Commentary: Innovations in Programming for HIV Among Adolescents: Towards an AIDS-Free Generation

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Invention is the talent of youth, as judgment is of age.
—Jonathan Swift

In the effort to halt and reverse the spread of HIV and AIDS among adolescents, public health and medical experts, moral and political authorities across the globe have implemented a combination of interventions. An imperative exists for such a multisectoral approach: Despite impressive progress toward reducing the HIV and AIDS burden globally during the past decade—new HIV infections worldwide decreased by 33% from 2001 to 2012—new infections among young people aged 15 to 24 persist at unacceptable rates. Adolescents aged 10 to 19 are the only age group for which death rates attributable to HIV are on the rise.

Global statistics, however, do not reflect locally implemented good practices. Evidence from diverse settings around the world provides examples for potential ways forward. Successful programs for young people integrate biomedical, behavioral and structural interventions, and engage young people as agents of change. Such approaches operate under the theory that youth social networks have unprecedented power not only to diffuse HIV-specific knowledge and promote healthy behavior but also, more importantly, to drive access to assets—like bank accounts and job opportunities—and impact structural drivers of the HIV epidemic. In the words of Dr. David Harrison, formerly the head of loveLife in South Africa and now the CEO of the DG Murray Trust, such initiatives use the power of social networks to “create a sense of real and imminent possibilities in life,” which can change young people’s response to life circumstances and “swing the risk calculus toward safer sexual behaviour.”

WHAT DOES THE EVIDENCE TELL US ABOUT INNOVATION AND ADOLESCENT HIV AND AIDS PROGRAMMING?

Over the years, innovative interventions to promote healthy behaviors have used a variety of strategies, including multimedia campaigns, television and radio dramas, educational theater, peer-education, mentoring, and other outreach efforts. The use of these interventions aimed at strengthening social networks among young people is not in itself new: A number of large-scale HIV/AIDS programs, notably the youth HIV prevention programs loveLife and Soul City, both in South Africa, have been using such an approach for the past 15 years. loveLife, for example, began in 1999 as an ambitious nationwide HIV and sexual and reproductive health initiative targeted toward adolescents aged 12–17. From the beginning, it used a multilevel approach centered on a sophisticated media and marketing campaign, peer-outreach, and life skills and leadership development programs. One of the theoretical models on which loveLife is based emphasizes social networks, and adolescents as “opinion leaders” and “change agents” who can diffuse new ideas, spur behavior change, and “challenge social norms.”

Multiple evaluations over the years have highlighted the program’s challenges and successes. In a 2003 survey, 85% of adolescents reported hearing about loveLife, and 34% reported participating in the in-person programs. Yet, authors of the study noted difficulties in determining the specific impact of loveLife’s initiatives, given limitations to the methodology, and self-report biases, among other issues. The organization confronted implementation and managerial challenges, which shook funders’ confidence. At the time, loveLife’s CEO, Harrison, alluded to the challenges facing programs that may be considered innovative but lack evidence of their precise impact. “We try to sit at the frontier, and that does not lend itself to most current funding models.”

Increasingly, many organizations focused on public health and development are considering today’s information and communication technologies to be a potential innovation in public health programming designed to reduce HIV risk, transmission, and HIV-related morbidity and mortality among adolescents. These technologies—mobile phones, the Internet, social media, and other electronic resources—can connect large numbers of people more quickly than ever before, thereby expanding the reach of behavior-change messages by “enabling more rapid, multi-way and extensive communication and sharing of information,” and driving social change.

The interest in new technology is not surprising given its uptake and coverage. Youth are the greatest users of the Internet and mobile devices globally. Across the developing world, around 40% of people now actively subscribe to mobile services. Well over 50% have access to a mobile, despite not owning one—and those rates are as high as 70% in sub-Saharan Africa. Access to mobile services in the developing world has outpaced the rate at which much
of the population is gaining access to basic services such as electricity, sanitation, and banking.15

Reaching a large adolescent population through the use of information and communication technology should theoretically be easier and more cost-effective than doing so through traditional media; moreover, such methods allow for rapid tailoring of programs to make messages relevant to the needs of individual adolescents. For example, as part of a new strategic planning process in 2008, loveLife developed a mobile-based social networking program, “MYMsta,” using funds formerly used for its billboard budget.10 Evidence does suggest that cell-phone interventions for youth and HIV programming have the potential to improve sexual health, deliver preventive interventions, and improve adherence to ART.9

Nevertheless, many programs aimed at adolescents have seen mixed success, and evidence supporting the use of innovative approaches for scaling up the most efficacious adult interventions for adolescents is scant at best, as highlighted in this supplement by Napierala Mavedzenge et al.16 Mobile phone public health interventions, which are often cited as innovative in the literature, face the same dearth of evidence. Although young people are early adopters of new technologies and the largest users of SMS, 4 authors of a systematic review published in 2013 noted that mHealth (mobile health) researchers generally fail to capitalize on the natural advantages of using mobile technology to reach young people on a broad range of health behavior issues.17 Another review of published articles on mHealth for HIV treatment and prevention concluded that few studies had well-articulated conceptual frameworks, logic models, or rigorous measures. In particular, the authors noted a “surprising lack of evidence for the use of mHealth to enhance the uptake of voluntary counseling and testing,”18 a key HIV intervention.

