Subjective risk belief function in the field: Evidence from cooking fuel choices and health in India

Online Appendices not for Publication

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A Additional Figures

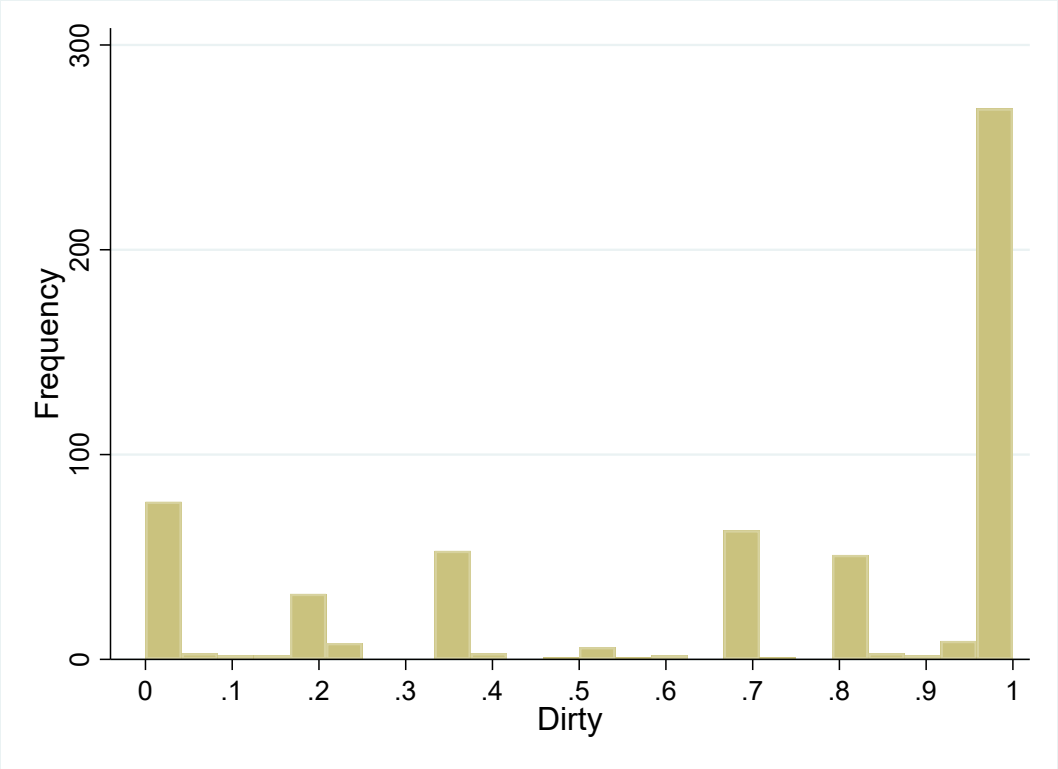


Figure A1: Histogram of fraction of days of dirty fuel usage in the 30 days before the last month

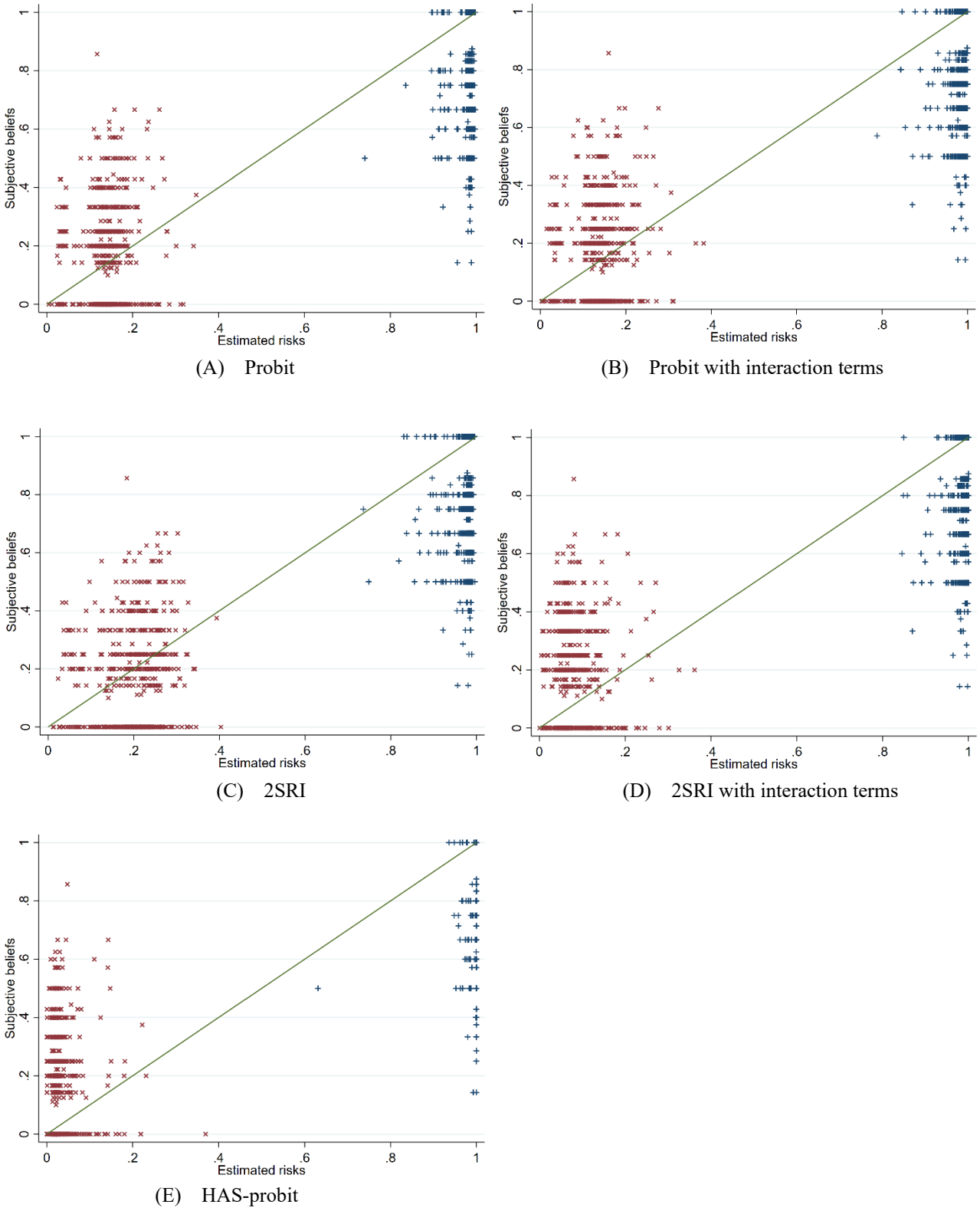
Notes: This figure shows the distribution of the fraction of days of dirty fuel usage ($Dirty_i$). This figure replicates Figure 1 in Chattopadhyay et al. (2021).

Figure A2: Motorable road

Figure A3: Non-motorable road (or lane)

Figure A4: Motorable (A) and non-motorable (B) roads

Notes: Figures A2–4 show pictures that are taken at the research site. Figure A2 shows a motorable road; Figure A3 shows a non-motorable road. In Figure A4, both motorable (indicated as A) and non-motorable (indicated as B) roads are shown. In rural areas of West Bengal, most non-motorable roads are not paved with concrete. However, there are some non-motorable roads that are paved with concrete. Concrete non-motorable roads are often quite narrow that prohibits the passing of motorcycles or cars through them.



