



Pilot plan

Introduction and concept

While mobile phone communication is emerging rapidly in Sub-Saharan-Africa with up to 71% mobile penetration¹, access to healthcare information lags behind. SMS Doctors is a non-profit organization providing easily-accessible and cost-effective healthcare information through SMS in Zimbabwe. The services of SMS Doctors will be available through mobile phones via standard text messaging service. SMS Doctors offers the possibility to enquire specific healthcare information directly or subscribe for general information service. Selected subscribers will receive free health information text messages and will then have the facility to reply and ask questions related to that particular topic. Incoming messages will be incorporated on a digital platform accessible for Zimbabwean and Dutch medical students and doctors. Supervised by doctors, the students will discuss the responses to these questions, creating an international peer-reviewed network for answering specific healthcare questions. Each response having been reviewed, the information will be sent back through SMS.

In this pilot, we would like to apply this principle in information provision for sexual and reproductive health issues in high schools in Harare.

Considerations

With a physician density of 0.08 medical doctors per 1000 population², the majority of the population in Zimbabwe does not have access to primary healthcare and basic healthcare information. HIV/AIDS remains a considerable hazard in Zimbabwe as adults HIV/AIDS rate is 16.74%³. It is generally accepted that HIV infection often coexists with another Sexually Transmitted Diseases (STD). The same risk factors for getting an STD can also put you at greater risk for getting HIV. Moreover, a disruption of the skin barrier caused by an STD may allow HIV to enter the body more easily. Therefore, prevention and treatment of STD's is a crucial for diminishing HIV infections.

In Zimbabwe, adults generally have more knowledge than young people about STDs, according to a 2011 Zimbabwe Demographic and Health Survey⁴ and a May 2001 study by the United Nations Children's Fund⁵. The UNICEF study suggests that more than two-thirds of Zimbabwe's adults have heard of gonorrhoea and syphilis compared with 50 percent of out-of-school youth. The study also found that youth know little about STIs and the signs or symptoms of infection. Only 21 percent of women under age 20 were able to name two or more common STI symptoms, and their knowledge was confined to syphilis and gonorrhoea. Young people 15 to 24 years old in Zimbabwe are the group most vulnerable to HIV and other STIs. Factors that increase their risks of exposure include

- Early sexual experimentation;
- Limited access to reproductive health services, including treatment for STIs, information about sexual health, and advice on responsible behavior;
- Harmful cultural practices;
- Social and urban changes in values;
- Loss of traditional support systems; and
- Economic insecurity.



Despite of the increased risk for this age group, a social stigma is a significant obstacle for appropriate care. Despite initiatives by the Ministry of Health and its partners to encourage youth to attend their local health service providers and seek help, the challenges with this age group are numerous. Sexual education both in schools and at home is still a taboo for many. Furthermore, access to services such as HIV testing requires that individuals under sixteen years of age have an adult accompany them.

Since Zimbabwean adolescents have access to mobile communication but tend to avoid seeking information or help for sexual issues, this group could benefit most from an SMS health information service. Sexual health especially is an area that has many unanswered questions for secondary students in Zimbabwe, resulting in a lack of awareness about sexual health issues that may be a hazard for HIV infections. Anonymous information provision by SMS would be a suitable service for health literacy enhancement that may help prevent HIV/AIDS.

Target group

- Zimbabwean high school students
- Zimbabweans with access to mobile phones, deprived of basic sexual health information due to social, geographic or financial issues.
- Zimbabweans dealing with privacy sensitive healthcare questions.

Implementation

The pilot will run in five high schools in and around Harare (Zimbabwe):

Gateway High School

Chisipite High School

St John's High School

High Achievers Coach

St Georges High School

Schools will be approached individually and once permission has been sought, the concept will be explained and promoted to the student body through informal sessions held with the students as well as through posters and flyers. The possibility to ask questions will be offered to improve understanding of the project.

40 Medical reviewers (20 VUmc, 20 UZ) will be recruited to reply to sexual health questions. Zimbabwean doctors will be approached through the department of Community Medicine to contribute to the project by monitoring students' replies. Medical reviewers will be assigned to shifts in order to assure timely information provision. At least three medical reviewers will review each case, one of which at least will be a doctor.

Application



A secure digital application will be developed with a built-in SMS gateway for communication from Zimbabwean patients (mobile) with medical reviewers (site). The application will include several functions for interaction, making it possible for medical reviewers and doctors to comment on each other's replies and to provide adequate and medically sound answers for each case.

Goals

- Providing reliable and anonymous healthcare information to high school students in Zimbabwe
- Involving medical students and doctors in healthcare problems in Sub-Saharan Africa
- Creating an international network of medicine students and doctors making an effort to use their expertise to impact healthcare in Sub-Saharan Africa.

Strengths

- Use of pre-existing technology
- Entirely anonymous and confidential
- Peer reviewed to ensure information sent out is accurate
- Easily accessible information with little cost involved - health information on the go
- Interactive forum where users can get answers to specific questions related to the information sent out
- Network strengthening between medical faculties in Zimbabwe and in the Netherlands
- Exposing medical students to the concept of peer review led discussion
- Exposing medical students to cases in clinical practice
- Empowering medical students by invoking a positive sense of community engagement and service

Weaknesses

- Users will be charged through their network provider for each text message they send
- Reviewers will require access to internet connection in order to view and comment on incoming questions and comments from users

Project management approach

SMS Doctors is a collaboration between medical students from University of Zimbabwe (Harare, Zimbabwe) and VU University Medical Center (Amsterdam, the Netherlands). Jonathan Fernandes (ZIM), Anne Gehrels (NL), Auxilia Govore (ZIM), Robin Jansen (NL) and Arend Koopmans (NL) have overall responsibility for managing and executing this project according to this project plan. Both Dutch and Zimbabwean student associations are contributing to the project in attracting medical reviewers and in the project's promotion. ZIMSA (Zimbabwean Medical Students Association) will put forward Zimbabwean medical



student reviewers and IFMSA-NL (International Federation of Medical Student Associations' - the Netherlands) will put forward Dutch medical student reviewers.

About us

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Cooperating organisations

Zimbabwe

University of Zimbabwe

Zimbabwe Medical Student Association

The Zimbabwe Medical Students Association (ZIMSA is an organisation that acts as a representative body for all medical students studying in Zimbabwe.

Netherlands

VU University Medical Center Amsterdam

International Federation of Medical Student Associations VUmc (IFMSA-VUmc)

International Federation of Medical Students' Associations - The Netherlands, better known as IFMSA-NL is a national network of medical students working to a common goal of improving Global Health.



References

¹Blycoft Limited. (2014). *Africa & Middle East Mobile Factbook 2Q 2014*. Retrieved September 12, 2015, from http://www.africantelecomsnews.com/resources/Factbook_Africa_14Q2_form.shtml#Download

²The World Factbook 2011. Washington, DC: Central Intelligence Agency, 2011. Retrieved February 6, 2016, from <https://www.cia.gov/library/publications/the-world-factbook/index.html>

³The World Factbook 2014. Washington, DC: Central Intelligence Agency, 2014. Retrieved February 6, 2016, from <https://www.cia.gov/library/publications/the-world-factbook/index.html>

⁴Central Statistical Office, 2011 Zimbabwe Demographic and Health Survey (Harare, Zimbabwe: Central Statistical Office, 2011).

⁵UNICEF, Countrywide KABP Baseline Survey on Tobacco, Alcohol and Drug Abuse and Other Health Related Behaviour Among 10–19-Year-Olds in Zimbabwe (Bulawayo, Zimbabwe: UNICEF, May 2001).