SUPPORTING INFORMATION

Incentivizing elimination of biomass cooking fuels with a reversible commitment and a spare LPG cylinder

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Supporting Information

Chulha smoke is harmful

Gas cooking is clean and safe

Chulha smoke has many bad immediate effects

- Coughing [insert images for these symptoms]
- Sore throat
- Runny nose
- Itchy / burning sensation in eyes

- And in the long-term it contributes to respiratory illnesses, heart disease, and low birth weights.

Children are the most vulnerable

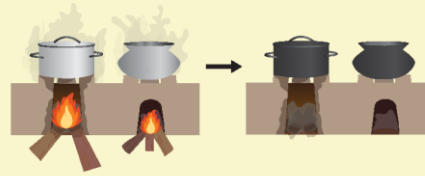Children breathe faster and inhale more of the chulha smoke than adults

And the smoke is most damaging to children, even while the mother is pregnant!
- Their lungs are still growing
- Their bodies are still developing the ability to fight disease

You cannot see the smoke particles, but you have seen its effects

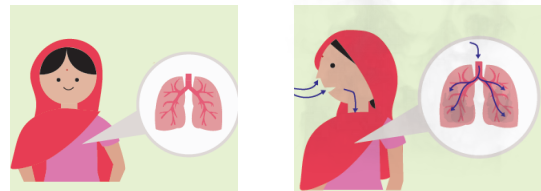### Smoke turns your shiny pots black

The same thing happens to your lungs

Your lungs bring in the air you breathe.

Smoke goes in the same way and damages your lungs

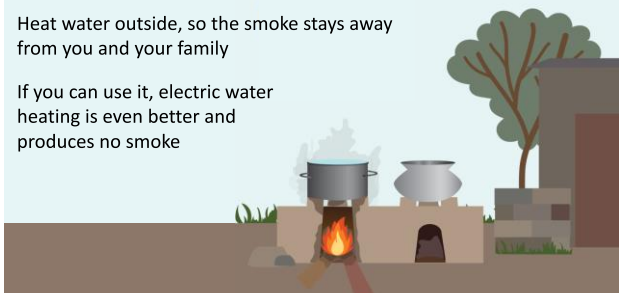## Even a little bit of chulha use, can have very bad effects

- So you should not use chulhas even on special occasions and you need a second cylinder to cover the refill gap when ordering a refill!

How about heating water?

Heat water outside, so the smoke stays away from you and your family

If you can use it, electric water heating is even better and produces no smoke

Clean LPG, Clean House, Clean India

Keep your pots, kitchen, and house clean

LPG stoves are easy to maintain, unlike your chulha, which must be repaired, repainted, and remade
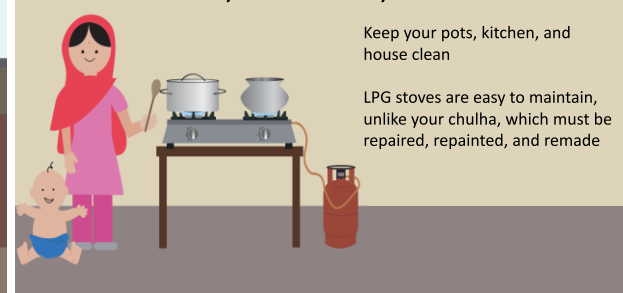
Figure S1. The English version of the health messaging deployed as part of this project

Stove usage data completeness. Continuous temperature dataloggers were deployed as stove usage monitors (SUMs) during this study. Due to battery, probe, and other failures, approximately 24% of SUMs data was lost. A summary of this missingness follows. Missingness was determined by estimating the expected days of stove use monitoring for each household and stove type and comparing it to the available days of stove use data. Overall rates of missingness are consistent with the literature from India for deployment of similar SUMs[28, 33].

Table S1. Expected versus sampled days of SUMs data for the entire study.

