HEART
HEALTH & EDUCATION ADVICE & RESOURCE TEAM

Helpdesk Report: Increasing access to sexual and reproductive health and rights via new innovations and technologies in Africa

Date: 13 July 2016

Query: What is the evidence in Africa for increasing access to Sexual and Reproductive Health and Rights via new innovations and technologies, mobiles, internet and how does that translate into actual increases in additional/new users?

Content

1. Overview

New innovations and technology, including mobiles and internet, have enormous potential for increasing access to sexual and reproductive health and rights (SRHR). They can be particularly helpful in reaching hard to access groups, including remote or stigmatised populations, due to the rapid spread of telecommunications infrastructure, mobile phones and broadband usage in low and middle income countries1. This helpdesk report explores the evidence around innovations and technologies that increase access through broadening the availability and reach of information and services. Some of the papers on innovations and technologies identified in this helpdesk report do not quantify the increases in users but have been included regardless if they describe an interesting approach. This helpdesk report provides a snapshot of some of the most relevant evidence currently available.

The evidence suggests that mobile phones are extremely useful for increasing access to SRHR, both through educating the public directly or providing information to health professionals. Information can be provided directly or referrals made to clinics or other centres for accessing SRHR. Key challenges include a low proportion of the population owning mobile phones in some areas or lack of funds to charge them, and certain groups, including women, those over 45 and socio-economically disadvantaged groups being less likely to have access to a phone. Web-based approaches are also very useful in increasing access to SRHR. This includes online health education programmes, websites and social media platforms. These services are very popular for accessing information and are often

1 Barriers and Gaps Affecting mHealth in Low and Middle Income Countries: Policy White Paper Mechael, P., Batavia, H., Kaonga, N., Searle, S., Kwan, A., Goldberger, A., Fu, L., Ossman, J. (2010). Center for Global Health and Economic Development Earth Institute, Columbia University http://www.globalproblems-globalsolutions-files.org/pdfs/mHealth_Barriers_White_Paper.pdf

described by users as non-judgmental and authoritative. Many clients are then referred on to other services. Challenges include lack of access to computers and embarrassment at visiting sites referring to SRHR in public. Mixed approaches were also common among programmes to increase access to SRHR and were found to be largely very successful in achieving their goals.

Mobile phone-based evidence

Section 2 identifies evidence on the use of mobile phone-based approaches to increasing access to SRHR. The report entitled '*Toll free SRHR hotline shows good results*' from SRHR Alliance, accessed 2016, describes the use of a phone line in Kenya to facilitate youth access to SRHR, with health staff operating a confidential hotline targeting young people from slums, providing advice, basic diagnostic services, and encouraging the use of SRHR services. It was found that the study resulted in more young people attending clinics for services. However, a significant drawback was that only 20% of young people owned a mobile phone.

The report on the '*Fitun Warmline AIDS Hotline*' (CHMI, accessed 2016) describes a further use of a toll free hotline, in this case dedicated to answering questions by health care professionals about HIV/AIDS care and treatment in Ethiopia, allowing them to stay up to date with the latest information and thereby ensure that patients have access to an improved standard of care. It has been extremely popular and handles over 400 calls a week.

Walman & Stevens, 2015, describe three case studies of programmes with phone-based approaches to improving access: MomConnect, m-Assist and Young Africa Live. MomConnect is a free mobile phone-based health service which provides stage-based advice and information on pregnancy, including advice to visit a clinic or take a blood test, to all South African pregnant women and mothers of young children through text messages. It specifically addresses maternal issues, not abortion, HIV prevention, adolescent sexuality or contraception. M-Assist explored the impact of text-based post-abortion support to women who had undergone a medical abortion. The texts reminded women to complete their prescriptions, helped assess how long symptoms should last and when to seek medical support. This reduced the need for follow-up visits, reduced demands on abortion providers and improved the experience of medical abortion. Young Africa Live provides a mobile platform for young people to talk anonymously about sexuality, relationships, HIV and other STIs, and includes organised live conversations with medical doctors where users can pose questions, with around 500 questions typically received in a 2-hour session. The report entitled '*Mobile platforms an important first step*' describes a campaign to promote three phone-based health platforms in Uganda for SRHR information dissemination and discussion. Users reported high satisfaction with the platforms though referral for other services was minimal and feedback was not as timely as would be preferred.

Web-based evidence

Section 3 identifies evidence on the use of web-based approaches to increasing access to SRHR. The report entitled '*Youth4life's potential not yet fully reached*' by SRHR Alliance describes an online SRHR platform for Kenyan youth which attracted 19,500 users in its first four months. The platform was well received, with visitors finding it reliable and non-judgemental, and almost 10% of the online respondents said they visited a health clinic after learning about it from the website. It mentions challenges in terms of the cost of accessing internet and the need for a certain level of literacy. Ybarra et al. (2014) describe an internet-based comprehensive sexuality education programme for adolescents in Uganda where 94% of young people somewhat or strongly agreed that they learnt a lot.

The report entitled '*Online youth want personal contact and true stories*' by SRHR Alliance describes a website and Facebook page used to bring sexual health information to young people. The Facebook page has 31,000 followers. The online survey found that visitors found the referral information on the website useful. It was found that young people were most interested in relationship issues and contraceptive information rather than STI information

and treatments. Challenges included bad internet connections, lack of a mobile phone or laptop, lack of funds to pay for an internet café, lack of time available to use the website at school. Girls in particular indicated they felt uncomfortable reading information on sex in a computer lab. Bull et al. (2012) found that exposure to a Facebook page with information on SRHR resulted in increased use of condoms and proportion of sex acts protected by condoms in the intervention group after two months, though interestingly there was no effect found at 6 months.