(A) Probit

(B) Probit with interaction terms

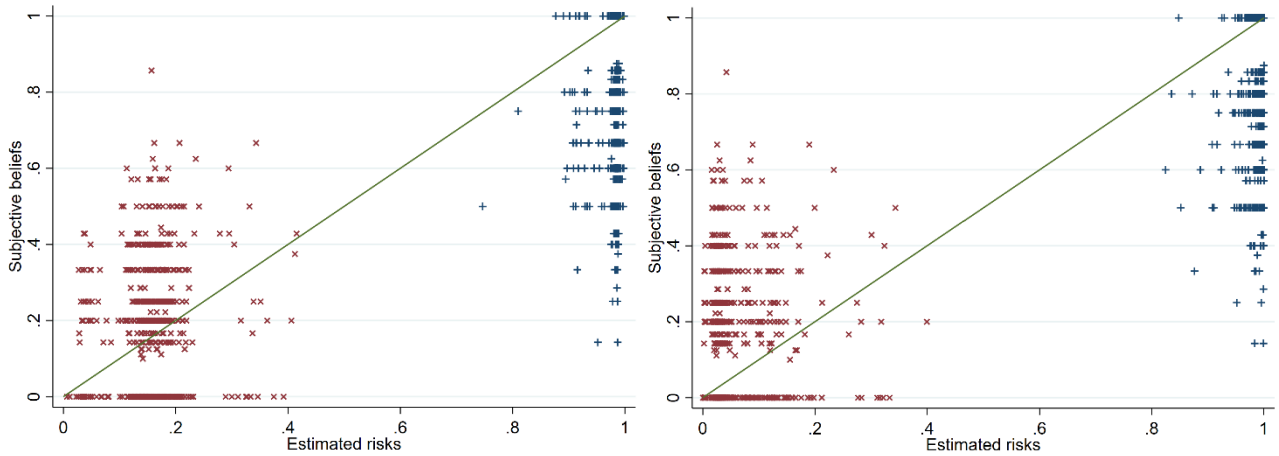
(C) 2SRI

(D) 2SRI with interaction terms

(E) HAS-probit

Figure A5. Subjective beliefs and estimated risks (Subsample analysis)

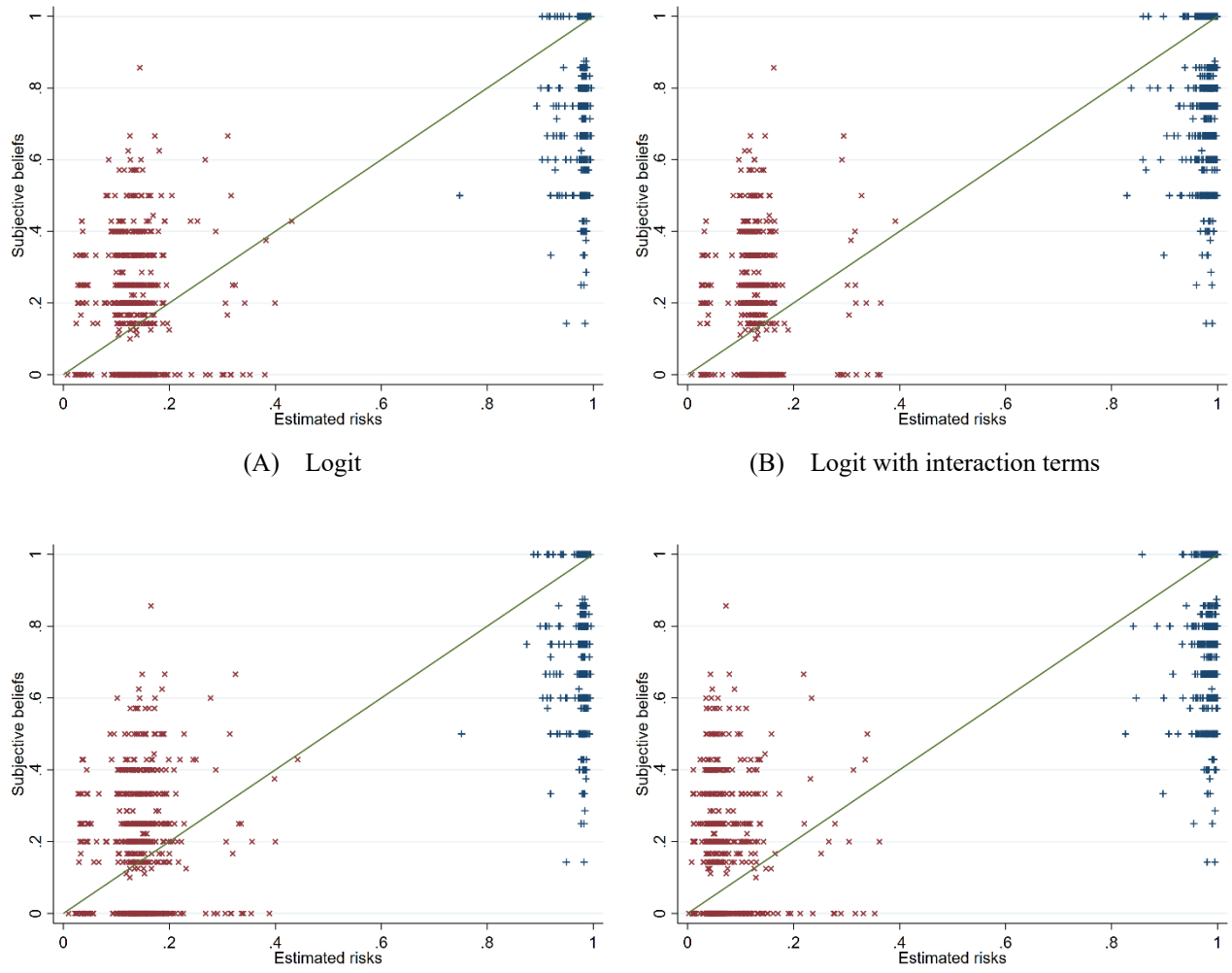
Notes: This figure shows the empirical results of the relationship between subjective belief and objective estimated risk for 565 respondents. Households that use kerosene or electricity at least one day in the month (23 households) are omitted. Panels A, B, C, D, and E correspond to estimated risks calculated using probit, probit with interaction terms, 2SRI, 2SRI with interaction terms, and HAS, respectively. The red X depicts $s_i = \psi\big(r_i(Dirty_i = 0)\big)$, and the blue cross depicts $s_i = \psi\big(r_i(Dirty_i = 1)\big)$. The green line shows $s_i = r_i$.



(A) 2SRI (B) 2SRI with interaction terms

Figure A6. Subjective beliefs and estimated risks using "Time to the market" as an IV

Notes: This figure shows the empirical results of the relationship between subjective belief and objective estimated risk for 588 respondents. Panels A, and B correspond to estimated risks calculated using 2SRI, and 2SRI with interaction terms, where the instrumental variable is "Time to the market." The red X depicts $s_i = \psi\big(r_i(Dirty_i = 0)\big)$, and the blue cross depicts $s_i = \psi\big(r_i(Dirty_i = 1)\big)$. The green line shows $s_i = r_i$.



