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Impact of a Text Messaging Program on Adolescent Reproductive Health: A Cluster–Randomized Trial in Ghana*

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Abstract

Objectives. To evaluate whether text-messaging programs can improve reproductive health among adolescent girls in low- and middle-income countries.

Methods. We conducted a cluster–randomized controlled trial among 756 female students aged 14 to 24 years in Accra, Ghana, in 2014. We randomized 38 schools to unidirectional intervention (n=12), interactive intervention (n=12), and control (n=14). The unidirectional intervention sent participants text messages with reproductive health information. The interactive intervention engaged adolescents in text-messaging reproductive health quiz games. The primary study outcome was reproductive health knowledge at 3 and 15 months. Additional outcomes included self-reported pregnancy and sexual behavior. Analysis was by intent-to-treat.

Results. From baseline to 3 months, the unidirectional intervention increased knowledge by 11 percentage points (95% confidence interval [CI]=7, 15) and the interactive intervention by 24 percentage points (95% CI=19, 28), from a control baseline of 26%. Although we found no changes in reproductive health outcomes overall, both unidirectional (odds ratio [OR]=0.14; 95%

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