Evidence on mixed approaches

Section 4 identifies mixed innovative and technological approaches to increasing access to SRHR. The report on the '*Gap between offline and online platforms*' in Uganda by SRHR Alliance describes a mixed approach using youth clinics, ICT centres, a Facebook page and a toll-free SMS helpline. All survey respondents used the SMS helpline at least once and over 80% visited an ICT centre every week. The '*Videos and text messages support sexuality education*' report is on a programme providing instructional videos for secondary school teachers to use in their classes and an SMS helpline for youth to ask personal SRHR questions. 72% of survey respondents who had used the SMS helpline reported receiving referrals to additional SRHR information and services but many youth were not aware the helpline existed. Rural teachers had some issues with access to equipment to play the videos.

Bajoga et al. (2015) found that recent exposure to family planning messages in the media in Nigeria predicted both sexual experience and use of modern contraceptive methods in young women. Kim et al. (2001) found that a multimedia campaign to promote sexual responsibility among young people in Zimbabwe was extremely successful, with young people in campaign areas being 2.5 times as likely as those in comparison areas to report declining sex, 4.7 times as likely to visit a health centre and 14 times as likely to visit a youth centre. Daniels (2007) found that a multi-sectoral approach in Botswana, Ghana, Tanzania and Uganda resulted in 35 million stakeholders being reached through media campaigns and 2.5 million visits made by young people to static clinics and outreach services. It resulted in a considerable improvement in sexual knowledge, attitudes and behaviours. Moya (2002) states that a SRHR programme involving a youth clinic, counselling unit, and computer centre, among other interventions, successfully provided 18,995 males condoms and 2,337 female condoms; served 2,646 clinic clients; and counselled 102 youth, with an addition 600-800 counselled by telephone.

Other useful resources

Section 5 describes three further interesting reports which, although they do not fall within the direct remit of the question, are highly relevant. The report entitled '*High use of ICTs, low access to SRHR info*' by SRHR Alliance describes how although vulnerable young people (gay, lesbian, sex workers and young domestic workers) all use ICTs, they were rarely used to access SRHR information. It mentions that there is considerable unmet potential to target these groups through ICTs and suggests steps to do so. Stahlman et al. (2016) describe a study which found that online MSM sex-seekers are at increased risk for HIV and other STIs, and that online SRHR approaches may be helpful to target them in order to address this issue. Madhvani et al. (2015) found that patients over 45 years of age, women, and patients with only primary or no schooling were less likely to use mobile phones as clinic appointment reminders, and recommends that programmes should take this into account and tailor interventions to ensure these groups are not neglected.

2. Mobile phone-based evidence

Toll free SRHR hotline shows good results
SRHR Alliance. Accessed 12/07/2016.

http://www.rutgers.international/sites/rutgersorg/files/Operational_Research_pdf/Summaries_logo/9._Kenya.EMhealth.KMET%20S.pdf

In August 2014, a toll-free line was launched in Kisumu, Kenya, to facilitate youth access to sexual and reproductive health and rights (SRHR) information and services. This study researched Kisumu Medical Trust's (KMET) pilot project and the factors that promote or inhibit youth access to SRHR information through the hotline. The researchers found that there is great potential for reaching out to youth by phone, which also increases youth use of medical services. The region around Kisumu has the country's highest prevalence of HIV, teenage pregnancies and unsafe abortions, particularly among 15-19 year old females. Nevertheless, young people often shy away from SRHR services because of general barriers like costs, distance, waiting time, stigma and unfriendly staff. KMET's toll-free hotline was introduced to overcome these barriers. Youth-friendly nurses, midwives and counsellors operate the hotline from 7am to 6pm from the KMET Central Medical Facility and target 6,000 young people from Kisumu's Obunga slums. They assure confidentiality and securely store client data in a cloud-based central server. The hotline enables counsellors, nurses and doctors to extend their services to young people in the community through the phone and using basic diagnostic tools. Currently, one third of the respondents get SRHR information from KMET's toll-free line. Callers are provided with basic information on a range of SRHR topics and those who require physical examination or laboratory test are referred to medical services.

Youth consider the toll-free line to be confidential, flexible to call anytime, reliable because of adequate and quality information, and accessible in terms of distance and costs. Moreover, conversations are in any preferred local language and young clients get personalised attention from friendly and knowledgeable staff. The hotline encourages the use of SRHR services by young people. Study results show that more youth turn to the clinics for services. Factors inhibiting access to hotline Access to KMET's toll-free line is mainly hampered by the fact that only 20% of youth own a mobile phone. Secondly, the service is largely unused by younger adolescents aged 10-14, because they believe that SRHR services are for older people, and parents try to prevent their children from exposure to SRHR information. If they call, many are still shy and require additional support to encourage them to talk and ask their questions. Older adolescents aged 20-24 years call more often and ask for more information than their younger counterparts. Study data was gathered using 615 surveys; 12 focus group discussions with young people; 12 interviews with mystery clients of the toll free line; and key informant interviews with 4 service providers offering youth friendly services through the toll free line.

