

# Ending adolescent AIDS through mobile-based counselling and polling

## U-Report



Photo by UNICEF / Zambia / Maseka / 2016

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*Despite incredible progress over the last decade in placing people on HIV treatment and preventing mother-to-child HIV transmission, adolescents aged 10–19 have been largely left behind in the global AIDS response. Adolescents are the only age group for which AIDS-related deaths have not decreased—in fact they have tripled since 2000.<sup>1</sup> AIDS is the leading cause of death for adolescents in Africa, and the second globally.<sup>2</sup> Every hour 26 new HIV infections occur among older adolescents (aged 15–19), 40% of which happen outside sub-Saharan Africa.<sup>3</sup> Moreover, risk is high among this age group due to their very limited knowledge about HIV. In sub-Saharan Africa, 70% of boys and girls (15–19) have low comprehensive knowledge on how to protect themselves and access services.<sup>4</sup>*

*To address this critical gap in HIV/AIDS response, and with youth being the greatest users of mobile devices globally, UNICEF decided to invest in innovative solutions that can achieve quick wins in service-delivery, while creating real, long-lasting change for adolescents. One such innovation is U-Report, a general mobile-enabled youth engagement platform. U-Report has been used as a focused mHealth application, specifically providing real-time mobile counselling and conducting coordinated polls on AIDS among adolescents and young people. Objectives of the program are to: improve access to sexual reproductive health (SRH) knowledge; increase utilization of HIV prevention services; and better understand perceptions on HIV-related issues in order to contribute to reducing new HIV infections among adolescents and youth.*

### About U-Report

**M**obile Powered by RapidPro—UNICEF’s open-source software platform for international development—U-Report is a user-centered tool that empowers young people to speak out on various issues that they care about in their community, encourage citizen-led response, and magnify voices locally, nationally, and globally to create positive change. The platform is interoperable with various technology platforms, allowing U-Reporters to communicate with other young people and communities via SMS, Twitter, App, Facebook Messenger, and Telegram depending on country context. First launched in Uganda in 2011, there are currently over 2 million U-Reporters, operating in 23 countries: Brazil, Burkina Faso, Burundi, Cameroon, Central African Republic, Chile, Democratic Republic of Congo, Guinea, Indonesia, Ireland, Liberia, Mali, Mexico, Mozambique, Nigeria, Pakistan, Senegal, Sierra Leone, Swaziland, Uganda, Ukraine, Zambia, and Zimbabwe.

Young people are targeted to join U-Report through local nongovernmental organizations (NGOs), youth groups, and faith-based organizations. Traditional media campaigns are also used to advertise the service and encourage young people to sign up. By sending the text message, “join,” to a toll-free number and answering a few registration questions (e.g. age, gender, region within a country in which they reside), any young person with a mobile phone can become a volunteer “U-reporter” in their country. Weekly poll campaigns are conducted on a wide range of issues, including poverty, bullying, Ebola, and gender equality.

While U-Report is designed as a multithematic social messaging tool, some countries, like Zambia, have chosen to optimize on the tool’s large user base and real-time analytics. The program is utilized in a targeted approach to achieve HIV outcomes among adolescents and young people, partic-

ularly to: increase knowledge on HIV and SRH; generate demand for and increase uptake of HIV testing and counselling (HTC) and related health services, and better understand barriers to HIV-prevention services.

UNICEF, in partnership with Zambia's National AIDS Council (NAC), launched U-Report Zambia during the

2012 World AIDS' Day. It currently has a national reach of over 98,000 subscribers, 65% of whom are adolescents (10–19 years) and young adults (20–24 years). U-Report, as an SMS-based intervention, provides confidential, free-of-charge, and real-time counselling services on HIV and SRH to adolescents and youths.

## Program Design Process

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U-Report Zambia is built on the foundation of its Uganda counterpart, where the platform was first implemented. It was further developed through a participatory, consultative process including a design workshop that involved young people and program experts from NAC, the ministries of health, education, youth and sports, and local NGOs, representatives from mobile companies, and information technology and software developers. Throughout design and implementation, the opinions of adolescents and young people from both urban and rural areas were continuously sought, either in person or via U-Report to shape and improve the platform's programming and content, so that messages are locally adapted to the language and tone of its young users.

