoring of progress.

2. Government engagement and leadership in implementation.
3. Strengthening systems and capacity, including both service delivery and coordination involving multiple sectors, to ensure successful scale up, efficiency, and sustainability.
4. A clear and supportive policy and guidelines framework, empowering actors with the authority to address implementation priorities for adolescents and to enable providers to better address the unique needs of this younger population.
5. Bundling of the intervention with other health and social development interventions relevant to the community and the adolescents to maximize impact.
6. The importance of planning for demand creation and service delivery, optimizing platforms (particularly schools), and community approaches that offer the greatest opportunity for wide and sustained reach of adolescents.
7. Strengthening data for advocacy, decision making, and program improvement, including appropriate age disaggregated monitoring and evaluation and research involving adolescents aged 10–19 years.
8. Engagement of community structures and adolescent social networks to support effective mobilization and build new, more accepting norms around the interventions and outcomes of interest.

A special commentary on “Innovations” examines the theme of social networks even further. This article by McClure et al¹⁷ describes the unique potential for change offered from the combination of the high use of mobile and Internet technologies by adolescents and the high degree of interpersonal social interaction that is characteristic in this age group. This article describes innovations as including both new technologies and application of new ideas to optimize community and audience engagement, program delivery, scale and quality, and to improve results. The authors examine research and interviews with a wide array of actors reaching adolescents to identify lessons in the application of innovation and technology to address HIV in adolescents.

Although the collection of articles offers many answers to the questions on what needs to be performed and how this can be performed to improve results in adolescents, many important questions remain, particularly in relation to specific interventions and their delivery. In the absence of adolescent-specific safety and effectiveness data of the high-impact interventions recommended in the systematic review by Mavedzenge et al¹² and given challenges noted in terms of adherence and retention of younger people even within key trials, the impact of these interventions in adolescents in less controlled operational settings is still unclear. Furthermore, although there is evidence to indicate the potential for improved reach of adolescents through community-based approaches, more work needs to be performed to assess the feasibility of implementing and sustaining these approaches at scale in resource-limited settings. Questions such as these and the role of bridging licensure studies and demonstration projects in improving adolescent access to effective interventions are presented in the discussion of operational research on HIV and adolescents by Kapogiannis et al.¹⁸

THE IMPACT OF IMPROVED ACTION ON ADOLESCENTS

At the core of the discussions in this supplement are the questions: what will this kind of response for adolescents deliver and at what cost? A final article in this series looked at these 2 questions. The modeling article by Stover et al examines the UNAIDS HIV Investment Framework through an adolescent lens.⁴ The HIV Investment Framework defines the 3 key elements of an effective comprehensive HIV program: the basic programs (proven high-impact interventions to reduce transmission risk, morbidity, and mortality), critical enablers including legislation, policy, and community mobilization that facilitate uptake and delivery of the high-impact interventions by populations in greatest need, and the development synergies or areas of investment outside HIV such as reproductive health, education, violence prevention, employment, and social protection, which enhance the impact of HIV-specific interventions and reduce vulnerability in at-risk populations.¹⁹ Stover et al ask the question of what impact the Investment Framework approach will have on HIV outcomes in adolescents from different epidemic settings and the implications of this approach for the cost of effective adolescent HIV programming. The article confirms that this holistic human rights-based approach could avert 2 million new HIV infections by 2020, as well as over 40,000 AIDS-related deaths in adolescents between 2012 and 2020. This represents a noteworthy departure from the current trends in new adolescent infections and AIDS-related mortality presented in the article by Idele et al,³ and these findings present information for serious consideration by decision makers at the global and national level. Furthermore, these projected improvements in progress on adolescent HIV are contingent on a nearly 50% increase in the investment for this evidence-informed approach to adolescent HIV programming between 2012 and 2014. Delayed action, lower investment, and inadequate response for adolescents, as demonstrated by the current programs, will result in far fewer infections averted in children in the second decade of life and in continuing rise of preventable AIDS deaths in adolescents.

CONCLUSIONS

Taken together, the articles in this series illustrate that better results for adolescents can be achieved with a more focused adolescent-sensitive response. We have the basic evidence to guide our action, which is clear and makes sense from an epidemiological, a human rights, and a development perspective; this action will save lives.

The response to HIV and AIDS in adolescents must be built on the principles that have been central pillars to the success seen in the global response to date:

1. Respect for human rights, dignity, and equality but particularly the right to access life-saving therapies and interventions;
2. Engagement and empowerment of people living with and communities affected by HIV to ensure relevance and legitimacy of the supported priorities;

3. Strengthening the evidence base and insuring use to stimulate continued improvement in program effectiveness, efficiency, and impact; and
4. National leadership and ownership of this response.

Although commitment to these principles has been clearly demonstrated in the global AIDS response, particularly to adults and infants to date, this series demonstrates that adolescents, children in the second decade of life, have not received sufficient attention. Addressing the adolescent gap in the response is not only an essential element of a more sustainable and effective HIV response, but it is also critical to overall adolescent health and well being because adolescents too have the right to survive and thrive free of AIDS. The global community has the means and thus the responsibility to put measures in place to make AIDS-free survival, the reality for children in this second decade of life. It is time to act.

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