Fitun Warmline AIDS Hotline
Center for Health Market Innovations. Accessed 12/07/2016.
http://healthmarketinnovations.org/program/fitun-warmline-aids-hotline

This webpage describes the Fitun Warmline, a toll-free telephone information service devoted to answering questions by health care professionals about HIV/AIDS care and treatment in Ethiopia. It describes how, while access to antiretroviral treatment has significantly improved in recent years, there is still a shortage of experienced HIV-care providers, especially in remote areas of Ethiopia. Health care professionals confront many complex questions about HIV treatment and care. In Ethiopia, limited resources, inadequate communication infrastructure, and a lack of continuing education opportunities often prevent health care professionals from staying up-to-date on the latest information about HIV/AIDS. Health care professionals with HIV/AIDS care and treatment questions can contact Fitun Warmline by dialing 932 free of charge from any mobile phone or landline or by submitting a query on the website.

When possible, the Fitun Warmline staff answer questions immediately. For more complex questions, their staff will conduct additional research to produce a reliable and informative answer. A Warmline staff member will then return the call within two hours. When necessary the Warmline will also supply documentation to support the answer provided. Fitun runs a website functioning as a complementary service to the Warmline by providing direct access to important resources and support materials for health providers; and offering a means to direct queries from health providers to the Fitun team. The Fitun Warmline also has developed ongoing professional relationships with other telephone call-in services for health care professionals, including the AIDS Information and Treatment Center (ATIC) Uganda, and the National HIV/AIDS Clinicians' Consultation Center (UCSF) California. Fitun produces and disseminates informational materials such as flyers, drug information charts, frequently asked questions, and job aids. Fitun started in 2008 and handles over 400 calls per week.

Sexual and reproductive health and rights and mHealth in policy and practice in South Africa
Waldman, L., Stevens, M. (2015) Reprod Health Matters.;23(45):93-102.
http://www.ncbi.nlm.nih.gov/pubmed/26278837

This is a qualitative study exploring the intersections between mHealth and sexual and reproductive health and rights in both policy and practice. It is informed by policy review and key informant interviews. Three case studies provide evidence of what is happening on the ground in relation to ICTs and reproductive health and rights. The authors argue that in terms of policy, there is little overlap between health rights and communication technology. In the area of practice, however, significant interventions address aspects of reproductive health. At present, the extent to which mHealth addresses the full range of reproductive justice and sexual and reproductive health and rights is limited, particularly in terms of government initiatives. The paper argues that mHealth projects tend to avoid contentious aspects of sexual health, while addressing favourable topics such as pregnancy and motherhood. The ways in which information is framed in mHealth mirrors current gaps within sexual and reproductive health and rights, where a limited and conservative lens predominates, and which may result in narrow programming and implementation of services.

MomConnect
MomConnect is a free mobile phone-based health service which provides stage-based advice and information on pregnancy to all South African pregnant women and mothers of young children. MomConnect was developed based on a voluntary mHealth programme MAMA (Maternal Alliance for Maternal Action). MomConnect was launched in August 2014 and is the first national mHealth project. MomConnect provides data collection tools, supports clinical care, and contributes to the national pregnancy registry. MomConnect text messages were developed with the aim of achieving a balance between technical, medical jargon and colloquial language. The National Department of Health wanted to send some health information explaining pregnancy and the accompanying bodily processes and some instructional messages directed at behavioural change, directing women when to visit a clinic or have a blood test.

The National Department of Health commissioned the testing of the SMS messages. This research showed that some messages were clear, educational and well-received. Interviewees explained that it had been difficult to develop appropriate and nuanced text messages in 160 characters while also explaining or translating terms such as fortified foodstuff or quantifying amounts such as heavy or light bleeding. The commissioned research and testing also highlighted a lack of clarity in combined messages. For example, one message informed women about the development of their babies and the growth of fingers alongside telling them to visit the clinic if they felt unwell; women wondered if the baby's fingers induced their ill-health. MomConnect messages specifically address maternal health issues and do not focus on abortion, HIV prevention, adolescent sexuality or contraception. In

so doing, MomConnect augments women's knowledge of pregnancy and childbirth and offers Maternal and Child Health (MCH) enhancement.

m-Assist

m-Assist was a randomised control trial, undertaken between October 2011 and May 2012, exploring the impact of text-based post-abortion support to women who have undergone a medical abortion (using misoprostol and mifepristone), assessing women's apprehension and emotional unease as well as their ability to understand and manage their physical symptoms between clinic visits. In this trial, 469 women were randomised into the intervention and control group, with those in the intervention arm receiving a series of messages in the period (14 to 21 days) between the medical abortion and the follow-up clinic visit. m-Assist was initiated by the Women's Health Research Unit at the University of Cape Town (UCT). The text messages in the m-Assist trial reminded women to complete their prescriptions as well as providing information on their physical symptoms, offering advice on managing bleeding, pain and cramping and other side effects as well as highlighting possible problems. The messages offered a combination of information and reassurance, helping women to assess how long their symptoms should last and when to seek medical advice.

Working in collaboration, UCT and Cell-Life developed the text messages and communicated these messages to the women in the intervention group. The results of the trial showed that the combination of information, self-assessment and support provided via mobile phones reduced the need for follow-up visits by clients; enhanced the experience of medical abortion; reduced demands on abortion providers; and increased post-abortion knowledge. The trial found that the text messages were highly appreciated by most women, making them feel as though they were being accompanied by someone who knew what to expect. They felt supported and this effectively reduced their anxiety around abortion. The messages also improved women's understanding about what was happening to their bodies during medical abortion.

