README

Data and Code for "Do Patients Value High-Quality Medical Care? Experimental Evidence from Malaria Diagnosis and Treatment"

by Carolina Lopez, Anja Sautmann, and Simone Schaner (January 2024)

Overview

This document provides information needed to replicate the results in "Do Patients Value High-Quality Medical Care? Experimental Evidence from Malaria Diagnosis and Treatment".

The folders included in this replication package are the following:

- **Survey_Instruments**
- **Data**
- **Do_Files**
- **Tables**
- **Figures**

Data, Do_Files, Tables, and Figures should be contained in the same folder (e.g. the folder they were archived in) in order to run the analysis .do files below.

Computational requirements

Software Requirements: Stata version 14.2 or higher required. The guidelines below, sourced from https://www.stata.com/products/compatible-operatingsystems/, outline computational requirements.

Platforms

Stata for Windows®

- Windows 11*
- Windows 10 *
- Windows Server 2022, 2019, 2016, 2012R2 *

  * Stata requires 64-bit Windows for x86-64 processors made by Intel® or AMD (Core i3 equivalent or better)
  Find out if your OS is 64-bit compliant.

Stata for Mac®

- Mac with Apple Silicon or Intel processors
- macOS 11.0 (Big Sur) or newer for Macs with Apple Silicon and macOS 10.13 (High Sierra) or newer for Macs with Intel processors

Stata for Linux

- Any 64-bit (Core i3 equivalent or better) running Linux
- Minimum requirements include the GNU C library (glibc) 2.17 or better and libcurl4
  - Check the output of **ldd -v** within a terminal
- For xstata, you need to have GTK 2.24 installed

Hardware requirements

Package	Memory	Disk space
Stata/MP	4 GB	2 GB
Stata/SE	2 GB	2 GB
Stata/BE	1 GB	2 GB

Stata for Linux requires a video card that can display thousands of colors or more (16-bit or 24-bit color)

Packages needed for tables and figures: pdslasso, lassopack, estout, esttab, eststo, estadd, estpost, missings, distplot, and swindex. They are included in the ado folder (Do_Files/ado).

Memory and Runtime Requirements

The analyses can be run on a standard desktop computer. The replicator should expect the code to run for about ~45 minutes.

The creation of the bootstrap files can take a substantial amount of time, which will depend on your computational environment (~6 minutes under authors' computational environment). Line 63 in "LSS_info_master_data_analysis.do" starts the bootstrap sampling; you will need to run this code before reproducing tables and figures that use bootstrapped standard errors.

Folders and Contents

A. Survey Instruments

Contains all survey instruments used for primary data collection.

B. Data

The top folder contains 6 datasets in Stata format.

- **LSS_info_CSComCensus_clean.dta:** A census of the clinics included in the study, carried out in May 2016. Includes information on total reported caseloads, malaria caseloads, clinic testing, and pharmacy capabilities. *Instrument*: DocPat-ClinicCensus-FR (in French).
- **LSS_info_CSComs_Agent_Training_corrected.dta:** Dataset that includes the number of staff per clinic who attended the training (administrative records).
- **LSS_info_DocPat_analysis_datasets_allcont.dta:** The constructed dataset used in the main analysis, collected in enumerator clinic visits (6 per clinic). Datasets were merged at the patient level:
  1. Day-of clinic records: clinic information filled out by the enumerator in the morning of the visit. *Instrument:* MorningCSComID_Questionnaire (variables with suffix _m)
  2. In-clinic patient survey: entry and exit interviews with patients at the clinic. *Instrument*: CSComPatientInterview_Questionnaire
  3. Home survey: home follow-up with subset of patients. *Instrument:* HomePatientInterview_Questionnaire (variables with suffix _h)
  4. Intervention schedule: treatment assignment for each clinic-day ("official schedule") (variables with suffix _os).
  5. Internal records: administrative records on voucher redemption from intervention officers' records on vouchers redeemed, including name of the patient which was used to match to the survey (variables with suffix _pv -patient voucher- and _dv -doctor voucher)
- **LSS_info_DoctorEndlineInterview_allcont.dta:** Endline interview with up to three providers (including head of the clinic) treating patients at the clinic that day, carried out after the intervention was concluded in December 2016/January 2017. *Instrument*: DoctorEndlineInterview_Questionnaire
- **LSS_info_PreTest_Doctors_individual_level_allcont.dta:** We administered a pre-training test to all healthcare providers who attended the training. The test included questions on the providers' knowledge of topics covered in the basic training, such as recommended malaria treatments and symptoms of severe malaria. *Instrument:* PreTest_Doctors_Training

- **LSS_info_PostTest_Doctors_individual_level_allcont.dta:** In addition to the variables in "LSS_info_PreTest_Doctors_individual_level_allcont", the post-training test additionally included topics covered only in the "extended training" treatment. *Instrument:* PostTest_Doctors_Training

Relevant Sample

Our enumerators logged 2753 clinic visits during the clinic survey. Our analysis sample includes patients/respondents who met the following criteria: consented to the survey (2 observations excluded), the patient was present at the clinic (0 observations excluded), the clinic visit was for an acute illness (neither preventive care nor follow-up visit for earlier treatment, 442 observations excluded), and the patient had at least one of the following symptoms: fever; chills and/or excessive sweating; nausea, vomiting or diarrhea; poor appetite, unwilling to eat or to breastfeed; headache; cough; weakness, fatigue, or reduced consciousness (31 observations excluded). In addition, we only include in the analysis those observations that satisfy the following: complete clinic intake interview (61 observations excluded), the name of the respondent from the intake interview was confirmed in the exit interview (5 observations excluded), and the respondent was available to continue with the clinic exit interview (157 observations excluded). In addition, we excluded observations from two clinics in one stratum where one of the clinics had to be replaced after the training period ended, leaving a final sample of 58 clinics in 29 strata. This leaves us with a final clinic survey sample of N=1973.