(A) Logit

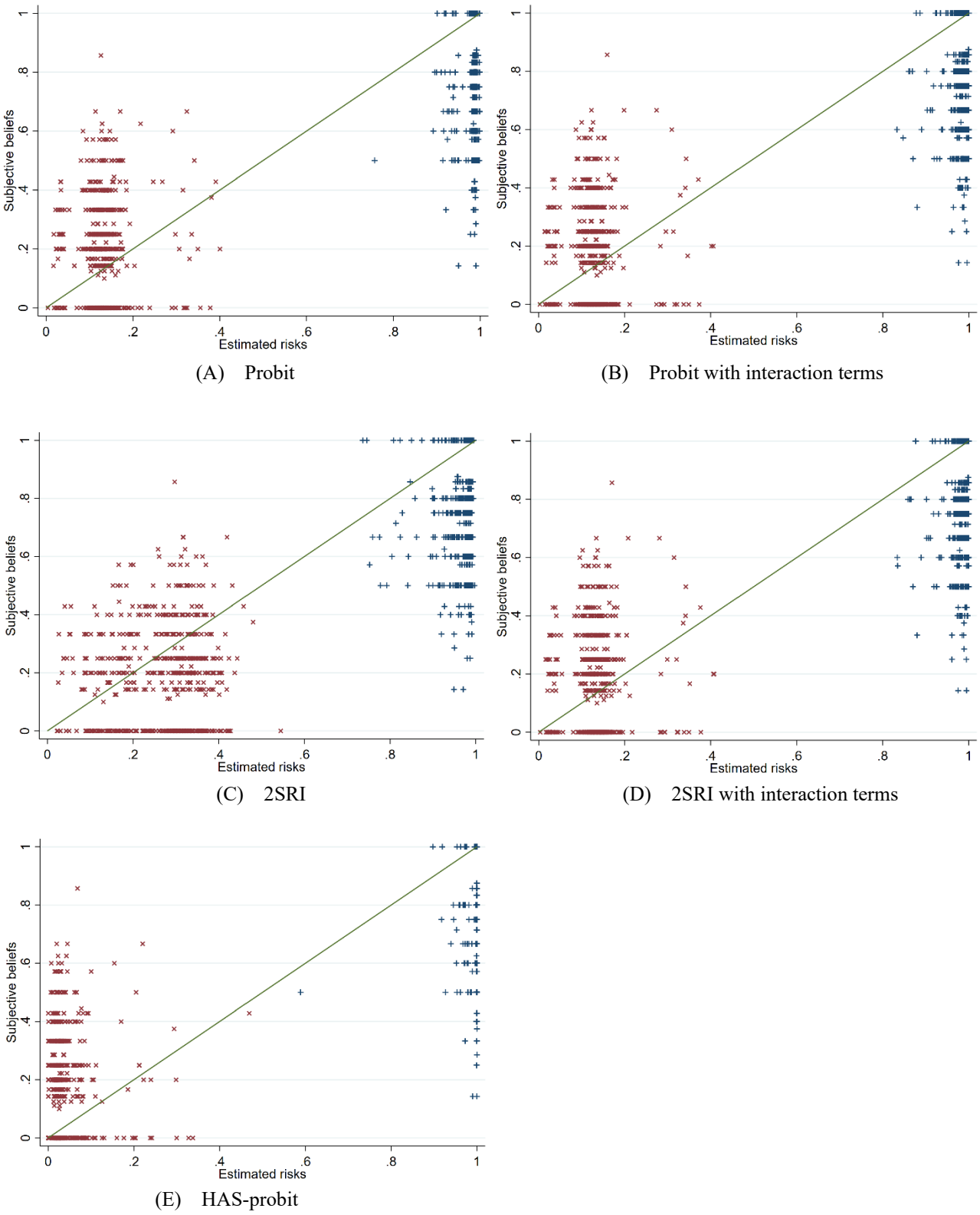
(B) Logit with interaction terms

(C) 2SRI-logit

(D) 2SRI-logit with interaction terms

Figure A7. Subjective beliefs and estimated risks (Logit models)

Notes: This figure shows the empirical results of the relationship between subjective belief and objective estimated risk for 588 respondents. Panels A, B, C, D, and E correspond to estimated risks calculated using logit, logit with interaction terms, 2SRI-logit, and 2SRI-logit with interaction terms, respectively. The red X depicts $s_i = \psi\big(r_i(Dirty_i = 0)\big)$, and the blue cross depicts $s_i = \psi\big(r_i(Dirty_i = 1)\big)$. The green line shows $s_i = r_i$.



(A) Probit

(B) Probit with interaction terms

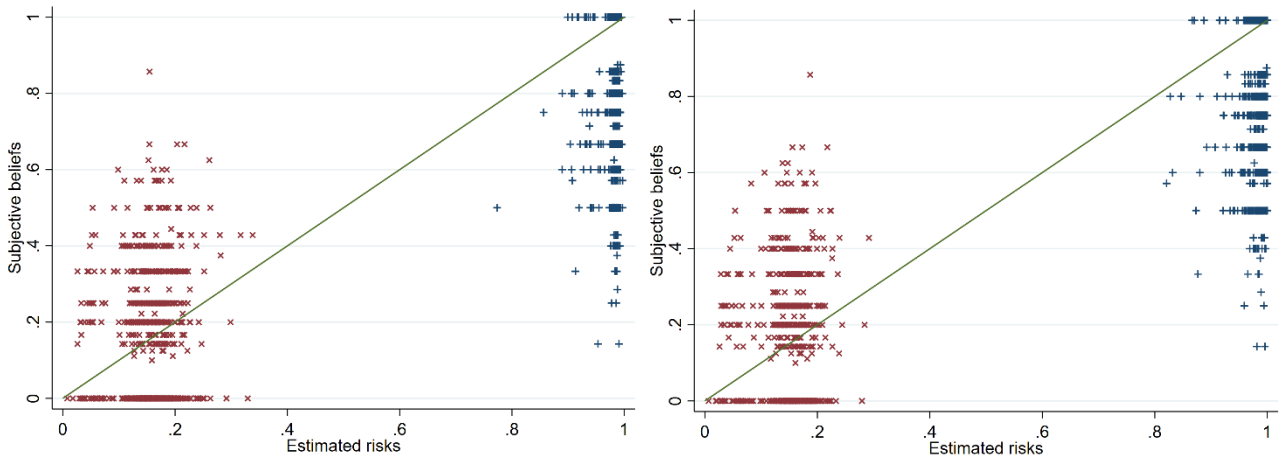
(C) 2SRI

(D) 2SRI with interaction terms

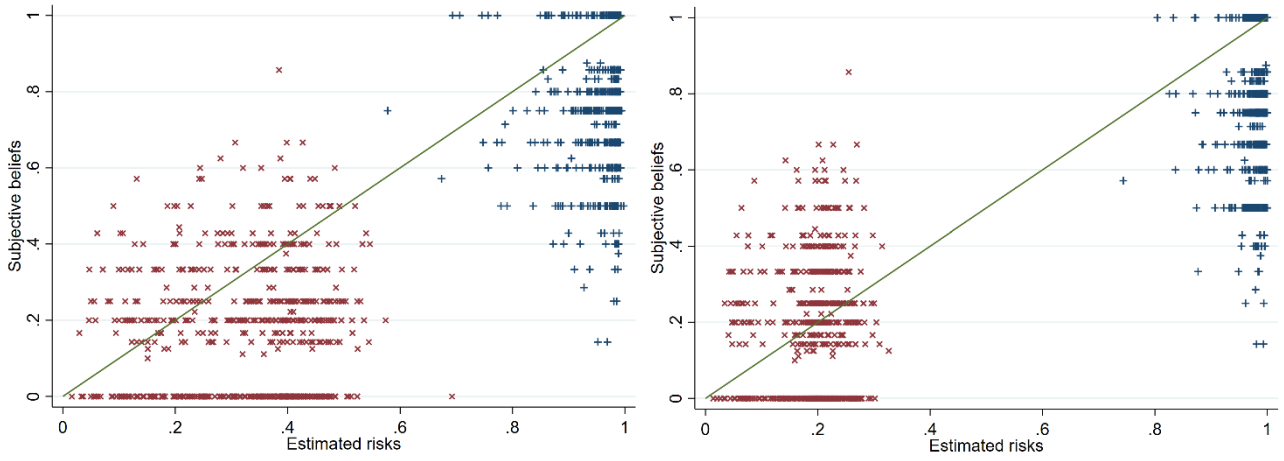
(E) HAS-probit

Figure A8. Subjective beliefs and estimated risks (Subsample analysis)