Young Africa Live (YAL)

YAL is a mobile platform that enables young people to talk anonymously about sexuality, relationships, HIV and other sexually transmitted infections, etc. Aware that tens of thousands of young people are active on network operator-based mobile platforms, the implementer, not-for-profit organisation Praekelt, resolved to harness this audience. Its aim was to do something positive in relation to HIV information, finding a way that people could talk about the activities which fuel the HIV epidemic in an interesting and engaging manner. YAL is highly popular with young people and has nearly 2 million registered users. Mobile phones are seen by YAL's implementers as facilitating social change and reaching millions of young people. YAL is a Praekelt Foundation Initiative including partners such as the Vodacom Foundation, USAID and Childline.

In May 2015, a partnership with the National Department of Health was announced for the development of an mHealth app for youth-orientated health. YAL seeks to provide educational and health content in a positive and engaging way. It provides information on sexual health and tackles politicised topics such as abortion and choice. YAL does not provide professional medical advice. Instead, key terms such as "abortion" or "suicide" trigger automated responses that provide information about national helpline services and users are encouraged to seek professional care. By providing this platform, where young people can freely discuss health and sexual issues, YAL recognises young people's sexuality and other contentious sexual and reproductive rights issues such as abortion and choice. It seeks to drive discussions that challenge social norms. In addition to allowing content to be driven by the users, YAL organises live conversations with medical doctors with expertise in HIV, other infectious diseases or sexual health, during which users can pose questions. The popularity of these sessions is reflected, as an employee at YAL explained, in the fact that the medical expert will usually receive up to 500 questions during a 2-hour session. Online mobile spaces do not, however, only support healthy SRHR choices. They are also platforms for sexual

abuse. Although YAL allows content, in part, to be driven by the users, it has very strict rules on what is acceptable and full-time moderators delete swearing, racial slurs and blasphemy. The technology cannot protect from sexual predation online. The framing of health messaging can either sustain or undermine sexual health.

Mobile platforms an important first step
SRHR Alliance. Accessed 12/07/2016.
http://www.rutgers.international/sites/rutgersorg/files/Operational_Research_pdf/Summaries_logo/16._Uganda.EMhealth.Amref%20S.pdf

Mobile health platforms are increasingly promoted by health organisations to provide direct access to SRHR information among young people. To learn more about their effectiveness, Amref Health Africa established a campaign that promotes Marie Stopes Uganda (MSU)'s E/M platforms (SMS portal, Helpline, U-report) in northern Uganda. The promoted E/M health platforms of MSU complement and supplement the traditional information dissemination strategies of Amref (peer education, outreach and radio among others) and open up opportunities to expand the availability of MSU platforms for young people in Amref implementation areas. The study shows that the potential is there, but improvement is necessary. Over one third of the 408 young survey respondents said they had accessed at least one of the three m-health platforms, with U-report and the SMS helpline being most popular. U-report is an SMS-based system that allows registered users to send, receive and discuss information on a number of social topics (not only SRHR). Young people heard about the m-health platforms mainly through peer educators or friends, and sometimes radio. A positive finding is that many young people who access a platform tend to use it more than once. Over 88% of the U-reporters even access this platform every week.

For youth in Northern Uganda, having a phone is still quite a privilege: more than half of the young respondents do not. Those who do have a phone often face difficulties with charging their gadgets because of limited access to electricity. Respondents to the phone interview were highly likely to recommend MSU's toll-free line to their friends. Similarly, most young people felt they could openly share their concerns through the telephone helpline or the U-platform. Young people expressed high appreciation for the toll-free platforms with immediate feedback. Although the users of m-health platforms are generally satisfied with the services provided, they also see room for improvement. Especially SMS platforms lack concise and timely feedback. Referral information for additional (face-to-face or online) SRHR information and services is still very minimal. At the organisational level, it seemed that field implementers and peer educators are not always motivated or adequately equipped for m-health interactions with young people. A possible reason for this is that they are not sufficiently involved in the project planning process from the very start. The research consisted of 408 face-to-face surveys with young people; 43 phone interviews; 132 focus group discussions; and interviews with 12 staff members.

3. Web-based evidence

Youth4life's potential not yet fully reached
SRHR Alliance. Accessed 12/07/2016.
http://www.rutgers.international/sites/rutgersorg/files/Operational_Research_pdf/Summaries_logo/7._Kenya.EMhealth.Nairobits%20S.pdf

Youth4life, an online SRHR platform for Kenyan youth developed by Africa Alive and Nairobits, was launched in October 2014. The Youth4life website attracted around 19,500 people in its first four months. Most website visitors were satisfied with the online services, but further research showed that younger and marginalised adolescents were not among them. Even though Kenya is ahead of most African countries in online development, using

online tools to communicate with and promote communication among young people about their sexual and reproductive health and rights (SRHR) is still quite a new phenomenon. The researchers explored whether and how these online tools influence the choices young people make when it comes to their sexual and reproductive health. The research was conducted in the form of an online survey among 328 youth participants; key informant interviews; and focus group discussions.

The youth4life website was considered an accessible, useful and reliable source of information on SRHR by those young people who visited the site. The most searched topics were sexual health checks, relationships with boyfriends and girlfriends, and STIs including HIV/AIDS. More than half of the visitors said they read the information section on 'sexual health' and 'life skills'. The least accessed section was the 'forum' and the section on 'growing up'. Overall, the website was positively evaluated by its visitors, but few returned. However, almost 10% of the online respondents said they visited a health clinic after learning about it from the youth4life website. This is a reasonably good score given the short time period between the website launch and the survey. The youth4life website has not (yet) reached its full potential due to many different challenges. Internet is costly, connection is only available in specific places and using it requires a certain level of literacy, thereby excluding younger and marginalised adolescents. One respondent said that the website developers should "target people from slum[s], they should use pictures from [the] slum and enable [the] website [to] be accessed by any phone". Another participant said, "the language [on the website] is friendly to educated people. It should cut across […] those who are literate and illiterate". Those young people who do have access to speedy and mobile internet preferred internet information on SRHR rather than other sources, because online platforms are considered trendier, more reliable, less judgemental, and more interactive.

