

# Using Text Messages to Improve Knowledge of Reproductive Health In Ghana



Improving adolescents' access to information about safe sex practices is crucial for safeguarding the health of future generations. In Ghana, Innovations for Poverty Action and researchers evaluated the impact of a program that provided young women with information on reproductive health via text messages. The study found that the program improved young women's knowledge about contraception, sexually transmitted infections, and other reproductive health topics.

## Policy Issue

Although progress has been made over the past 50 years in global health, adolescent reproductive health remains a challenge. In 2013, 36.4 million women became mothers before age 18, and sub-Saharan Africa had the highest prevalence of teenage pregnancy in the world. Adolescent pregnancies can be unsafe for mothers and children, resulting in higher levels of maternal and infant illness and death.<sup>[1]</sup> According to the WHO, providing access to modern contraceptives for all women who want them could prevent 70 percent of unintended pregnancies.<sup>[2]</sup>

Unprotected sex is also a risk factor for contracting HIV. One quarter of new HIV infections in sub-Saharan Africa are among people under 25, and almost all are due to unprotected sex. Encouraging the adoption of safer sex practices among youth is critical for ensuring the health and safety of future generations. Programs that aim to educate youth via text message are promising, since they are inexpensive, private (adolescents are informed via their personal phones), and adaptable to many contexts and audiences. In addition, these programs allow experts to generate high-quality content that is then uniformly delivered to a large number of recipients.

## Evaluation Context

Forty-three percent of all girls in Ghana have sexual intercourse before the age of 18, and unwanted pregnancy is common. Forty-two percent of 15-19-year-old girls who had ever had sex have been pregnant and more than three-fourths of girls who gave birth said they had not wanted the pregnancy at the time of conception.<sup>[3]</sup> Many girls who become pregnant drop out of school, affecting their education and employment opportunities.



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### COUNTRY

Ghana

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### PROGRAM AREAS

Education, Health

### TOPICS

Family Planning & Contraceptive Use, Information & Communications Technology (ICT), Mobile Health, Women & Girls, Youth

### TIMELINE

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Ghana's schools have been providing family life education in junior high schools and senior high schools since 1996. Despite this progressive approach, teenagers say they get their information about HIV/AIDS and contraception from mass media sources like radio, TV, and the Internet rather than from teachers, parents, or friends.<sup>2</sup> The information they get is not always reliable: a recent national survey of adolescent health found that adolescents lacked fundamental knowledge about how to prevent pregnancy and sexually transmitted infections (STIs). For example, more than half of adolescents aged 15-19 do not know that a girl can still become pregnant if she washes herself after sex.<sup>[4]</sup> Without accurate information, sexually active adolescents may not properly use effective options for safe sex like condoms.

Before the study, girls participating in the program were surveyed to measure their knowledge about reproductive health, including STIs and contraception. The participants had an average knowledge score of 29 percent.

## Details of the Intervention

Researchers collaborated with Innovations for Poverty Action to evaluate the impact of sharing information about contraception, STIs, and other health topics over mobile phones on young women's knowledge about reproductive health. Thirty-four secondary schools were randomly assigned to participate in one of three 12-week programs:

**Interactive text messages:** Girls in this group were sent text messages with quiz questions about reproductive health once a week. If girls responded to the messages with correct answers, they were sent airtime credit as a reward.

For example, one week, participants in the interactive group received the following text message:

"SMART quiz: How often is the Pill taken (the birth control Pill)? Reply SMT1 for only after a woman has sex or reply SMT2 for once a day, everyday."

If the participant responded correctly, she would receive the reply:

"SMART answer: Right! The Pill is taken once a day whether or not a woman has sex. If you choose to use the Pill as your contraceptive method then you must take it everyday or it is NOT effective. You can't just take it whenever you please! It contains low and safe doses of hormones and prevents pregnancy."

If the participant answered incorrectly, she would receive the same response, except that "Right!" was replaced with "Sorry!" If the participant never answered, she would receive the response text message at the end of the week.

**One-way text messages:** Girls in this group were sent text messages about reproductive health topics once a week.

Participants in this group received a text message with the same information as in the "SMART

answer” message above, but without the preliminary quiz.

**Comparison:** Girls were sent text messages about malaria once a week.

## Results and Policy Lessons

### *Preliminary findings:*

Knowledge of reproductive health improved for both girls receiving one-way text messages as well as those receiving interactive text messages compared to the comparison group.

After receiving the text messages for three months, the girls were surveyed again on the same topics. Girls who received the interactive text messages had an average knowledge score of 57 percent; those who received the one-way group had an average of 44 percent; and those in the comparison group scored an average of 33 percent. Fifteen months later, the girls had retained much of the knowledge they had gained; those in the interactive group scored 54 percent and girls in the one-way group scored 45 percent, whereas girls in the comparison group scored 42 percent.

One year after the intervention ended, sexually active girls in the interactive and the one-way groups were less likely to have reported a pregnancy than sexually active girls in the comparison group. However, this self-reported measure might be imprecise, as girls who received text messages might have felt pressure to underreport their sexual activity. Conversely, they might also have felt more openness to sexual health topics as a result of the text message campaign, making them more likely to be honest. To minimize these effects and encourage honesty, the research team administered the survey on tablet computers, enabling the adolescents to complete the surveys privately.

These results indicate that sharing information via text messages could improve girls’ reproductive health.

## Sources

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