

# Supporting Information

Mobarak et al. 10.1073/pnas.1115571109

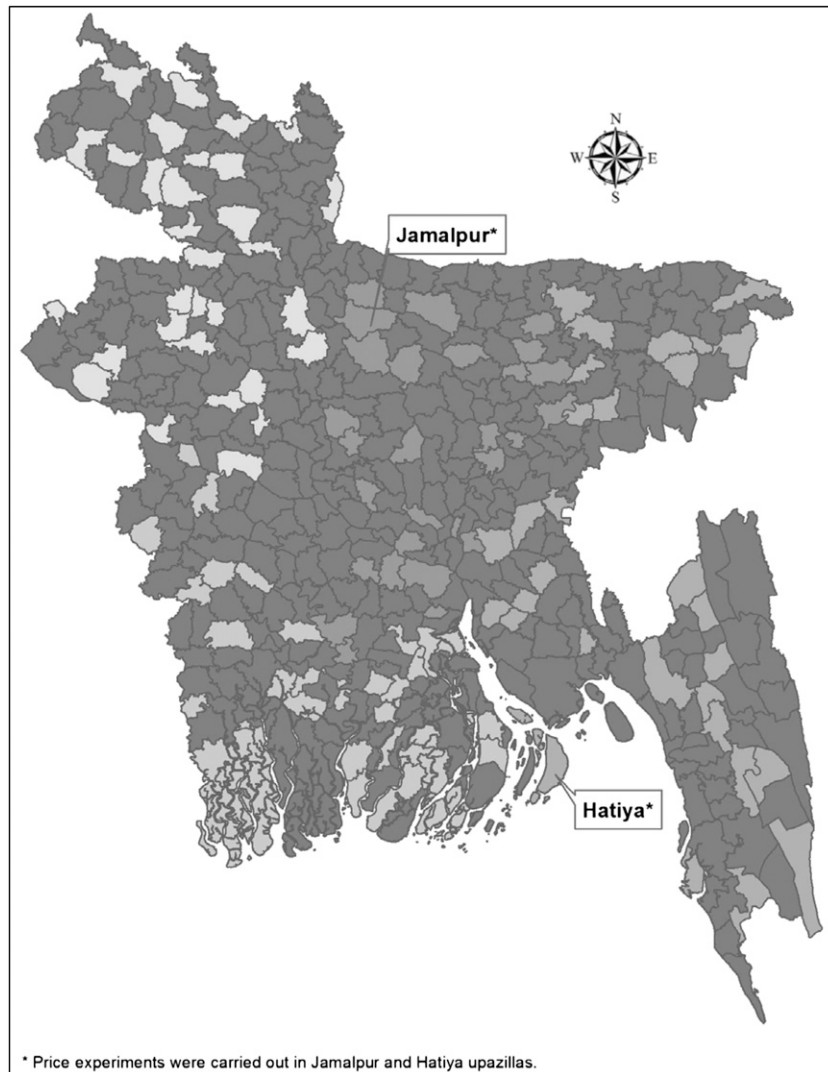


Fig. S1. Locations of upazillas selected for the nationally representative survey in Bangladesh.



**Table S3. Valued characteristics of nontraditional cookstoves**

Characteristic	Preference	
	Primary	Secondary
Reduces fuel costs	1,120 (46.7%) [43.8–49.6]	2 (0.1%) [–3.9–4.1]
Needs less time to cook a meal	515 (21.5%) [17.9–25.0]	476 (19.9%) [16.8–23.4]
Uses more types of fuel	346 (14.4%) [10.7–18.1]	114 (4.8%) [0.9–8.7]
Reduces or eliminates smoke in the house	215 (8.9%) [5.1–12.8]	1,031 (43.0%) [39.9–46.0]
Needs less monitoring time while cooking	101 (4.2%) [0.3–8.1]	103 (4.3%) [0.4–8.2]
Has more cooking chambers	75 (3.1%) [–0.8–7.1]	111 (4.6%) [0.7–8.5]
Maintains taste of food	8 (0.3%) [–3.7–4.3]	177 (7.4%) [3.5–11.2]
Portability	5 (0.2%) [–3.8–4.2]	141 (5.9%) [2.00–9.8]

Confidence intervals (%) are given in brackets below values.