Acceptability and feasibility of CyberSenga: an Internet-based HIV-prevention program for adolescents in Mbarara, Uganda
Ybarra, M.L., Bull, S.S., Prescott, T.L., Birungi, R. (2014) AIDS Care.;26(4):441-7.
http://www.ncbi.nlm.nih.gov/pubmed/24093828

Capitalising on emerging data suggesting that HIV-preventive behaviours can be positively affected by Internet-based programmes, the authors of this study developed and tested CyberSenga, an Internet-based, comprehensive sexuality education programme for adolescents in Mbarara, Uganda. 366 secondary school students were randomly assigned to either the five-lesson programme (+ booster) or a treatment-as-usual control. At a 3-month follow-up, intervention participants provided feedback on the programme acceptability. Six focus groups with intervention participants were additionally conducted after the final follow-up at 6 months. Data support a hypothesis of feasibility: despite schedule interruptions, 95% of intervention participants completed all the five modules; only 17% deviated from the once-a-week intended delivery schedule. Internet service was uninterrupted during the field period and, in general, the technology performed to specifications.

The intervention also appears to be acceptable: 94% of intervention youth somewhat or strongly agreed that they learned a lot and 93% said they were somewhat or very likely to recommend the program. Although more than two in three youth somewhat or strongly agreed that the programme talked too much about sex (70%) and condoms (75%), 89% somewhat or strongly disagreed that "I do not think kids like me should do the CyberSenga program." Feedback from focus group participants further suggested that the content was generally acceptable and did not contradict local norms in most cases. In fact, despite concerns from some local stakeholders to the contrary, information about condoms did not appear to be confusing or contradictory for youth who were abstinent. Nonetheless, some of the sexual topics seemed to be unfamiliar or uncomfortable for some participants – particularly brief references to oral and anal sex. Together, both qualitative and quantitative

data suggest that the program is a feasible and acceptable way of delivering HIV preventive information to both sexually experienced and inexperienced adolescents in Mbarara, Uganda.

Online youth want personal contact and true stories
SRHR Alliance. Accessed 12/07/2016.
http://www.rutgers.international/sites/rutgersorg/files/Operational_Research_pdf/Summaries_logo/15.Uganda_EMhealth%20S.pdf

Online solutions for sexual and reproductive health in developing countries are expanding quickly. Yet little is known about the effectiveness of these e/m health initiatives. Reach a Hand Uganda (RAHU) launched the online platform and campaign 'Sautiplus' to bring sexual health information to young people. Research findings show that young people find Sautiplus accessible and informative, although not interactive enough. Sauti means 'sound' in Swahili and refers to the campaign's slogan: 'Let's increase the sound so everybody can hear the message!' However, some messages are more popular than others. Young people were mostly interested in relationship issues and information on how to get and use contraceptives such as condoms and the pill. Only a few looked for information on sexually transmitted diseases and treatments. Most respondents (mainly young men above the age of 18) said they were satisfied about the Sautiplus website and Facebook page, although going online comes with many challenges: bad Internet connection, lack of a laptop or smartphone, lack of money to pay for an Internet cafe and the limited time they are given to go online at school.

Also, sex is a private and sensitive matter. Especially girls said they are not at ease reading information on sex in a computer lab. Young people got to know about the SautiPlus website through school outreach (25%), peer educators (23%) and Facebook advertisements (18%). Both the website and Facebook were subjected to critical analysis. The information was offered mostly as text, photo and video material. The Facebook page has 31,000 followers; it is regularly updated and there is interaction with its visitors through Facebook Messenger, although the website remains quite static. Interestingly, many young people sent messages asking directions to the organisation's offices, seeking live contact. The online survey showed that young visitors found the available referral information useful, while researchers observed that referral information was minimal and hidden in the website. The most liked posts, with the widest reach, on the Sautiplus Facebook page concerned (personal) stories about love and relationships, cheating boyfriends or girlfriends, teen pregnancies and HIV prevention. Researchers conducted 8 in-depth interviews, 8 focus group discussions; and website analysis. 135 respondents participated in an online survey.

Social Media–Delivered Sexual Health Intervention: A Cluster Randomized Controlled Trial
Bull, S., Levine, D., Black, S., Schmiege, S., Santelli, J. (2012) Am J Prev Med.; 43(5): 467–474.
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3479665/

This paper explores whether sexually transmitted infection (STI) prevention messages delivered via social media platform Facebook are effective in preventing increases in sexual risk behaviour at 2 and 6 months in the US. Although it is evidently non Africa-based, it describes an interesting approach and has therefore been included regardless. The question of the potential of social media for this purpose arose as youth are using social media regularly and are a group facing substantial risk for STIs, and although there is evidence that the internet can be used effectively in supporting healthy sexual behaviour, this had not yet been extended to social networking sites. The study was a cluster randomised controlled trial which ran from October 2010 to May 2011. Individuals (seeds) recruited in multiple settings (online, via newspaper ads and face-to-face) were asked to recruit three friends, who in turn

recruited additional friends, extending three waves from the seed. Seeds and waves of friends were considered networks and exposed to either the intervention or control condition.