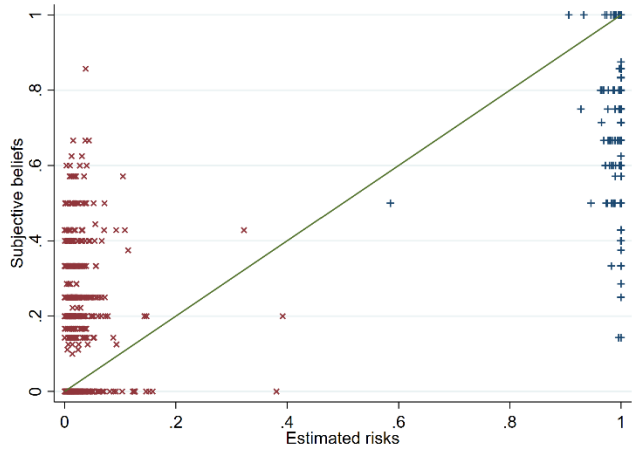
Notes: This figure shows the empirical results of the relationship between subjective belief and objective estimated risk for 584 respondents. The top four observations with cumulative years of clean fuel usage until the first round (CY) are omitted. These four observations exceed 25 years with CY. Panels A, B, C, D, and E correspond to estimated risks calculated using probit, probit with interaction terms, 2SRI, 2SRI with interaction terms, and HAS, respectively. The red X depicts $s_i = \psi\big(r_i(Dirty_i = 0)\big)$, and the blue cross depicts $s_i = \psi\big(r_i(Dirty_i = 1)\big)$. The green line shows $s_i = r_i$.



(A) Probit (B) Probit with interaction terms



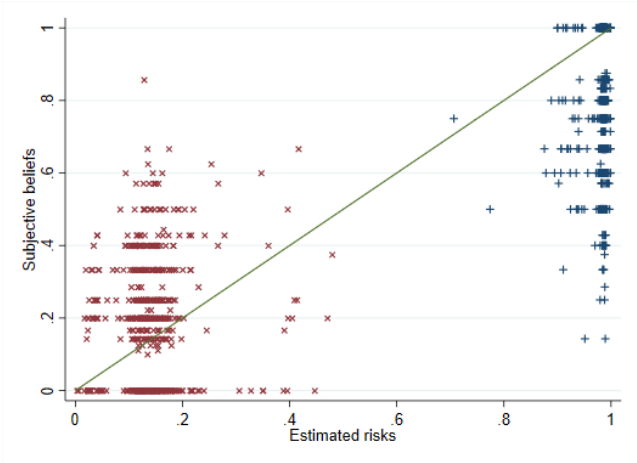
(C) 2SRI (D) 2SRI with interaction terms



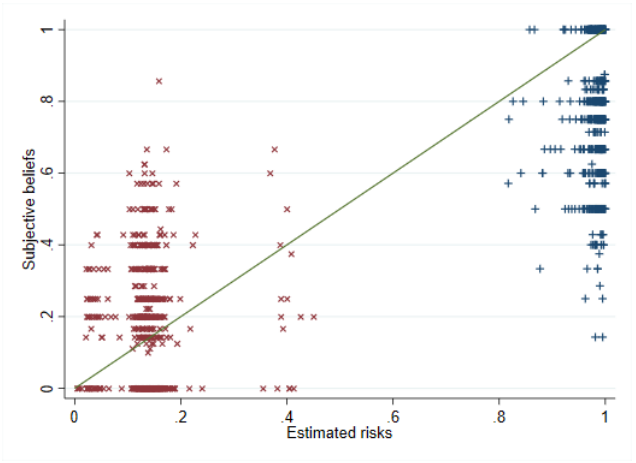
(E) HAS-probit

Figure A9. Subjective beliefs and estimated risks (continuous CY and $CY15$)

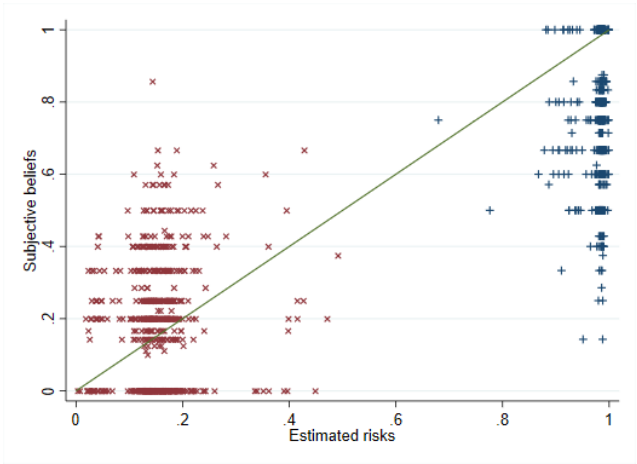
Notes: This figure shows the empirical results of the relationship between subjective belief and objective estimated risk for 588 respondents. Unlike Figure 3, the models used in this figure include a simple linear control for cumulative years of clean fuel usage until the first round (CY) and $CY15$. Panels A, B, C, D, and E correspond to estimated risks calculated using probit, probit with interaction terms, 2SRI, 2SRI with interaction terms, and HAS, respectively. The red X depicts $s_i = \psi\big(r_i(Dirty_i = 0)\big)$, and the blue cross depicts $s_i = \psi\big(r_i(Dirty_i = 1)\big)$. The green line shows $s_i = r_i$.