Expected Days	Sampled Days	Number Missing	Percent Missing
43211	32781	10430	24

Table S2. Missingness by Study Arm

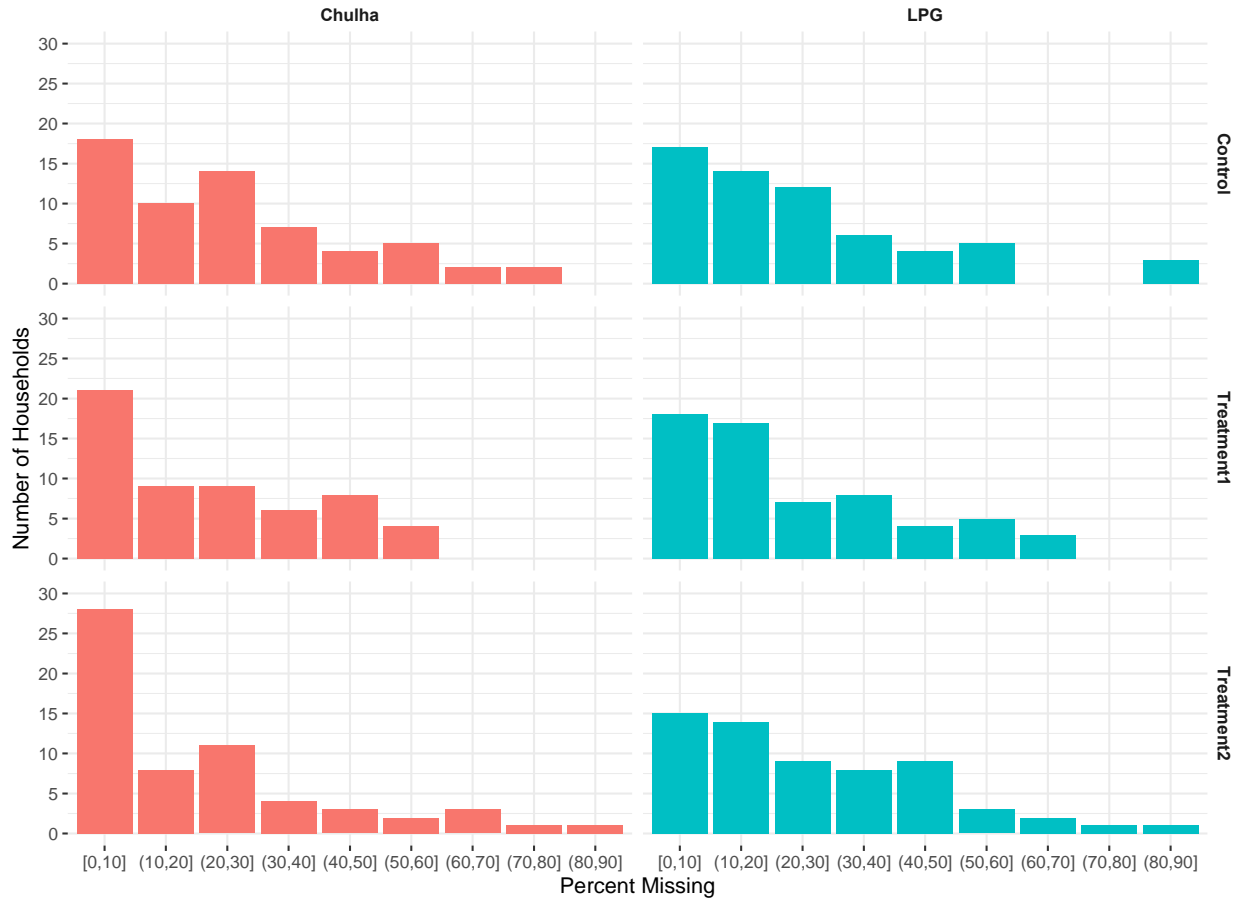|	Expected Days	Sampled Days	N Missing	% Missing
Treatment 1	15944	12249	3695	23
Treatment 2	12475	9304	3171	25
Control	14792	11228	3564	24

