

Financially empowering school-age girls in resource-poor nations can prevent HIV and herpes infections

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Findings of research published Online First by the *Lancet* suggest that financially empowering school-age girls and their families can have substantial effects on their sexual and reproductive health, reducing both HIV and HSV-2 infections. The study is by Dr Berk Özler, The World Bank; Prof Richard Garfein and Dr Craig McIntosh, University of California at San Diego; and Dr Sarah Baird, George Washington University, USA.

Lack of education and an economic dependence on men are often suggested as important risk factors for [HIV](#) infection in women. In this new study, the authors assessed the efficacy of a cash transfer programme to reduce the risk of sexually transmitted infections in young women.

Never-married women aged 13 years were recruited from 176 enumeration areas in the Zomba district of Malawi and randomly assigned by area to receive cash payments (intervention group) or nothing (control group). Intervention areas were further randomly assigned to conditional (school attendance required to receive payment) and unconditional (no requirements to receive payment) groups. Participants in both intervention groups were randomly assigned by a lottery to receive monthly payments ranging from US\$1 to \$5, while their parents were independently assigned with computer-generated random numbers to receive \$4. Behavioural risk assessments were done

at baseline and 12 months; serology was tested at 18 months. The primary outcomes were prevalence of HIV and herpes simplex virus 2 ([HSV-2](#)) infection.

88 areas were assigned to receive the intervention and 88 served as controls. For the 1289 individuals enrolled in school at baseline with complete interview and biomarker data, weighted HIV prevalence at 18 month follow-up was 1.2% (seven of 490 participants) in the combined intervention group versus 3.0% (17 of 799 participants) in the control group, showing a two-thirds reduction in the risk of HIV infection in the intervention groups. HSV-2 prevalence was also lower in the intervention groups at 0.7% (5 of 488 participants) versus 3.0% (27 of 796 participants) in the control group, suggesting that the intervention reduced the risk of HSV-2 infection by three quarters. There was no significant difference between conditional versus unconditional intervention groups for prevalence of HIV or HSV-2 infection. For individuals who had already dropped out of school at baseline, no significant difference was detected between intervention and control groups for weighted HIV prevalence (10% vs 8%) or weighted HSV-2 prevalence (8% vs 8%).

The authors say: "Poor education, poverty, and gender inequalities are postulated to be important determinants of young women's vulnerability to HIV infection. However, to date, no randomised controlled trial of a structural intervention has shown a significant effect on HIV incidence. The Zomba cash transfer programme reduced the prevalence of HIV and HSV-2 infection at 18 month follow-up in school-age girls who were enrolled in school at baseline. These effects are supported by changes in self-reported sexual behaviour. The findings suggest that financially empowering school-age girls and their families can have substantial effects on their sexual and reproductive health."

In a linked Comment, Dr Nancy Padian, School of Public Health,