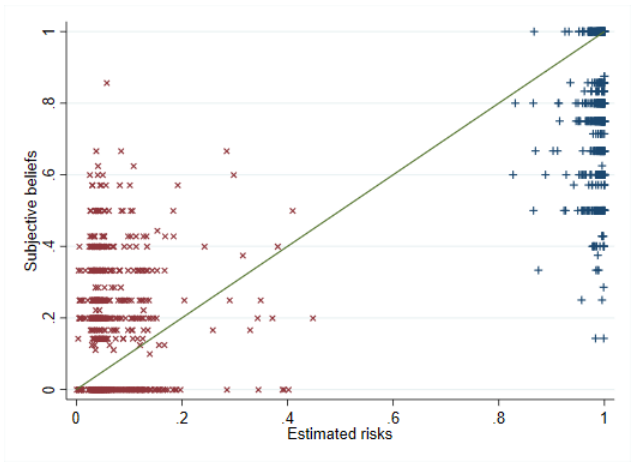
(A) Probit



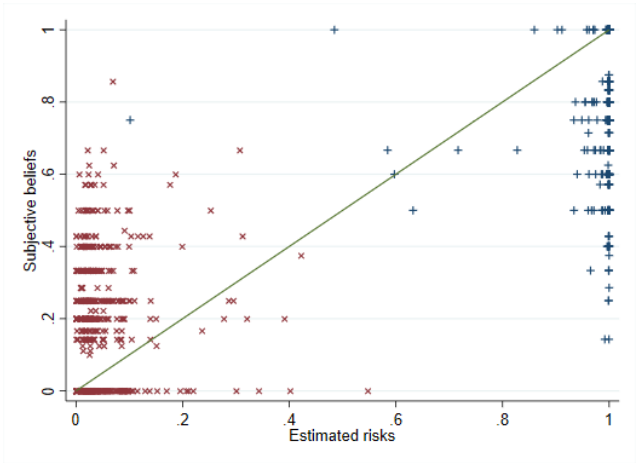
(B) Probit with interaction terms



(C) 2SRI



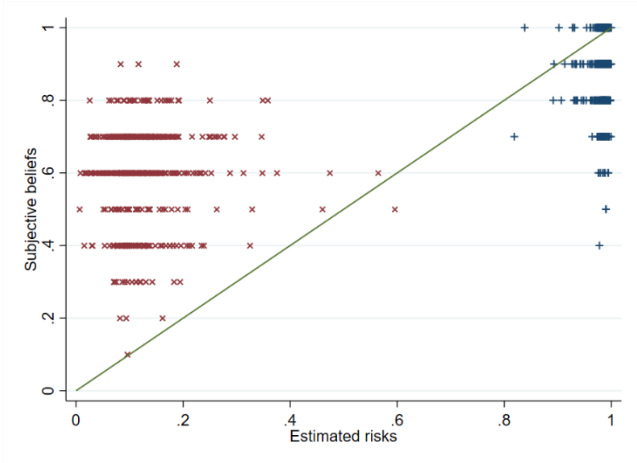
(D) 2SRI with interaction terms



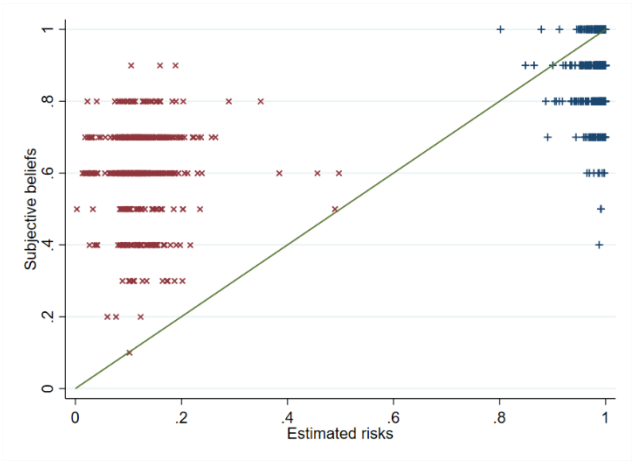
(E) HAS-probit

Figure A10. Subjective beliefs and estimated risks (Three dummy variables)

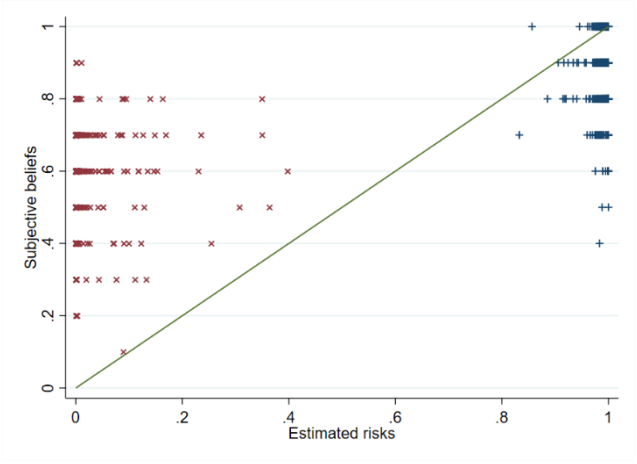
Notes: This figure shows the empirical results of the relationship between subjective belief and objective estimated risk for 588 respondents. Unlike Figure 3, the models used in this figure include three indicator variables created by using CY. These indicator variables are $CY5$ b, $CY10$ and $CY20$. $CY5b = 1$ if $5 < CY \leq 10$, and $CY5b = 0$ otherwise; $CY10 = 1$ if $10 < CY \leq 20$, and $CY10 = 0$ otherwise; $CY20 = 1$ if $20 < CY$, and $CY20 = 0$ otherwise. The omitted category takes $0 \leq CY \leq 5$. Panels A, B, C, D, and E correspond to estimated risks calculated using probit, probit with interaction terms, 2SRI, 2SRI with interaction terms, and HAS, respectively. The red X depicts $s_i = \psi\big(r_i(Dirty_i = 0)\big)$, and the blue cross depicts $s_i = \psi\big(r_i(Dirty_i = 1)\big)$. The green line shows $s_i = r_i$.