The mHealth application of U-Report Zambia has two components: Knowledge Bank and Poll/Campaign. Knowledge Bank is a dynamic repository of up-to-date information on HIV and SRH, which over time has expanded to other related issues, such as gender-based violence. SMS-counsellors use this resource to provide correct and consistent information to U-Reporters. The weekly Poll/Campaign module obtains and gauges the opinions of adolescents and young adults on HIV issues, and promotes national events to create awareness, promote positive behavior change and increase utilization of services (e.g. national HIV testing day). Survey results are disaggregated, analyzed, and displayed on its website in real-time, and integrated in key decision-maker meet-

ings. The results inform policy dialogue and programmatic decisions, and establish a baseline on knowledge, access, and utilization of high-impact HIV prevention services.

UNICEF provides technical leadership and manages the systems' operations (e.g. Poll/Campaign module, and reporting and analytics), and NAC acts as U-Report's primary champion and country-wide coordinator of various partners, ensuring that the program aligns with national HIV guidelines and plans. UNICEF negotiated discounted bulk SMS rates with all three mobile phone operators in Zambia—namely Airtel, MTN, and Zamtel, offering SMS service to U-Reporters at no cost.

To implement the mHealth counselling component of U-Report, UNICEF entered into a partnership with CHAMP, a local NGO, which already managed the national “990” voice counselling service. CHAMP provides counsellors, manages the Knowledge Bank module, and conducts the day-to-day operations of the “878” SMS-based U-Report counselling service. Integrating and ensuring interoperability of the phone and SMS services, while challenging, is crucial to the program's goals as it both streamlines operations, and gives young people options to better access HIV counselling and information. The two-way SMS communication between young people allows for anonymity, while a voice conversation allows for more in-depth conversation when necessary.