The intervention consisted of exposure to Just/Us, a Facebook page developed with youth input, or to control content on 18–24 News, a Facebook page with current events for 2 months. The main outcome measures were condom use at last sex and proportion of sex acts protected by condoms. Repeated measures of nested data were used to model main effects of exposure to Just/Us and time by treatment interaction. 1,578 participants enrolled, with 14% Latino and 35% African-American; 75% of participants completed at least one study follow-up. Time by treatment effects were observed at 2 months for condom use (intervention 68% vs control 56%, p=0.04) and proportion of sex acts protected by condoms (intervention 63% vs control 57%, p=0.03) where intervention participation reduced the tendency for condom use to decrease over time. No effects were seen at 6 months. The study concludes that social networking sites may be venues for effective health education interventions. More work is needed to understand what elements of social media are compelling, how network membership influences effects, and whether linking social media to clinical and social services can be beneficial.

4. Evidence on mixed approaches

Gap between offline and online platforms
SRHR Alliance. Accessed 12/07/2016.
http://www.rutgers.international/sites/rutgersorg/files/PDF/17_Uganda_EMhealth_StraightTalk_def.pdf

From its beginnings as a UNICEF newspaper in 1993, Straight Talk has become an all-round media platform for Ugandan youth. Besides print, Straight Talk now offers radio transmission, face-to-face services in youth clinics and ICT centres, a Facebook page, and a toll-free SMS helpline. Research shows that Straight Talk has a well-established reputation and wide reach, but the various communication channels do not communicate very well with each other. The ICT centres and SMS helpline of Straight Talk Foundation (STF) seem to be quite popular among young people. All survey respondents used the SMS helpline at least once, and over 80% visited an ICT centre every week. They learnt about it through radio, friends and school outreach. The opportunity to ask questions in private, and interact with a STF radio disk jockey is especially attractive to young people.

Although 80% of all respondents have a phone, almost half say they face difficulties accessing STF services. Access to the SMS helpline is hindered by the lack of a phone or having to share one, not being able to charge the phone, or not being allowed to use it at home or in school. Access to the ICT centre is made more difficult by long waiting times, slow internet connection, restricted access to websites and user-unfriendly computers. At the ICT centres young people tend to search for information on reproductive health (50%) but also on news, entertainment and job opportunities. By comparison, the SMS helpline is used for reproductive health information in 90% of the cases. Despite the relative popularity of the ICT centres and the SMS helpline, the STF online services (website and Facebook page) are not well known among youth. Radio, ICT centres and the SMS helpline do not mention the online services frequently, and the pages are not regularly updated. Staff members also say they do not know enough about online SRHR messaging to be really effective. 338 young people responded to face-to-face surveys; 99 phone interviews; 146 took part in focus group discussions; and 9 staff members were interviewed.

Videos and text messages support sexuality education
SRHR Alliance. Accessed 12/07/2016.

http://www.rutgers.international/sites/rutgersorg/files/Operational_Research_pdf/Summaries_logo/18._Uganda.EMhealth.SNU%20S.pdf

SchoolNet Uganda (SNU) runs two electronic and mobile SRHR solutions: instructional videos for secondary school teachers to use in their classes and an SMS helpline for youth to ask personal SRHR questions. Researchers assessed the attractiveness, challenges and opportunities of these solutions among rural youth. Both the instructional videos and SMS helpline are promising, although many improvements can be made. A majority of youth who watched the instructional videos felt they learned about relevant issues in a way that was easy to understand. Also teachers felt the videos addressed real life challenges faced by young people. The topics include relationships, pregnancy, STIs like HIV, and gender-based violence. Moreover, the videos encouraged discussion. Participants felt that the videos were more appealing and detailed than teachers giving SRHR information to students. Furthermore, the SMS helpline was assessed positively because it allows youth to ask personal questions confidentially. Most youth felt the information they received through text messaging was useful, and roughly half of them found the information shared easy to understand.

However, there is room for improvement. The quality of the videos can be improved. Young people requested more videos on missing topics like body changes, personal hygiene, masturbation, HIV parent-child communication, career guidance and life skills. Rural teachers in particular are very dependent on access to the right equipment for video screening. More youth could be reached through regular video screenings, if teachers embed the videos in their classes. Uniformity in the use of instructional videos among teachers should improve. Currently, videos are showed weekly (35%), monthly (25%) or once a school term (39%), depending on the school. Some students mention that videos were screened only during the lunch break or after school, which prevent many of them from watching. Other teachers used the videos in their lessons, enabling discussion and better understanding. However, more than 40% of the teachers give minimal or non-specific referral information for additional SRHR services. Many youth are not aware there is a SMS helpline. A third of the respondents never used it for SRHR related questions and nearly half only texted once. SNU management and staff do not prioritise the SMS helpline. It takes on average three days to respond to incoming questions, despite its potential for sharing quality information in a confidential setting. Moreover, about 72% of the survey respondents who had used the SMS helpline reported receiving referrals to additional SRHR information and services, although sometimes the information was non-specific. The cost of texting might be an obstacle to access to the SMS helpline, whereas access to a mobile phone didn't seem a concern. Almost all youth use either their personal or a friends' phone. The research involved a survey of 412 young people – mainly rural residents below 18 years (63%); 13 in-depth interviews with staff, peer educators and teachers; and 12 focus group discussions with both users and non-users of the e/m health solutions.

