



FID Series

"Key impact results"

Reducing menstrual health stigma in Madagascar to improve school outcomes for young girls

How can adolescent girls' access to menstrual health and hygiene be improved to support their academic performance? This is precisely the challenge taken on by the [Kilonga program](#), developed and implemented by CARE France and CARE Madagascar in partnership with the Madagascar Ministry of National Education. Researchers from the Paris School of Economics (PSE) has since conducted a three-phase study to evaluate the impact of this project. The Kilonga program is based on an innovative approach that combines improving menstrual health and hygiene facilities and practices with a "Young Girl Leaders" strategy to raise awareness and empower young women, aimed at breaking the taboos and stigma around menstruation. The initiative aims to help adolescent girls cope better with their periods and thus minimize the impact on their academic performance. An experimental evaluation was conducted to assess the effects of this approach on adolescent girls' menstrual health, well-being, school attendance and learning, and to determine the most effective strategy for wider scale-up funded by CARE own funds and FID.

Research team

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Key impact results

The study results ran contrary to the program's initial hypothesis, demonstrating no measurable effect on school attendance among the girls. However, a different mechanism was at work that significantly improved their academic performance: by introducing better menstrual hygiene facilities and practices, and reducing menstrual stigma, the Kilonga program reduced girls' stress and improved the social climate at school, and the evidence suggests that these psychosocial changes, rather than more time in school, explain the gains in learning.

+17 %

Increase in the likelihood of promotion to the next grade, compared with the control group, from a baseline of 51%.

+22 %

Increase in the proportion of girls on the combined program who felt able to speak openly about menstruation.

+0.56 standard
deviation

Improvement in girls' menstrual hygiene practices, such as using a hygienic menstrual product, in schools with Young Girl Leaders.

-2.3 bpm

Decrease in average heart rate in beats per minute, indicating lower stress levels among the program's beneficiaries.

Impact study methodology

The study is based on an experimental evaluation conducted between 2021 and 2023 among 2,256 adolescent girls attending 140 rural schools in the Amoron'i Mania region of Madagascar. The schools were randomly assigned to different groups: a control group (35 schools), a group receiving the WASH program (35 schools), and two groups combining WASH and Young Girl Leaders (35 schools each), using two different approaches to information dissemination: formal and informal.

The impact evaluation addressed three research questions

01

Does the program improve access to menstrual health and hygiene resources?

02

Does the program reduce the stigma around menstruation and improve adolescent girls' well-being?

03

Does the program improve adolescent girls' learning outcomes and school attendance?

1. Does the program improve access to menstrual health and hygiene resources?

The program improves menstrual health knowledge and practices (menstrual hygiene practices **+0.36 standard deviations** with the WASH program alone) by providing better sanitation facilities and reusable sanitary products, and by raising awareness. The "Young Girl Leaders" play an essential role in transforming knowledge into behavioral change: when combined with the WASH component, a significant improvement in both general hygiene (**+0.29 standard deviations**) and menstrual hygiene (**+0.56 standard deviations**) was observed. The benefits also extend to the mothers, whose knowledge and attitudes towards menstruation improve.

2. Does the program reduce the stigma around menstruation and improve adolescent girls' well-being?

The program helps to shift social norms, reducing menstrual stigma by **0.6 standard deviations** on objective measures (lab-in-the-field exercises and enumerator observations): girls are more comfortable talking about their periods and feel more included at school, with a measurable reduction in stress levels (**-2.3 bpm on average**). The Young Girl Leaders program further amplifies this impact: on girls' survey responses, stigma falls by **0.80 standard deviations**, compared with **0.42** for the WASH program alone (on the objective measures, both groups improve by similar amounts). Girls in schools with Young Girl Leaders were **22%** more likely to choose to explain a menstruation topic in front of their schoolmates. The program affects boys in two contrasting ways: their attitudes become more progressive (**+0.35 standard deviations**), and overall bullying reported by girls fell, as part of a wider improvement in the school's psychosocial environment that also included stronger social connections between students. At the same time, more of the teasing girls experience is now about menstruation, coming from boys (**+0.23 standard deviations**, from a low base). This may reflect increased visibility around the issue and highlights the need for initiatives that also target boys and school staff.

3. Does the program improve adolescent girls' learning outcomes and school attendance?

The program significantly improves learning outcomes but has no effect on school retention rates among girls. Academic and cognitive skills improved by **0.15 standard deviations**, with strong gains in reading and mathematics (**+0.13 to +0.25 standard deviations**), resulting in a **17%** increase in the likelihood of promotion to the next grade. The program improves the quality rather than the quantity of girls' time at school, consistent with lower stress and a better psychosocial environment, while school dropout likely remains driven by economic and social barriers beyond the scope of this initiative.

Perspectives

In light of these results, FID has been supporting a new phase of research to separate the effects and cost-effectiveness of the infrastructure component from those of the teacher-training and Young Girl Leaders component and determine the most effective and easily replicable model. CARE, J-PAL and the research team are exploring with the Ministry of National Education and the World Bank how the program could be integrated into the World Bank Group's East Africa Girls' Empowerment and Resilience Project (EAGER), rolled-out in program (EAGER), which covers 16 of Madagascar's 23 regions.

Find out more

Recherche

Abdel-Sater, R. ; Beaujeu, M. ; Chinal, M. ; Durand, P-Y. ; Niedzialkowski, J. ; Zanuso, C.

[“Menstrual Health Initiatives in Madagascar | Fund for Innovation in Development \(FID\)”](#)

Edition of Journal "Question de Développement", 2025.

Diaz, O. ; Iannuzzi, M. ; Macours, K. ; Webb, D.

“Scaling an Effective Menstrual Hygiene Program in Madagascar”

Policy Pilot, J-PAL.

Macours, K. ; Vera Rueda, J. ; Webb, D.

“Menstrual Stigma, Hygiene, and Human Capital: Experimental Evidence from Madagascar”. Research Paper, PSE, 2026.

Media

[“Interview: a researcher discusses the impact on girls' education of our project aimed at breaking the taboos around periods”](#).

Care, January 2026.