## Growth in Scale

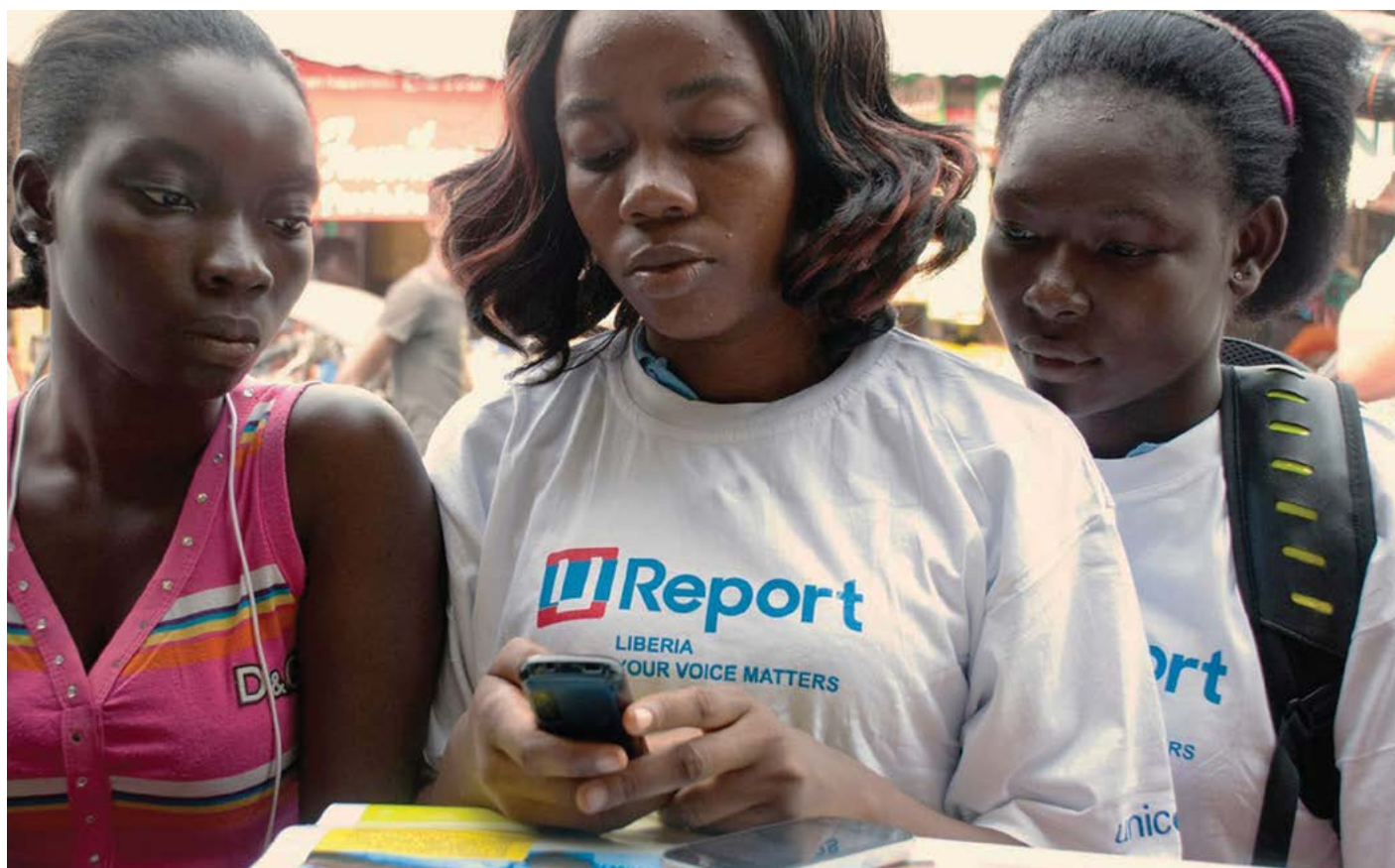
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In less than five years, U-Report's membership has rapidly grown to over 2 million users worldwide, going live in 23 countries, with 11 in the pipeline. In addition to its country roll-outs, U-Report has a global roll-out (U-Report Global), which enables adolescents and young people from all over the world to voice issues that affect them through Facebook Messenger, Twitter, Telegram, and App, regardless if they have a national U-Report. U-Report's digital reach has expanded to over 40 countries in both developing and developed countries.

U-Report collaborates and builds relationships with multiple stakeholders, who want to work on a common program-

matic issue/s in their country to ensure local ownership and long-term investment, while achieving the three U-Report global strategic goals: “scale, engage, and change.” U-Report is based on the theory that the strength of its voice is in its numbers. Using transferable technology developed in the South, UNICEF is able to launch in a new country within 8-12 weeks, working towards the objective to create an international community of young people. To ensure sustainability, UNICEF also works with telecommunication providers to make U-Report a free platform within interoperable technologies.





U-Report's advantage is that not only is it a multiplatform technology, but it is also a multithematic platform that goes beyond mHealth per se. U-Report can focus on a specific outcome area (e.g. HIV/AIDS) or population group (e.g. adolescent girls and boys) like in the case of Zambia, but it can also concurrently tackle a broad range of issues that is most press-

ing to young people. While HIV and health are important issues, they are often the least of concerns among the youth, so it's important to have a flexible platform. U-Report's holistic approach constantly engages adolescents to discuss issues that affect them today, while giving them access to health information and HIV services they need the most.

## Evaluation and Results

Of the over 98,000 Zambian U-Reporters who have voluntarily signed up, about 62% have asked questions—through both poll-based solicited and unsolicited messages—with the counsellors.<sup>5</sup> Most respondents are aged 10–24 years (65% of users), male (60%), and located around the urban areas (55%). The average monthly traffic for 2016 ranges between 8,000 and 10,000 SMS messages, 90% of which, if addressed to counsellors, are responded to within a two-hour window. By capitalizing on the growing use of mobile phones and through reliable and correct information from the counsellors, U-Report Zambia contributed to increasing access to and improving comprehensive HIV knowledge among adolescents and young people. While it's crucial to promote and reinforce information through multiple channels, U-Report added value by disseminating information in real-time to a targeted and particularly vulnerable population at a relatively low cost.