Media Influence on Sexual Activity and Contraceptive Use: A Cross Sectional Survey among Young Women in Urban Nigeria
Bajoga, U.A., Atagame, K.L., Okigbo, C.C. (2015) Afr J Reprod Health.;19(3):100-10.
http://www.ncbi.nlm.nih.gov/pubmed/26897918

This study assessed the relationship between recent exposure to family planning (FP) messages in the media (newspaper, radio, television, and mobile phones) and use of modern contraceptive methods among women aged 15-24 years living in six cities in Nigeria. Logistic regression models were used to predict recent media exposure to FP messages and its association with sexual experience and modern contraceptive method use. About 45% of the sample had ever had sex, with only a quarter of them using a modern contraceptive method at the time of survey. Approximately 71% of the sample was exposed to FP messages in the media within the three months preceding the survey. The main sources of media exposure

were mobile phones (48%), radio (37%), and television (29%). Controlling for relevant factors, recent media exposure to FP messages predicted both sexual experience and use of modern contraceptive methods, although there were city-level differences.

Promoting Sexual Responsibility Among Young People in Zimbabwe
Kim, Y.M., Kols, A., Nyakauru, R., Marangwanda, C., Chibatamoto, P. (2001) International Perspectives on Sexual and Reproductive Health; 27 (1):11-19.
https://www.guttmacher.org/about/journals/ipsrh/2001/03/promoting-sexual-responsibility-among-young-people-zimbabwe

This paper is on a 1997-1998 multimedia campaign which promoted sexual responsibility among young people in Zimbabwe, while strengthening their access to reproductive health services by training providers. They used posters, leaflets, newsletters, a radio programme, launch events, drama, peer educators and a hotline. Baseline and follow-up surveys, each involving approximately 1,400 women and men aged 10-24, were conducted in five campaign and two comparison sites. Logistic regression analyses were conducted to assess exposure to the campaign and its impact on young people's reproductive health knowledge and discussion, safer sexual behaviours and use of services. The campaign reached 97% of the youth audience.

Awareness of contraceptive methods increased in campaign areas, but general reproductive health knowledge changed little. As a result of the campaign, 80% of respondents had discussions about reproductive health—with friends (72%), siblings (49%), parents (44%), teachers (34%) or partners (28%). In response to the campaign, young people in campaign areas were 2.5 times as likely as those in comparison sites to report saying no to sex, 4.7 times as likely to visit a health centre and 14.0 times as likely to visit a youth centre. Contraceptive use at last sex rose significantly in campaign areas (from 56% to 67%). Launch events, leaflets and dramas were the most influential campaign components. The more components respondents were exposed to, the more likely they were to take action in response. The study concludes that multimedia approach increases the reach and impact of reproductive health interventions directed to young people. Building community support for behaviour change also is essential, to ensure that young people find approval for their actions and have access to services.

Improving health, improving lives: Impact of the African Youth Alliance and new opportunities for programmes
Daniels, U. (2007) African Journal of Reproductive Health; 11(3):18-27.
http://www.bioline.org.br/pdf?rh07032

The African Youth Alliance (AYA) was a partnership to improve adolescent sexual and reproductive health, and prevent HIV/AIDS in Botswana, Ghana, Tanzania and Uganda. The AYA model was a comprehensive range of integrated interventions, implemented concurrently and at scale using a multi-sectoral approach. AYA was funded for 5 years (2000-2005) with $56.7 million from the Bill and Melinda Gates Foundation. Over 35,000,000 stakeholders were reached through media campaigns, almost 400,000 young people received Life Planning Skills training, and over 2,500,000 visits were made by young people to static clinics and outreach services. A post-test evaluation was conducted by John Snow Inc. (JSI) in 2006 and combined case-control and self-reported exposure design. Case-control design data were analysed using Propensity Score Matching (PSM), and the Self-Reported Exposure design data were analysed using PSM and Instrumental Variable (two-stage regression) (IV). The results show AYA's significant and positive treatment effects on sexual knowledge, attitudes, and behaviours. The research suggests a comprehensive, multi-component approach such as AYA's can be effective in improving some key ASRH variables.

Creating Youth-Friendly Sexual Health Services in Sub-Saharan Africa
Moya, C. (2002) Advocates for Youth.
http://www.advocatesforyouth.org/storage/advfy/documents/youthfriendly.pdf

This report describes how in most countries in sub-Saharan Africa, youth encounter significant obstacles to receiving sexual and reproductive health services and to obtaining effective, modern contraception and condoms to protect against sexually transmitted infections (STIs), including HIV. Youth-friendly services remove obstacles to sexual health care. It provides case studies of such projects from Ghana, Uganda, and Kenya. The Ghana case study, Innovate, is particularly relevant. In January 2001, the Planned Parenthood Association of Ghana (PPAG) implemented Innovate to increase young people's sexual health knowledge, access to reproductive and sexual health services, demand for and use of such services, and participation in the planning, implementation, and evaluation of programs. PPAG opened the Young and Wise Centre at its headquarters in Accra. The Centre included a youth clinic, counselling unit, main hall, library, and computer centre. It offered a range of educational, artistic, and entertainment activities.

Providing non-sexual health services (limited or expensive in the local community) enabled PPAG to also effectively deliver sexual health education and services to youth, including STI testing and treatment, HIV counselling and testing, pregnancy testing, post-abortion care and family planning services, including emergency contraception. The Centre's marketing campaign, including the brand, "Young and Wise," as well as a logo and the slogan "Be Wise," promoted the Centre's services through outreach and television, radio, print, and electronic media. Its environment, operating hours, staff attitudes, privacy, and policies on confidentiality were all youth-friendly. Trained youth (paid and volunteer) managed the Centre. Youth participated at every stage of the project, giving young people a strong sense of ownership and attracting new and return clients of varied socioeconomic background. During its first eight months of operation, the Centre provided 18,995 male and 2,337 female condoms; served 2,646 clinic clients; and counselled 102 youth, with an additional 600 to 800 counselled by telephone.

