READ ME

The code in this replication package allows for replication of the results in "**When a Doctor Falls from the Sky: The Impact of Easing Doctor Supply Constraints on Mortality**" using Stata. One master file runs all of the code to generate the data for the main paper and appendix tables and figures. The replicator should expect the code to run for less than 10 minutes. The survey data used to support the findings of this study have been deposited in the AEA Data repository (openicpsr-181581). The data were collected by the author, and are available under a Creative Commons Non-commercial license.

Additional data:

Shapefiles used in generating the map in Figure A.1 in the Online Appendix are from the Nigerian Demographic and Health Surveys (National Population Commission and ICF International 2014). These data are available at https://dhsprogram.com/data/dataset/Nigeria_Standard-DHS_2013.cfm?flag=1. For how to request access see: https://dhsprogram.com/data/Access-Instructions.cfm. The code used in generating the map is included in the package.

Data used in the Table in Appendix C come from the following sources: Lawn et al. (2010a, 2010b) and Liu et al. (2016a, 2016b).

1. Data Availability and Provenance Statement

Statement about Rights
The author of the manuscript has legitimate access to and permission to share the data used in the manuscript.

Summary of Availability
All data used in the analysis is made available. To protect confidentiality, all identifying information have been removed.

Details on each Data Source
The project relies on the following data sources:

	Description of datasets	**Source file**	**Derivative analytical file(s)**
1.	**Audit visit data**: This dataset contains data collected during unannounced visits to the primary health center. This is the data used to generate Figures A.3 and A.8 in the Online Appendix.	audit.dta	audit.dta
2.	**Administrative data** on deployment dates for posted health providers.	dates.dta	NA
3.	**Baseline household survey**: This file contains data from the enrollment survey of participating women.	woman_bl.dta	

4.	**Baseline health facility data**. Contains data on the characteristics of participating health centers. This is used in Table 1.	facility_bl.dta	woman.dta child.dta
5.	**Follow-up household survey**: This file contains data from the follow-up survey of participating women conducted after delivery.	woman_el.dta	
6.	**Follow-up health facility data**. This contains the assessment of the posted provider used in Tables 7 and 8 as well as Figure A.9 and Table A.13 in the Online Appendix.	facility_el.dta	impact.dta
7.	**Health provider survey data**. This contains the data on clinical proficiency used in generating Figure 5 and Figures A.4, A.7 and A.10 in the Online Appendix.	provider.dta	provider.dta
8.	**Patient consultation data**. This includes data on patient characteristics and direct observations of patient care. This is the data used in Table 6 and Table A.10 in the Online Appendix.	patient.dta	patient.dta
9.	**Staffing data**. Contains data from the health facility staffing register. This is the data used in generating Figure 2.	roster.dta	staffing.dta

Replication Instructions

Software Requirements
Stata (code was last run using Stata 17). The following programs are necessary. Running MASTER.do installs all necessary programs.

- cibar
- estout
- ftools
- grc1leg2
- ivreg2
- ivreghdfe
- ranktest
- reghdfe
- renvars
- spmap

Note that the program dsregress (available in Stata 17) is also required for the double-lasso estimation in the paper. If you do not have access to Stata 17 please comment out Rows 110-112 (Table 4) and Row 138 (Table 5) in tables.do.

Replication Folder Structure

The replication folder is organized in the following subdirectories

Directory name	Notes
dofiles	Includes all dofiles necessary to replicate the analysis
data/raw	Contains the raw data
data/intermediate	Empty subdirectory where intermediate files are saved
data/analysis	Contains the constructed analytical datasets
output	Empty subdirectory to save all tables and figures
other	Contains survey instruments

Instruction to replicators

MASTER.do runs all do files necessary to produce results. Within MASTER.do set the path to the main replication folder and add the global for where the do files are saved, where data are saved, and for where you want outputs to be stored.

List of tables and programs

Table/Figure #	Program	Line #	Output file	Notes
Figure 1	NA	NA	NA	Figure was manually constructed using PowerPoint
Figure 2	figures.do	28	fig2a.eps figb.eps	
Figure 3	figures.do	62	fig3.eps	
Figure 4	figures.do	87	fig4a.eps fig4b.eps	
Figure 5	figures.do	129	fig5.eps	
Table 1	table1.do	NA	table1.tex	
Table 2	tables.do	31	table2.tex	
Table 3	tables.do	62	table3.tex	
Table 4	tables.do	100	table4.tex	
Table 5	tables.do	137	table5.tex	
Table 6	tables.do	166	table6.tex	
Table 7	tables.do	198	table7.tex	
Table 8	tables.do	228	table8.tex	
Appendix A	appfigures.do	21	appA.eps	
Appendix B	appfigures.do	46	appB.eps	
Appendix C	NA	NA	NA	Data are from Lawn et al. (2010a, 2010b) and Liu et al. (2016a, 2016b)
Figure A.1	appfigures.do	69	appfig1.eps	Data are from National Population Commission and ICF International (2014). Code is included but commented out.
Figure A.2	appfigures.do	82	appfig2.eps	
Figure A.3	appfigures.do	96	appfig3.eps	
Figure A.4	appfigures.do	118	appfig4.eps	
Figure A.5	appfigures.do	145	appfig5.eps	
Figure A.6	appfigures.do	166	appfig6.eps	

Figure A.7	appfigures.do	192	appfig7.eps	
Figure A.8	appfigures.do	214	appfig8.eps	
Figure A.9	appfigures.do	233	appfig9.eps	
Figure A.10	appfigures.do	280	appfig10.eps	
Table A.2	apptable2_3.do	3	apptab2.tex	
Table A.3	apptable2_3.do	67	apptab3.tex	
Table A.4	apptable4_15.do	20	apptab4.xls	Outputted as an Excel file
Table A.5	apptable4_15.do	71	apptab5.tex	
Table A.6	apptable4_15.do	103	apptab6.tex	
Table A.7	apptable4_15.do	135	apptab7.tex	
Table A.8	apptable4_15.do	166	apptab8.tex	
Table A.9	apptable4_15.do	202	apptab9.tex	
Table A.10	apptable4_15.do	238	apptab10.tex	
Table A.11	apptable4_15.do	266	apptab11.tex	
Table A.12	apptable4_15.do	305	apptab12.tex	
Table A.13	apptable4_15.do	337	apptab13.xls	Outputted as an Excel file
Table A.14	apptable4_15.do	364	apptab14.tex	
Table A.15	apptable4_15.do	396	apptab15.tex	
Table A.16	apptable16.do	NA	apptab16.tex	
Table A.17	apptable17_18.do	5	apptab17.tex	
Table A.18	apptable17_18.do	35	apptab18.tex	

Memory and Runtime Requirements

The code was last run on a 2.8 GHz Quad-Core Intel-Core i7 laptop with 16GB of RAM running MacOS version 10.15.7. Computation time took less than 10 minutes.

References

Lawn, J. E., Kerber, K., Enweronu-Laryea, C., and Cousens, S. (2010a). 3.6 million neonatal deaths—what is progressing and what is not? In Seminars in perinatology, volume 34, pages 371–386. Elsevier.

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Liu, L., Oza, S., Hogan, D., Chu, Y., Perin, J., Zhu, J., Lawn, J. E., Cousens, S., Mathers, C., and Black, R. E. (2016a). Global, regional, and national causes of under-5 mortality in 2000–15: an updated systematic analysis with implications for the sustainable development goals. The Lancet, 388(10063):3027–3035.

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