Through a 10-day U-Report campaign on HTC, a package of SMS messages designed to trigger a two-way interactive SMS counselling session, was delivered to all registered Zambian U-Reporters in Lusaka and Chongwe districts. SMS counsellors addressed questions and referred U-Reporters to the nearest HTC site in their location. The evaluation analyzed HTC uptake among U-Reporters at baseline, and measured the increase in uptake two weeks after the campaign.<sup>6</sup> Out of the 1,139 U-Reporters (10–24 years) who claimed that they have not tested for HIV in the past 12 months, 18% reported going for HTC during the SMS campaign, most (62%) of them adolescents (15–19 years). In a short period of time, the U-Report SMS campaign was able to generate 1 additional HIV test for every 5 young people who had not tested for HIV in the previous 12 months. While the results are promising, the methodology relies on self-reported data on HTC uptake, and it would be important to conduct future studies that allow such claims to be verified by health facilities.



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Zambian U-Reporter Beatrice Phiri (right) speaks to a youth about HIV and AIDS information received on U-Report.

U-Report conducted a polling initiative focused on better understanding barriers to HIV prevention in Zambia among adolescents and on generating user feedback and solutions for more youth-friendly health services. The main barrier to HTC, according to analysis of a sample of 15,228 U-Reporters aged 10–24 years, was fear of a positive test.<sup>7</sup> Lack of awareness of the importance of HTC was highest among younger adolescents. Older adolescents and youth proposed to increase tailored HTC campaigns, while younger adoles-

cents prioritized the use of incentives and campaigns targeting parents. While all age groups suggested to make condoms more widely available, older adolescents and youth preferred confidential condom distribution centers managed by other young people. These findings were presented by adolescents themselves at the Third National HIV&AIDS Prevention Convention—a national-level forum on HIV, which allowed young people to meaningfully participate in policy and program design on HIV and health in their country.

## Lessons Learned in Program Implementation and Scaling

Voluntary medical male circumcision (VMMC) decreases the chance of men acquiring HIV by 60%.<sup>8</sup> Accordingly, U-Report Zambia launched an SMS campaign on VMMC as part of an impact evaluation, conducted by IDinsight and funded by the International Initiative for Impact Evaluation.<sup>9</sup> The randomized controlled trial, with a sample of 2,312 male U-Report subscribers (aged 15–30) in urban Lusaka and peri-urban Chongwe districts, examined the effects of SMS-based interventions on circumcision uptake. In a span of five months, participants received 21 SMSs, providing VMMC information, encouraging them to go for circumcision, and engaging them in SMS counselling via U-Report. The evaluation found that the SMS campaign did not have evidence of impact on uptake of circumcision within six months. However, the U-Report campaign showed significant information-seeking behavior on VMMC and spurred high levels of engagement with SMS counsellors. While SMS interventions and counsellor access alone may not lead to increased circumcision uptake, policy-makers and program implementers should consider integrating low-cost SMS

promotion as part of a broader range of behavior change interventions.

U-Report is committed to providing free access for the user anywhere in the world, making negotiations with mobile network operators (MNOs) crucial. Negotiations on packages with MNOs vary from country to country. One lesson learned is to work closely with the operators at the onset, and bring them in as part of the U-Report program. In U-Report Zambia, the counselling component has an annual fixed cost of over US\$200,000 covered by the Global Fund to Fight AIDS, Tuberculosis, and Malaria over the next three years. This price provides a dual SMS and voice service 24/7, with counsellors working out of a call center. However, this expense can be further reduced with more cost-effective solutions, such as using a telecommuting model (i.e. counsellors work remotely) and automated counselling systems. The lower the cost, the more scalable and sustainable an innovative solution is in the long-term.