5. Other useful resources

High use of ICTs, low access to SRHR info
SRHR Alliance. Accessed 12/07/2016.
http://www.rutgers.international/sites/rutgersorg/files/Operational_Research_pdf/Summaries_logo/1._Senegal_EMhealth%20S.pdf

Research into the role of ICTs in facilitating access to SRHR information and sexual behaviour in Senegal shows that ICTs are useful communication, information and entertainment channels for vulnerable youth. Yet, these vulnerable young people (gays, lesbians, sex workers and young domestic workers) make minimal use of ICTs to access information on SRHR. As a result, ICTs are perceived as having little influence on their sexual behaviour. Young people in Senegal lack information about Sexual and Reproductive Health and Rights (SRHR) and often do not know where to access such information. Talking about SRHR issues is taboo in many families. At the same time, first sexual experiences often take place before marriage; without access to contraceptives and a lack of awareness of the risks of unsafe sex. 246 young people from vulnerable groups in four regions in Senegal were interviewed to explore whether ICTs might bridge the SRHR knowledge gap among vulnerable young people and influence their sexual behaviour.

Although all groups of vulnerable young people confirmed using ICTs, there were differences between the groups. Young domestic workers for instance said they frequently used more traditional media (radio and television). Among gays, lesbians and sex workers, the mobile

phone was used “all the time”, in their words. In practice, ICTs were hardly used as a means to access SRHR information. Only young domestic workers mentioned that they sometimes “accidentally” stumbled upon SRHR information through TV or radio programmes. Surprisingly, many of the young people were also unaware of the existence of a child helpline. A lack of interest, lack of awareness of websites or a preference for asking a health professional were mentioned as main reasons for not using ICT channels. The results of this research suggest that although young people from vulnerable groups in Senegal have access to ICTs and use them very frequently, they hardly use those channels to become informed about SRHR. To enhance access to SRHR information through ICT channels, a first step would be to increase their visibility among vulnerable groups through, for instance, targeted awareness-raising activities. Working with popular artists and traditional media is recommended. Once the channels are known, the following can be considered: make SRHR information more readily available through mobile phones by developing apps or SMS services and seeking partnerships with telecom providers; continue investing in traditional media as a means to inform youth on SRHR and seek partnerships with community radio channels; and adapt SRHR websites so that they also meet the needs of vulnerable groups.

Online Sex-Seeking Among Men who have Sex with Men in Nigeria: Implications for Online Intervention
Stahlman, S., Nowak, R.G., Liu, H., Crowell, T.A., Ketende, S., Blattner, W.A., Charurat, M.E., Baral, S.D. (2016) AIDS Behav. Epub ahead of print.
http://www.ncbi.nlm.nih.gov/pubmed/27233248

The TRUST/RV368 project was undertaken to apply innovative strategies to engage Nigerian MSM into HIV care. In this analysis, the authors evaluate characteristics of online sex-seekers from the TRUST/RV368 cohort of 1370 MSM in Abuja and Lagos. Logistic regression and generalised estimating equation models were used to assess associations with online sex-seeking. Online sex-seeking (n = 843, 61.5 %) was associated with participation in MSM community activities, larger social and sexual networks, and higher levels of sexual behaviour stigma. In addition, online sex-seeking was associated with testing positive for HIV at a follow-up visit [adjusted odds ratio (aOR) = 2.02, 95 % confidence interval (CI) = 1.37, 2.98)] among those who were unaware of or not living with HIV at baseline. Across visits, online sex-seekers were marginally more likely to test positive for chlamydia/gonorrhoea (aOR 1.28, 95 % CI 0.99, 1.64). Online sex-seekers in Nigeria are at increased risk for HIV/STIs but may not be benefiting from Internet-based risk reduction opportunities.

Correlates of mobile phone use in HIV care: Results from a cross-sectional study in South Africa
Madhvani, N., Longinetti, E., Santacatterina, M., Forsberg B.C., El-Khatib, Z. (2015) Prev Med Rep.;2:512-6.
http://www.ncbi.nlm.nih.gov/pubmed/26844111

This is a study to identify patient demographic groups least likely to use mobile phones as reminder tools in HIV care. HIV is a major disease burden worldwide. Challenges include retaining patients in care and optimising adherence to Antiretroviral Therapy (ART). The data came from a cross-sectional study at the Chris Hani Baragwanath Hospital, Soweto Township, South Africa. A comprehensive questionnaire was used to interview 883 HIV infected patients receiving ART. Logistic regression analysis was performed to identify the influence of age, gender, education level, marital status, number of sexual partners in the last three months, income level, and employment status on the use of mobile phone as reminders for clinic appointments and taking medication. Patient groups significantly associated with being less likely to use mobile phones as clinic appointment reminders were: a) patients 45 years or older, b) women, and c) patients with only primary or no schooling level. Patient

groups significantly associated with being less likely to use mobile phones as medication reminders were: a) patients 35 years or older and b) patients with a lower monthly income. In this setting being a woman, of older age, lower education, and socio-economic level were risk factors for the low usage of mobile phones as reminder aids. Future studies should assimilate reasons for this, such that patient-specific barriers to implementation are identified and interventions can be tailored.

6. Additional information

Author

This query response was prepared by **Tessa Hewitt**

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