In their evaluation of loveLife, Petitfor et al9 cited several challenges that are common in evaluating many comprehensive and multipronged initiatives, of which technology and innovation are only part: It is often not possible to use an experimental study design, for example, and it is difficult to define the exposure and to isolate the effect of 1 program amid many similar programs that may be ongoing simultaneously.

HOW CAN WE HARNESS INNOVATION FOR ADOLESCENT HIV AND AIDS PROGRAMMING?

In the absence of rigorous evidence of programmatic impacts, this commentary draws on key informant interviews, Internet research, and published studies and reports to identify innovative approaches to HIV/AIDS programming by and for adolescents, defined as people between the ages of 10 and 19 years. We spoke with more than a dozen leaders in organizations ranging from UNICEF to the Praekelt Foundation to the MTV Foundation, from branding consultants and designers to clinicians. UNICEF’s definition of innovation was used as a common framework for discussion: “collaboration that translates ideas, technologies, and partnerships into products, services, and processes to bring about better, more equitable results for children.”19

Over the past decade, public health and development organizations ranging from the World Health Organization to UNICEF, to the Organization for Economic Cooperation and Development (OECD), the World Bank, and independent nongovernmental organizations (INGOs), have embraced an innovation agenda20 shadowing a similar trend in the corporate world.21 The same period has witnessed a stream of innovative technologies for HIV prevention and treatment, such as rapid diagnostic tests, one-pill-a-day treatment, and new devices for medical male circumcision. Yet, in the context of HIV programming for adolescents, defining innovation strictly in terms of the triumph of hard technology would be a mistake.

Interviewees stressed that the most innovative programming is focusing on new ideas for creating and disseminating messages intended for adolescents, regardless of the medium of communication. These interventions emphasize the importance of social networking, both online and in-person, that increases adolescents’ sense of engagement, citizenship, and self-efficacy22; the use of new multimedia models that combine traditional media—TV and radio—with new media-like websites and mobile apps that allow content to be accessed anytime and shared with other users; and access to social infrastructure—a safe physical space—that for the most vulnerable adolescents, particularly girls and marginalized groups, is “a protective asset in and of itself.”23

New multimedia initiatives such as Project Ignite, a joint project of the MTV Staying Alive Foundation through a partnership with PEPFAR, UNICEF, and other funders, attempt to change social norms and attitudes toward stigma by communicating healthy messages about HIV and AIDS through television and radio, social media, mobile technology, and peer-to-peer education.24 Its “Shuga” television drama depicting the lives and relationships of young university students in Nairobi achieved remarkable exposure and is widely cited as a success in adolescent HIV behavior change communication. A study by Johns Hopkins University’s Center for Communications Programs found that among Nairobi youth in its generalizable sample, 64% were aware of the program and 60% said they had seen it, and that overwhelmingly, young people thought the show had an effect on their thinking about HIV testing, concurrent relationships, and stigma.25 Last year MTV introduced the television series to Nigeria, following a 2012 expansion of Shuga as a radio program to 6 additional countries in Africa.26

Several factors distinguish Project Ignite/Shuga and other innovative initiatives from their analog precedents. Shuga uses a multiplatform approach—its content is disseminated through TV, radio, a website, mobile app, Facebook, and Twitter. Thus, the program does not just deliver 1-way, 1-time information from the TV to the viewer; rather, Shuga—like many current multimedia initiatives—encourages continual access to targeted information, and conversations among adolescents about the content, enabled by new technology. The creators of the initiative also developed a deliberate strategy to represent the reality of adolescent lives rather than deliver strictly didactic messages, partly by including young people themselves in the design and programming. As Sara Piot, deputy executive director of the Staying Alive Foundation, explained, “We would never tell people what to do and what not to do. What we hear again and again is that Shuga is actually the way young people live.”

Trina DasGupta, a branding and nonprofit consultant who has worked with MTV, echoed key informants who said that innovative programs must be designed with a deep
understanding of their audience, going beyond the collection of demographic data to probe adolescents’ motivations, values, and desires. “The methodologies can scale,” she explained, “but the messages must be very local. Kids live in a world where they get hyper-localized information all the time.”

That kind of intensive participatory and collaborative process distinguishes the Praekelt Foundation’s mobile phone initiatives in Africa, several of which are aimed at delivering HIV and sexual and reproductive health information to young people. Its Project Masiluleke, or “Project M,” debuted in South Africa in 2008 after 2 years of research and development that included thorough usability tests; focus groups; and collaborations with PopTech, a global innovations lab; iTeach, an HIV/AIDS nonprofit in South Africa; and frog design, a global product strategy and design firm. Project M used a free text-messaging service to add targeted messages, available in multiple languages, on HIV and sexual and reproductive health, and that directed users to the National AIDS Helpline. A Yale University School of Management case study noted that in the first 2 years of the project, nearly 1.8 million calls to the national helpline originated from Project M messages.