Variables Construction

All variables of this paper are explained in the main text. In particular, the details of the creation of the satisfaction indexes are included in Appendix C2. Additionally, the details of some variables used in this paper can be found in Appendix B4 of our companion paper, Lopez (2022). All raw variables are included in the shared datasets and do files of tables and figures show how the final variables are created.

C. Do_Files

Contains Stata .do files that replicate the data analysis (main paper and appendix).

"LSS_info_master_data_analysis.do": This is in the top-level folder. **To run all the analysis, open this do file and set the path in line 28 to point to the folder on your computer** that contains this archive. Running this .do file calls all the .do files needed to create the tables and figures in the paper, which are organized into subfolders:

- Subfolder "Stata admin files"
  - "LSS_TablePrograms.do": In line 44, "LSS_info_master_data_analysis.do" creates all the programs needed to create the tables.
  - "LSS_info_config_tables.do": In line 56, "LSS_info_master_data_analysis.do" add formatting required for tables in .tex and all footnotes.
  - "LSS_info_make_bootstrap_repsets.do": In line 63, "LSS_info_master_data_analysis.do" creates all the files to run bootstrapped regressions.
- Subfolder "Figures"
  - Contains codes to create all the figures of the paper and the appendix, these additional do files are called from "LSS_info_master_data_analysis.do".
- Subfolder "Tables"
  - Contains codes to create some tables of the paper and the appendix, these additional do files are called from "LSS_info_master_data_analysis.do"

D. Tables

The .do files export tables in TeX format to the folder *Tables*. Contains .tex files reproducing all the tables in the paper and appendix. Notice that the name of the .do file is the same as the name of the output.

Table #	Program	Line Number in LSS_info_master_data_analysis.do
Main Tables		
1	doc_balance_pre_training	72
2	doc_post_training_trained	78
3	doc_mal_testing	86-88
4	doc_treat_allocn	94-96
5	doc_patient_satisfaction	102-104
6	doc_patient_satisfaction_priorhet_match	110-112
Appendix A		
A1	doc_control_group	169-171
A2	pat_implementation	176-178
A3	sample_selection	183-185
A4	pat_balance	190-192
A5	mal_prob_probit	197-199
A6	doc_treat_allocn_inter	204-206
A7	doc_num_meds	211-213
A8	doc_patient_satisfaction_comp	218-220
A9	doc_patient_satisfaction_inter	225-227
A10	got_wanted_priorhet_match	233-235
Appendix B		
B1	doc_post_training_trained_nocont	80
B2	doc_mal_testing	86-88 (output name: doc_mal_testing_nocont)
B3	doc_treat_allocn	94-96 (output name: doc_treat_allocn_nocont)
B4	doc_patient_satisfaction	102-104 (output name: doc_patient_satisfaction_nocont)
B5	doc_patient_satisfaction_priorhet_match	110-112 (output name: doc_patient_satisfaction_priorhet_match_nocont)
B6	got_wanted_priorhet_match	233-235 (output name: got_wanted_priorhet_match_nocont)

E. Figures

The .do files export figures in PDF format to the folder *Figures*. The folder contains the figures produced by the do files as well as one figure included in the paper not created as part of the data analysis (intervention schedule). Notice that the name of the .do file is the same as the name of the output.

Figure #	Program	Line Number in LSS_info_master_data_analysis.do
Main Figures		
1	bar_misallocation	122-124
2	Not empirical	
3	bar_doc_testing	129-131
4	lpoly_testsXpredpos_bootstrap	136-138
5	bar_impact_di_pat_knowledge	143-145

6	cdfs_patient_satisfaction	150-152
Appendix A		
A1	lpoly_satisfactionXpredpos_bootstrap	162-164

Output

To make it easy for the replicator to compile all the files, we have added LSS_info_main&appendices_replication.tex which include all the figures and tables of the analysis, as well as the pdf output from these files.

References

Lopez, Carolina, Anja Sautmann, and Simone Schaner. 2024. "Do Patients Value High-Quality Medical Care? Experimental Evidence from Malaria Diagnosis and Treatment"

Lopez, Carolina, Anja Sautmann, and Simone Schaner. 2022. "Does Patient Demand Contribute to the Overuse of Prescription Drugs?" American Economic Journal: Applied Economics, 14 (1): 225-60.

Data Availability Statement

"Do Patients Value High-Quality Medical Care? Experimental Evidence from Malaria Diagnosis and Treatment"

The data used in this study are confidential and cannot be accessed by third parties at this time. The data will be made publicly available once all personally identifiable information (PII) has been properly de-identified, as has been the data of this package. We are committed to ensuring the privacy and security of the data. If any replicators identify a PII variable that was missed during the deidentification process, we kindly request that they notify us immediately so that we can correct the datasets.

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