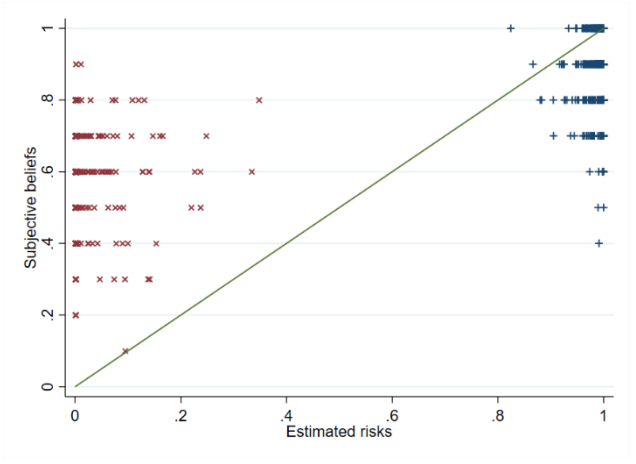
(A) Probit



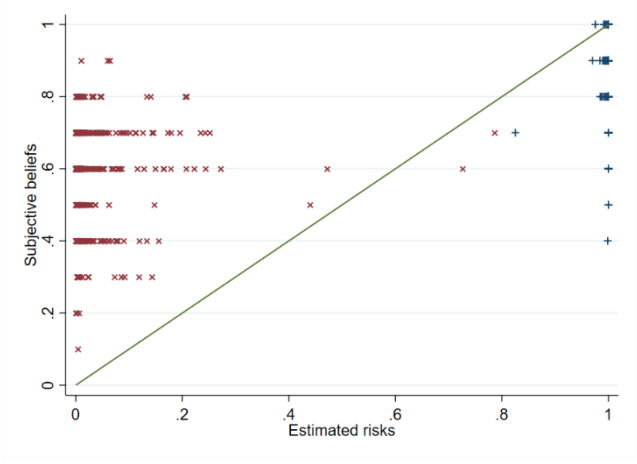
(B) Probit with interaction terms



(C) 2SRI



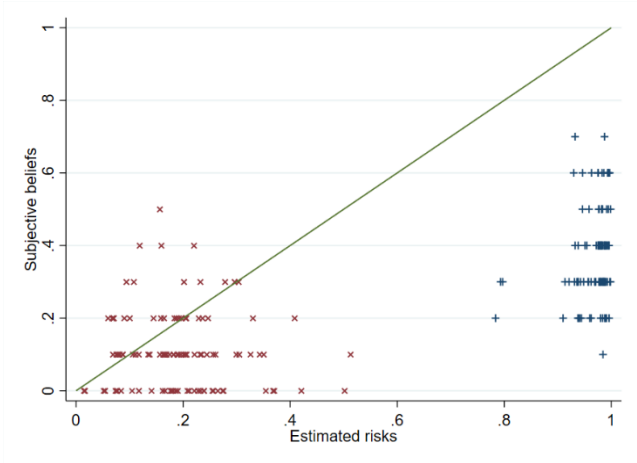
(D) 2SRI with interaction terms



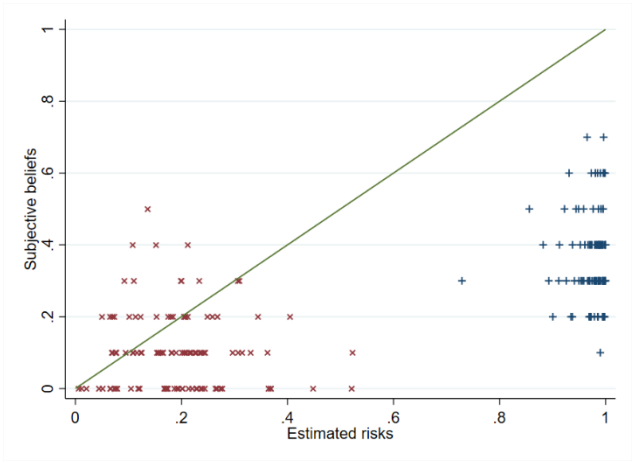
(E) HAS-probit

Figure A11. Subjective beliefs and estimated risks (Conditional on *sick* in the first round)

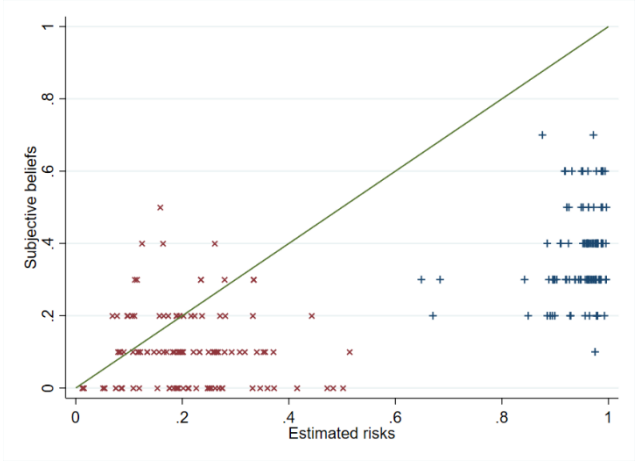
Notes: This figure shows the empirical results of the relationship between subjective belief and objective estimated risk for 477 respondents who answered as *sick* to the question in the first round. Panels A, B, C, D, and E correspond to estimated risks calculated using probit, probit with interaction terms, 2SRI, 2SRI with interaction terms, and HAS, respectively. The red X depicts $s_i = \psi\big(r_i(Dirty_i = 0)\big)$, and the blue cross depicts $s_i = \psi\big(r_i(Dirty_i = 1)\big)$. The green line shows $s_i = r_i$.



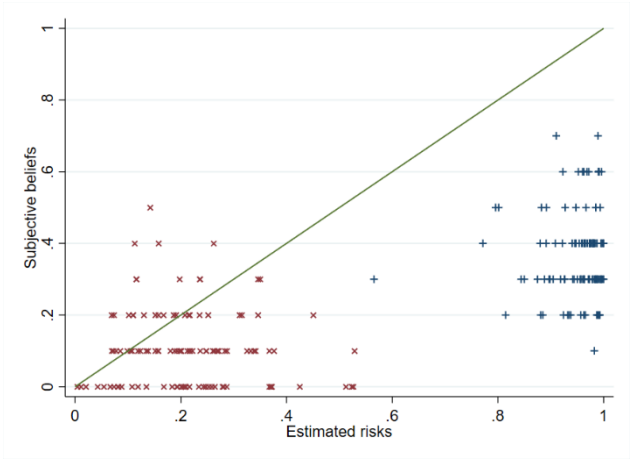
(A) Probit



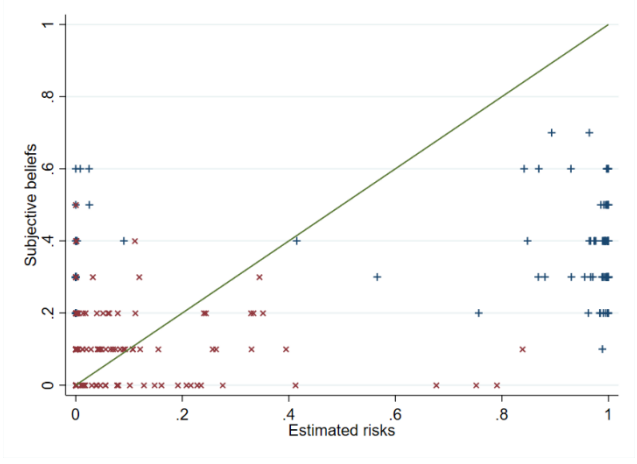
(B) Probit with interaction terms



(C) 2SRI



(D) 2SRI with interaction terms



(E) HAS-probit

Figure A12. Subjective beliefs and estimated risks (Conditional on *healthy* in the first round)

Notes: This figure shows the empirical results of the relationship between subjective belief and objective estimated risk for 111 respondents who answered as *healthy* to the question in the first round. Panels A, B, C, D, and E correspond to estimated risks calculated using probit, probit with interaction terms, 2SRI, 2SRI with interaction terms, and HAS, respectively. The red X depicts $s_i = \psi\big(r_i(Dirty_i = 0)\big)$, and the blue cross depicts $s_i = \psi\big(r_i(Dirty_i = 1)\big)$. The green line shows $s_i = r_i$.

B Additional Tables

Table A1. Risk of dirty fuel for physical symptoms (average marginal effects)