**Table S4. Preferences in hypothetical choices between goods/services versus varying amounts of cash**

Infrastructure-related facilities	Amount of cash offered			
	₹50 (\$0.72)	₹100 (\$1.45)	₹250 (\$3.62)	₹500 (\$7.24)
A tube well close to your house that provides arsenic-free water	18 (0.7%) [0.4–1.1]	19 (0.8%) [0.4–1.1]	19 (0.8%) [0.4–1.1]	22 (0.9%) [0.5–1.3]
A sanitary latrine built close to your house	13 (0.5%) [0.3–0.8]	16 (0.7%) [0.3–1]	18 (0.8%) [0.4–1.1]	25 (1.1%) [0.6–1.4]
A pucca (all-season) road built from close to your house to the local market	20 (0.8%) [0.5–1.2]	22 (0.9%) [0.5–1.3]	23 (0.9%) [0.6–1.4]	27 (1.1%) [0.7–1.5]
A new secondary school that your child can attend where 75% of students pass Secondary School Certificate examinations and is built the same distance as your child's current school	24 (1%) [0.6–1.4]	25 (1.1%) [0.6–1.4]	29 (1.2%) [0.8–1.6]	32 (1.3%) [0.9–1.8]
Electricity connection to your house for light bulbs	27 (1.1%) [0.7–1.5]	29 (1.2%) [0.8–1.6]	30 (1.2%) [0.8–1.7]	33 (1.4%) [0.9–1.8]
A new primary school that your child can attend where the class teacher has a university degree from Dhaka, Bangladesh	24 (1%) [0.6–1.4]	26 (1.1%) [0.7–1.5]	30 (1.2%) [0.8–1.7]	35 (1.5%) [1–1.9]
Free consultations with an MBBS doctor who comes to your local health facility for your health problems over a 3-mo period	29 (1.2%) [0.8–1.6]	32 (1.3%) [0.9–1.8]	34 (1.4%) [0.9–1.9]	41 (1.7%) [1.2–2.2]
An embankment built to protect your agricultural land from floods	35 (1.5%) [1–2]	37 (1.5%) [1–2]	43 (1.8%) [1.3–2.3]	49 (2.04%) [1.5–2.6]
Free consultations with an MBBS doctor who comes to your local health facility for one of your daughter's health problems over a 3-mo period	40 (1.7%) [1.2–2.2]	41 (1.7%) [1.2–2.2]	46 (1.9%) [1.4–2.5]	53 (2.2%) [1.6–2.8]
Free consultations with an MBBS doctor who comes to your local health facility for one of your son's health problems over a 3-mo period	41 (1.7%) [1.2–2.2]	44 (1.8%) [1.3–2.4]	50 (2.1%) [1.5–2.7]	55 (2.3%) [1.7–2.9]
A new seed for your crop that is exactly the same as the one you currently use except that it improves yields by 25%	37 (1.5%) [1–2]	44 (1.8%) [1.3–2.4]	50 (2.1%) [1.5–2.7]	59 (2.5%) [1.8–3.1]
An improved cookstove	82 (3.4%) [2.7–4.1]	111 (4.6%) [3.8–5.5]	138 (5.8%) [4.8–6.7]	170 (7.1%) [6.1–8.1]

Percentages in the table refer to the percentage of all respondents (2,397) who stated a preference for cash rather than the good described in the first column. Confidence intervals (%) are given in brackets below values. MBBS, bachelor of medicine/bachelor of surgery degree.

**Table S5. Descriptive statistics for key variables from the cookstove price experiment**

Variable	Efficiency cookstoves			Chimney cookstoves		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Household wealth index*	1,096	0.1	1.2	1,184	0.1	1.2
Household expenditures, ₪	1,095	5,936.8	5,301.4	1,184	5,385.2	5,360.1
Children under age 5 <i>y</i> , <i>n</i>	1,096	0.7	0.8	1,183	0.8	0.8
Region (Hatiya)	1,096	0.5	0.5	1,184	0.5	0.5
Females' age, <i>y</i>	1,096	37.7	11.5	1,183	36.1	11.5
Females' education, <i>y</i>	1,096	3.0	3.5	1,183	3.3	3.7
Males' age, <i>y</i>	1,096	45.7	12.7	1,184	44.6	12.9
Males' education, <i>y</i>	1,096	4.1	4.5	1,184	4.2	4.0.61
Females' wages, ₪	1,096	0.3	0.5	1,183	0.2	0.4
Males' wages, ₪	1,096	1.0	0.2	1,184	1.0	0.2
Household members, <i>n</i>	1,096	6.5	2.7	1,183	6.5	2.7
Female household members, <i>n</i>	1,096	3.4	1.8	1,183	3.3	1.7
Male household members, <i>n</i>	1,096	3.2	1.6	1,183	3.1	1.6
Children under age 18 <i>y</i> , <i>n</i>	1,096	2.7	1.6	1,183	2.7	1.6
Wage earners, <i>n</i>	1,096	2.0	1.1	1,183	1.8	1.0
Household members present, <i>n</i>	1,096	5.3	2.1	1,183	5.3	2.1
Family's average monthly income, ₪	1,096	6,123.8	5,032.8	1,183	6,132.1	5,916.4
Pollution in home (1 = not at all to 5 = very polluted)	1,096	2.8	1.13	1,184	2.7	1.07
Women's health index <sup>†</sup>	1,096	-0.08	1.76	1,184	-0.16	1.83
Children's health index <sup>‡</sup>	1,096	-0.04	2.09	1,184	-0.1	1.96

\*The household wealth index was constructed by using principal component analysis on the basis of five variables: the respondent's self-assessment of the household's affluence on a scale of 1–5 and measures of the four separate categories of household assets—land, vehicles, animals, and cash savings.

<sup>†</sup>The women's health index was constructed by using principal component analysis on the basis of eight variables, each indicating if the household head's wife has suffered any of the following health problems in the past 30 d: eye problems, diarrhea, difficulty breathing, night sweats, dry cough, cough with sputum, blood in sputum, or fever.

<sup>‡</sup>The children's health index was constructed by using principal component analysis on the basis of eight variables, each indicating if any child in the household has suffered any of the following health problems in the past 30 d: eye problems, diarrhea, difficulty breathing, night sweats, dry cough, cough with sputum, blood in sputum, or fever.

**Table S6. Details of cookstove orders with respect to prices**

Variable	Efficiency cookstoves			Chimney cookstoves		
	Full price (95% CI)	Half price (95% CI)	Difference (SE)	Full price (95% CI)	Half price (95% CI)	Difference (SE)
Price, ₪	400	200		750	375	
No. of villages	12	10		10	10	
No. of households	648	536		542	554	
Cookstove order rate	0.233 (0.200–0.266)	0.485 (0.443–0.526)	0.252*** (0.0268)	0.314 (0.274–0.353)	0.345 (0.305–0.384)	0.031 (0.0284)
Cookstove adoption (purchase) rate	0.046 (0.030–0.063)	0.162 (0.131–0.194)	0.116** (0.0452)	0.02 (0.008–0.032)	0.074 (0.052–0.096)	0.054** (0.0245)

\*Significance at 90%; \*\*significance at 95%; \*\*\*significance at 99%. CI, confidence interval.