A potential advantage to using cell phones and other digital technology is that in doing so young people can gain some measure of privacy and confidentiality, the lack of which can act as a barrier to accessing information. The ability to anonymously access reliable sexual and reproductive health information is the basis of Learning about Living, a project of OneWorld UK in collaboration with Butterfly Works Netherlands. The program, which began in Nigeria in 2007 and has since been adapted for Egypt, Mali, Morocco, and Senegal, provides a digital version of the national Family Life and HIV/AIDS curriculum to adolescents aged 10 to 19, supported by a mobile-based SMS question–answer service that allows “issues of SRH to be explored in a virtual space that is free from traditional social pressures.” Results from baseline and endpoint surveys conducted by the program indicated that on average, girls who participated in the Learning about Living digital version of the curriculum had 9%–20% greater knowledge levels surrounding sexual and reproductive health issues than girls who received either the standard or no Family Life curriculum. Yet in a program summary report, OneWorld also noted challenges facing initiatives such as Learning about Living that rely on electronic or digital technology, particularly in developing countries: unreliable power supply, limited Internet connectivity, and a shortage of computers and other hardware.

A review of innovations cannot fail to gaze into the chasm of the digital divide that isolates the poorest and most vulnerable adolescents from access to information and networking opportunities delivered through technology. Interventions targeting such adolescents, particularly marginalized girls, are focusing on structural determinants and social protection, using highly trained mentors and peer educators, and cash transfers and other incentives to increase young people’s access to protective assets—often combining these strategies in a holistic, multisectoral approach. Cash transfers in particular show promise for reducing HIV risk in adolescents. Recent evidence from a cluster randomized trial in the rural Zomba district of Malawi showed that women aged 13–22 who received monthly cash payments—both unconditional and contingent on school attendance—were significantly less likely to be infected with HIV at follow-up than the control group; and had less frequent sexual intercourse, with fewer older partners. In an accompanying commentary on the study in The Lancet, Pettifor et al surmise that “the true power of structural interventions” like cash transfers lies in the ways they affect healthy behavior by addressing upstream determinants, be they poverty or education. In their analyses of Stepping Stones in South Africa, Jewkes et al have reaffirmed the need for HIV prevention programs aimed at girls to address structural and behavioral interventions.

Other initiatives geared toward adolescent girls prioritize the development of safe social spaces as a key HIV prevention strategy, a tool that can “transform the very circumstances that put them at risk of HIV.” A structured literature review of control-comparison studies of interventions directed at girls’ health in low- and middle-income countries from 1995 to 2013 found that more than half of the 49 interventions that demonstrated an impact included such spaces as part of the program. One program, Biruh Tesfà, developed by the Population Council, targets poor girls aged 10–19 in urban areas of Ethiopia, particularly domestic workers and migrants. At the heart of the program are older female mentors who teach a curriculum integrating life skills and knowledge of HIV/AIDS and gender-based violence in dedicated community centers and safe spaces. The mentors conduct house-to-house surveys to both recruit and follow-up with participants, negotiating with potentially hostile employers and personally tracking down girls who miss meetings, thus acting as protectors and advocates. Results of a quasi-experimental study of this program found that girls in the intervention sites were twice as likely as girls not in the sites to score highly on HIV knowledge questions, to know where to obtain voluntary counseling and testing, and to want to be tested.

WHAT ARE THE MAJOR CHALLENGES IN HARNESSING INNOVATION FOR ADOLESCENT HIV AND AIDS PROGRAMMING?

Ultimately, achieving an AIDS-free generation might rely more than we thought on developing adolescent leaders as agents of change—not simply behavior change, but societal and legal change. Innovative programming may be expanding adolescents’ social networks and engagement, increasing their HIV-specific knowledge, and increasing demand for HIV testing and treatment; but what is to meet this demand; and how will the effects of these programs be rigorously measured?

Technology companies and mobile host sites are not clinicians or experts in evaluation. Marcha Neethling, Head of Operations at the Praekelt Foundation, suggests that more collaboration is needed between program sponsors and the technology sector to develop better tools for measuring impact. “We need to get more focused on how to build these tools into our projects from the start, so that it’s not an afterthought,” she says. “The technology is the easy part. What really is challenging is trying to bring together organizations that look at problems from very different angles.”

Even dizzying advances in technology are useless if adolescents have no access to them or are not able to access health promoting information, services, or networks. Moving forward, technology and social innovators—young and old—
must task themselves with removing barriers to testing and treatment that will reduce the sheer numbers of HIV infections and AIDS deaths in this population. Innovations must support adolescents’ access to a wider array of confidential testing options available in the community and through the health sector, link them to biomedical and other prevention services of proven efficacy, such as antiretroviral therapy, medical male circumcision, and to specific harm reduction interventions. In the years to come, it is network disruption—of entrenched social mores, stigma, attitudes, and discriminatory practices—that will constitute true innovation.

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