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable:	$Symp_i$	$Symp_i$	$Dirty_i$	$Symp_i$	$Symp_i$	$Symp_i$
Probit models:	Standard	Standard	Fractional	2SRI	2SRI	HAS
$Dirty_i$	0.502***	0.519***		0.462**	0.608**	0.473***
	(0.022)	(0.029)		(0.208)	(0.269)	(0.024)
Age of the respondent	0.001	0.001	0.000	0.001	0.002	0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Hindu religion	0.008	0.009	-0.150***	0.002	0.022	0.012
	(0.036)	(0.034)	(0.037)	(0.046)	(0.050)	(0.033)
Years of education of the	0.001	0.001	-0.013***	0.000	0.003	0.001
respondent	(0.003)	(0.003)	(0.003)	(0.005)	(0.006)	(0.003)
Monthly household income	0.003	0.009*	-0.024***	0.003	0.011	0.001
(thousand INR)	(0.003)	(0.005)	(0.004)	(0.007)	(0.011)	(0.003)
Household size	0.003	0.002	0.031***	0.005	-0.000	0.007
	(0.009)	(0.009)	(0.007)	(0.014)	(0.016)	(0.008)
Respondent is a housewife	0.124***	0.150***	-0.030	0.122**	0.154**	0.123***
	(0.041)	(0.056)	(0.079)	(0.048)	(0.064)	(0.044)
Number of cooks in the	-0.013	-0.014	-0.013	-0.015	-0.011	-0.020
household	(0.037)	(0.040)	(0.055)	(0.041)	(0.045)	(0.039)
Kitchen is located outside	0.009	0.015	-0.022	0.009	0.016	0.043
the dwelling space	(0.036)	(0.036)	(0.037)	(0.040)	(0.040)	(0.037)
CY5	0.089*	0.081**	-0.334***	0.073	0.107	0.096***
	(0.050)	(0.040)	(0.051)	(0.108)	(0.089)	(0.037)
CY15	-0.062	-0.042	-0.292**	-0.074	-0.011	0.059
	(0.082)	(0.095)	(0.116)	(0.102)	(0.130)	(0.059)
Household owns a personal	-0.116*	-0.120	-0.127**	-0.119*	-0.109	-0.144***
computer	(0.061)	(0.084)	(0.052)	(0.072)	(0.101)	(0.056)
$Time\ to\ road_i$			0.004***			
			(0.001)			
First-stage residual ($\hat{u}_i$)				0.041	-0.089	
				(0.210)	(0.256)	
$Dirty_i$ × Age	No	Yes	No	No	Yes	No
$Dirty_i$ × Monthly income	No	Yes	No	No	Yes	No
Misclassificationα_0	No	No	No	No	No	Yes
Misclassificationα_1	No	No	No	No	No	Yes
Observations	588	588	588	588	588	588
Log likelihood	-163.400	-161.338	-300.813	-163.370	-161.233	-159.198
AIC	352.800	350.675	627.625	354.740	354.467	348.396
BIC	409.697	411.949	684.523	416.014	424.494	414.046

Notes: This table reports the average marginal effects. The numbers in parentheses are delta-method standard errors clustered at the *part* level in Columns 1–5 and delta-method standard errors in Column 6. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table A2. The results of the test for weak instrument

	(1)	(2)	(3)	(4)
Dependent variable:	$Dirty_i$	$Dirty_i$	$Dirty_i$	$Dirty_i$
Models:		Linear probability model		
$Time\ to\ road_i$	0.004***	0.004***		
	(0.001)	(0.001)		
$Time\ to\ the\ market_i$			0.003**	0.003**
			(0.001)	(0.001)
Age of the respondent	0.000	0.001	0.000	0.001
	(0.001)	(0.001)	(0.001)	(0.001)
Hindu religion	-0.154***	-0.152***	-0.160***	-0.158***
	(0.038)	(0.038)	(0.039)	(0.039)
Years of education of the	-0.015***	-0.014***	-0.014***	-0.014***
respondent	(0.003)	(0.003)	(0.003)	(0.003)
Monthly household income	-0.015**	-0.016***	-0.015***	-0.016***
(thousand INR)	(0.005)	(0.005)	(0.005)	(0.005)
Household size	0.026***	0.026***	0.026***	0.027***
	(0.005)	(0.006)	(0.006)	(0.006)
Respondent is a housewife	-0.026	-0.028	-0.030	-0.032
	(0.086)	(0.086)	(0.086)	(0.086)
Number of cooks in the	-0.018	-0.019	-0.019	-0.020
household	(0.051)	(0.051)	(0.048)	(0.048)
Kitchen is located outside	-0.013	-0.013	-0.013	-0.012
the dwelling space	(0.039)	(0.038)	(0.039)	(0.039)
Household owns a personal	-0.118*	-0.124*	-0.115*	-0.123*
computer	(0.062)	(0.062)	(0.063)	(0.063)
Indicator variables for CY	CY5	CY5b	CY5	CY5b
	CY15	CY10	CY15	CY10
		CY20		CY20
Constant	0.863***	0.866***	0.865***	0.868***
	(0.125)	(0.126)	(0.126)	(0.128)
Observations	588	588	588	588
R squared	0.319	0.322	0.315	0.318
Kleibergen–Paap rk Wald statistic	17.72	18.51	7.41	7.56
p-value for underidentification	0.0000	0.0000	0.0065	0.0060
Effective F-statistic	14.322	14.150	10.722	10.619

Notes: This table reports the results of the test for weak instrument proposed by Montiel Olea and Pflueger (2013) which is designed for linear models. Only the first-stage results are reported. Estimated coefficients for the linear models are reported. The numbers in parentheses are standard errors that are clustered at the *part* level. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table A3. Risk of dirty fuel on physical symptoms (Kerosene as a dirty fuel)

Dependent variable: $Symp_i$	(1)	(2)	(3)	(4)	(5)
Probit models:	Standard	Standard	2SRI	2SRI	HAS
Panel A: Coefficients					
$Dirty_i$	3.234***	1.926***	3.021**	2.466	5.714***
	(0.332)	(0.657)	(1.265)	(1.785)	(1.105)
$Dirty_i$ × Age of the respondent		0.009		0.009	
		(0.018)		(0.022)	
$Dirty_i$ × Monthly household income		0.152***		0.165*	
		(0.058)		(0.094)	
First-stage residual ($\hat{u}_i$)			0.220	-0.629	
			(1.336)	(1.617)	
Misclassification α_0					0.111**
					(0.050)
Misclassification α_1					0.027***
					(0.009)
Other control variables	Yes	Yes	Yes	Yes	Yes
Panel B: Average Adjusted Predictions					
AAP at $Dirty_i = 0$	0.141	0.135	0.175	0.071	0.028
	(0.043)	(0.046)	(0.218)	(0.110)	(0.026)
AAP at $Dirty_i = 0.25$	0.385	0.391	0.420	0.303	0.265
	(0.045)	(0.045)	(0.207)	(0.199)	(0.076)
AAP at $Dirty_i = 0.5$	0.688	0.702	0.701	0.658	0.741
	(0.027)	(0.025)	(0.077)	(0.131)	(0.055)
AAP at $Dirty_i = 0.75$	0.897	0.903	0.894	0.902	0.964
	(0.021)	(0.019)	(0.033)	(0.031)	(0.020)
AAP at $Dirty_i = 1$	0.979	0.979	0.975	0.984	0.997
	(0.010)	(0.009)	(0.028)	(0.011)	(0.003)
Observations	588	588	588	588	588
Log Likelihood	-163.208	-161.065	-163.187	-160.938	-158.695
AIC	352.416	350.129	354.373	353.877	347.390
BIC	409.314	411.403	415.647	423.905	413.041

Notes: This table reports the estimation results of the objective risks. The classification of kerosene is changed from a clean fuel category to a dirty fuel category. Panel A reports estimated coefficients for each model. The results for the constant term and control variables are not reported. The numbers in parentheses are standard errors clustered at the *part* level in Columns 1 and 2, the bootstrap estimate of the standard errors clustered at the *part* level for Columns 3 and 4, and standard errors in Column 5. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Panel B reports the average adjusted predictions (AAPs) at each value of $Dirty_i$. The numbers in parentheses are delta-method standard errors.

