



Effects of a community-driven water, sanitation, and hygiene intervention on diarrhea, child growth, and local institutions: a cluster-randomized controlled trial in rural Democratic Republic of Congo

First Submission: RR_COD_2024_234

Xuerong Lei, Luis Eduardo San Martin
reproducibility@worldbank.org

December 02, 2024

This review verifies the reproducibility of the exhibits included in the paper “Effects of a community-driven water, sanitation, and hygiene intervention on diarrhea, child growth, and local institutions: a cluster-randomized controlled trial in rural Democratic Republic of Congo”.

Contents in this review:

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Main findings

- The code was successfully executed on a new computer after:
 1. Setting global path in *Project_MasterDofile.do*.
- The output demonstrates consistent stability across multiple runs. Specifically, executing the code two times consecutively yielded identical results.
- The code takes approximately 2 minutes to run.
- We conducted our reproducibility analysis based on the paper shared by the authors via OneDrive on November 21, 2024.
- Every exhibit has been reproduced accurately.
- **Reproducibility Summary:**
 - **Data:** Some data is not yet publicly available but is expected to be made available through the World Bank Microdata Library in the future.
 - **Code:** All code files (from cleaning to analysis) are included in the reproducibility package.
 - **Outputs:** All outputs are generated by code included in the reproducibility package.
 - **Reproducibility verification:** Reviewers used data provided directly by the authors to conduct the reproducibility verification, and this is not included in the public reproducibility package. The reviewers did not verify if publicly available data matches the data provided by the authors.
 - **Dependencies environment:** For one dependency (*igrowup*), the reviewers used dependency files provided by the authors. For all other dependencies, the reviewers created a new environment for dependencies using the latest versions available for each dependency at the moment of the review.

List of exhibits and reproducibility status

Results in the Main Section of the Paper

- **Table 1** Does not apply: the exhibit does not show data analysis results.
- **Table 2** Reproduced.
- **Table 3** Reproduced.
- **Table 4** Reproduced.

Results in the supplemental materials

- **Table S1** Reproduced.
- **Table S2** Reproduced.
- **Table S3** Reproduced.
- **Table S4** Reproduced.
- **Table S5** Reproduced.
- **Table S6** Reproduced.
- **Table S7** Reproduced.
- **Table S8** Does not apply: the exhibit does not show data analysis results.
- **Table S9** Does not apply: the exhibit does not show data analysis results.

Reproduction Environment

Paper exhibits were reproduced in two computers with the following specifications:

- Computer 1:
 - OS: Windows 11 Enterprise, version 23H2
 - Processor: 11th Gen Intel(R) Core(TM) i5-1145G7 @ 2.60GHz 1.50 GHz
 - Memory available: 15.7 GB
 - Software version: Stata 18.0 MP
- Computer 2:
 - OS: Windows 10 Enterprise, version 22H2
 - Processor: Intel(R) Xeon(R) Gold 6226R CPU @ 2.90GHz 2.90 GHz (2 processors)
 - Memory available: 32 GB
 - Software version: Stata 18.0 MP