## Future Plans

During World AIDS Day 2015, more than nine countries engaged over 1.3 million U-Reporters to participate in a multicountry dialogue on HIV/AIDS related issues. The coordinated poll gauged young people's perceptions on common themes, such as testing, treatment, knowledge on prevention and transmission, and stigma around HIV/AIDS. While its results should not be taken as statistically accurate, as a crowdsourcing tool U-Report can complement ongoing processes and interventions. In 2016, U-Report will conduct a series of questionnaires on HIV throughout the year to amplify the voices of adolescents and young people worldwide, with quantitative and qualitative responses feeding into UNICEF's biennial "Stocktaking Report on Children and AIDS." This initiative will give adolescents an opportunity to recommend solutions, influence decision-makers and government leaders during the 21st International AIDS Conference (AIDS 2016) in Durban, South Africa, and actively participate in shaping the future of HIV programming in UNICEF.

In the pipeline, UNICEF's priority is to expand mHealth applications of U-Report linked to HIV services and programmatic results. Several countries are working on linking U-Report to help improve antiretroviral treatment adherence, promote condom use, increase HIV testing, and supplement country assessments on adolescents and HIV data. Nigeria and Zimbabwe have started adopting the Zambian model of providing real-time counselling via U-Report. Zambia is looking into optimizing its SMS counselling through artificial intelligence. Currently in the testing phase, the automated version uses machine learning algorithms that pick out key words from messages, sort them into categories,

and send standard responses, with the goal to provide faster and more accurate counselling services.

Beyond mHealth, U-Report is looking to further diversify channels over which young people can communicate. Smartphone apps for iOS and Android are being released this year, with the ability to send and receive rich media. This feature will enable U-Reporters to share their experiences and stories in their own voices, and connect with others. U-Report is also launching a web-based registration, which could be applied during a humanitarian crisis and/or a health emergency response. ■

### Snapshot: U-Report

Geographic Coverage	U-Report is live in 23 countries: Brazil, Burkina Faso, Burundi, Cameroon, Central African Republic, Chile, Democratic Republic of Congo, Guinea, Indonesia, Ireland, Liberia, Mali, Mexico, Mozambique, Nigeria, Pakistan, Senegal, Sierra Leone, Swaziland, Uganda, Ukraine, Zambia, and Zimbabwe. U-Report Global (ureport.in/) has a digital reach in an additional 28 countries.
Implementation Dates	2011 to present
Zambia Partners	UNICEF National AIDS Council (leadership and coordination) Christian Health Association of Zambia (management oversight of counseling service activity funds) CHAMP (management of the national "990" voice counseling service and operations of the "878" SMS counseling service, promotion activities)
Zambia Implementation Donors	Global Fund Mobile phone operators (i.e., Airtel, MTN, Zamtel) provide SMS services at discounted rates
Contact Information	James Powell, U-Report Global Coordinator UNICEF, jpowell@unicef.org

## References & Additional Resources

### References:

1. UNAIDS 2014 HIV and AIDS estimates, July 2015.
2. WHO, *Health for the World's Adolescents: A second chance in the second decade*, World Health Organization, Geneva, 2014.
3. UNAIDS 2014 HIV and AIDS estimates, July 2015.
4. UNICEF global HIV and AIDS databases (September 2015) based on MICS, DHS, AIS and other nationally representative household surveys, 2010-2014.
5. As of end of April 2016, there are 98,277 members and 61,108 unique conversations in U-Report Zambia.
6. "Zambia U-Report: Innovative demand creation for HIV testing and counselling using mobile phones." Abstract was written by authors from UNICEF Zambia, CHAMP, National AIDS Council (NAC), and UNICEF Eastern and Southern Africa Regional Office.
7. "Using real-time SMS to understand barriers to HIV prevention services among adolescents in Zambia: Lessons learned and implications for adolescent health programming." Abstract was written by authors from UNICEF Zambia, University of Zambia, National AIDS Council (NAC), CHAMP, and UNICEF Eastern and Southern Africa Regional Office.
8. Bailey, RC, et al. Male circumcision for HIV prevention in young men in Kisumu, Kenya: a randomised controlled trial. *Lancet*, 2007, 369:643–656.
9. IDinsight, *Measuring the Impact of SMS Campaigns on Uptake of VMMC in Urban Zambia*, Lusaka, Zambia, June 2015.