Figure S2. Data missingness by stove type and study arm. The x-axis is the category describing the amount of missing data; the y-axis is the number of households. Red bars are monitored Chulhas; blue bars are monitored LPG stoves.
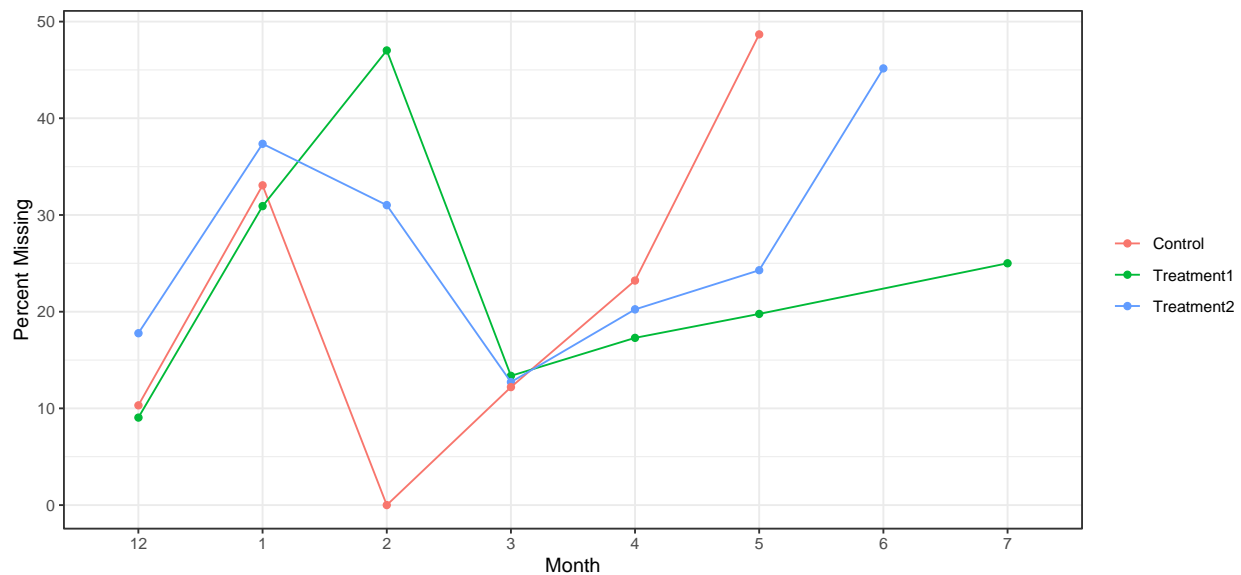
Figure S3. Data missingness by month and study arm. The x-axis is the abbreviated month of year

(12 = December, 1 = January, etc). The y-axis is the percent of missing data in each month. Colors
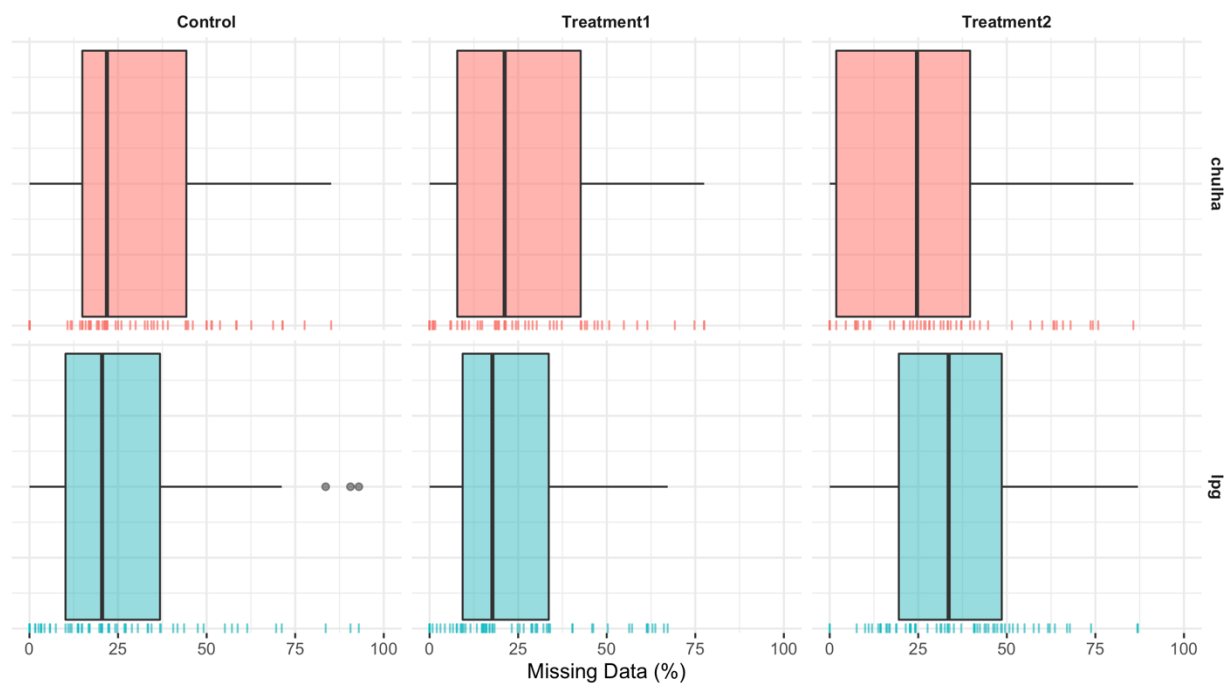
denote study arm.

Figure S4. Missing data by arm and stove type. The x-axis is the percent missing. The ticks along

the x are represent the distribution of datapoints.