Table A4. Risk of dirty fuel on physical symptoms (Subsample analysis: omitting kerosene and electricity users)

Dependent variable: $Symp_i$	(1)	(2)	(3)	(4)	(5)
Probit models:	Standard	Standard	2SRI	2SRI	HAS
Panel A: Coefficients					
$Dirty_i$	3.247***	2.176***	2.902**	2.621	5.508***
	(0.326)	(0.667)	(1.144)	(1.612)	(1.010)
$Dirty_i$ × Age of the respondent		-0.002		-0.003	
		(0.021)		(0.025)	
$Dirty_i$ × Monthly household income		0.178***		0.186	
		(0.069)		(0.114)	
First-stage residual ($\hat{u}_i$)			0.358	-0.498	
			(1.189)	(1.498)	
Misclassification α_0					0.097**
					(0.048)
Misclassification α_1					0.025***
					(0.009)
Other control variables	Yes	Yes	Yes	Yes	Yes
Panel B: Average Adjusted Predictions					
AAP at $Dirty_i = 0$	0.141	0.139	0.200	0.083	0.032
	(0.043)	(0.047)	(0.219)	(0.132)	(0.028)
AAP at $Dirty_i = 0.25$	0.387	0.397	0.444	0.325	0.281
	(0.045)	(0.045)	(0.187)	(0.204)	(0.076)
AAP at $Dirty_i = 0.5$	0.691	0.709	0.710	0.676	0.744
	(0.026)	(0.023)	(0.061)	(0.113)	(0.051)
AAP at $Dirty_i = 0.75$	0.899	0.907	0.893	0.907	0.962
	(0.020)	(0.018)	(0.036)	(0.024)	(0.019)
AAP at $Dirty_i = 1$	0.980	0.980	0.973	0.984	0.997
	(0.009)	(0.009)	(0.031)	(0.011)	(0.003)
Observations	565	565	565	565	565
Log Likelihood	-155.312	-152.869	-155.258	-152.800	-151.174
AIC	336.623	333.737	338.516	337.601	332.348
BIC	393.002	394.453	399.232	406.990	397.401

Notes: This table reports the estimation results of the objective risks. Households that use kerosene or electricity at least one day in the month (23 households) are omitted. Panel A reports estimated coefficients for each model. The results for the constant term and control variables are not reported. The numbers in parentheses are standard errors clustered at the *part* level in Columns 1 and 2, the bootstrap estimate of the standard errors clustered at the *part* level for Columns 3 and 4, and standard errors in Column 5. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Panel B reports the average adjusted predictions (AAPs) at each value of $Dirty_i$. The numbers in parentheses are delta-method standard errors.

Table A5. Risk of dirty fuel on physical symptoms (IV = Time to the market)

Dependent variable: $Symp_i$	(1)	(2)
Probit models:	2SRI	2SRI
Panel A: Coefficients		
$Dirty_i$	3.162**	2.766
	(1.354)	(1.869)
$Dirty_i$ × Age of the respondent		0.007
		(0.023)
$Dirty_i$ × Monthly household income		0.172
		(0.105)
First-stage residual ($\hat{u}_i$)	0.087	-0.907
	(1.428)	(1.744)
Other control variables	Yes	Yes
Panel B: Average Adjusted Predictions		
AAP at $Dirty_i = 0$	0.158	0.058
	(0.214)	(0.085)
AAP at $Dirty_i = 0.25$	0.406	0.279
	(0.218)	(0.188)
AAP at $Dirty_i = 0.5$	0.701	0.645
	(0.085)	(0.147)
AAP at $Dirty_i = 0.75$	0.900	0.904
	(0.030)	(0.036)
AAP at $Dirty_i = 1$	0.979	0.986
	(0.024)	(0.009)
Observations	588	588
Log Likelihood	-163.397	-161.102
AIC	354.794	354.204
BIC	416.068	424.231

Notes: This table reports the estimation results of the objective risks. The instrumental variable is "Time to the market." Panel A reports estimated coefficients for each model. The results for the constant term and control variables are not reported. The numbers in parentheses are standard errors clustered at the *part* level in Columns 1 and 2, the bootstrap estimate of the standard errors clustered at the *part* level for Columns 3 and 4, and standard errors in Column 5. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Panel B reports the average adjusted predictions (AAPs) at each value of $Dirty_i$. The numbers in parentheses are delta-method standard errors.

Table A6. Risk of dirty fuel for physical symptoms (IV = Time to the market, average marginal effects)

	(1)	(2)	(3)
Dependent variable:	$Dirty_i$	$Symp_i$	$Symp_i$
Probit models:	Fractional	2SRI	2SRI
$Dirty_i$		0.489**	0.657**
		(0.220)	(0.282)
Age of the respondent	0.000	0.001	0.002
	(0.001)	(0.001)	(0.001)
Hindu religion	-0.155***	0.006	0.030
	(0.038)	(0.047)	(0.051)
Years of education of the	-0.013***	0.001	0.003
respondent	(0.003)	(0.004)	(0.005)
Monthly household income	-0.024***	0.003	0.012
(thousand INR)	(0.004)	(0.007)	(0.011)
Household size	0.032***	0.004	-0.002
	(0.007)	(0.014)	(0.016)
Respondent is a housewife	-0.033	0.123**	0.156**
	(0.079)	(0.048)	(0.066)
Number of cooks in the	-0.015	-0.014	-0.010
household	(0.052)	(0.041)	(0.045)
Kitchen is located outside	-0.019	0.009	0.016
the dwelling space	(0.038)	(0.040)	(0.040)
CY5	-0.339***	0.084	0.121
	(0.053)	(0.113)	(0.087)
CY15	-0.281**	-0.066	0.006
	(0.116)	(0.098)	(0.123)
Household owns a personal	-0.122**	-0.117	-0.103
computer	(0.053)	(0.073)	(0.099)
$Time\ to\ the\ market_i$	0.003*		
	(0.001)		
First-stage residual ($\hat{u}_i$)		0.014	-0.137
		(0.220)	(0.267)
$Dirty_i$ × Age	No	No	Yes
$Dirty_i$ × Monthly income	No	No	Yes
Misclassification α_0	No	No	No
Misclassification α_1	No	No	No
Observations	588	588	588
Log Likelihood	-302.064	-163.397	-161.102
AIC	630.129	354.794	354.204
BIC	687.026	416.068	424.231

Notes: This table reports the average marginal effects. The numbers in parentheses are delta-method standard errors clustered at the *part* level in Columns 1–5 and delta-method standard errors in Column 6. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table A7. Risk of dirty fuel on physical symptoms (Logit)

Dependent variable: $Symp_i$	(1)	(2)	(3)	(4)
Probit models:	Standard	Standard	2SRI	2SRI
Panel A: Coefficients				
$Dirty_i$	5.943***	3.498***	5.751**	4.417
	(0.725)	(1.256)	(2.261)	(3.249)
$Dirty_i$ × Age of the respondent		0.024		0.024
		(0.036)		(0.044)
$Dirty_i$ × Monthly household income		0.234**		0.262
		(0.118)		(0.200)
First-stage residual ($\hat{u}_i$)			0.198	-1.117
			(2.287)	(2.936)
Other control variables	Yes	Yes	Yes	Yes
Panel B: Average Adjusted Predictions				
AAP at $Dirty_i = 0$	0.132	0.127	0.147	0.071
	(0.043)	(0.046)	(0.180)	(0.100)
AAP at $Dirty_i = 0.25$	0.389	0.392	0.408	0.300
	(0.051)	(0.051)	(0.213)	(0.206)
AAP at $Dirty_i = 0.5$	0.722	0.730	0.728	0.684
	(0.030)	(0.027)	(0.072)	(0.143)
AAP at $Dirty_i = 0.75$	0.914	0.916	0.913	0.916
	(0.021)	(0.019)	(0.030)	(0.026)
AAP at $Dirty_i = 1$	0.978	0.978	0.977	0.983
	(0.009)	(0.009)	(0.021)	(0.012)
Observations	588	588	588	588
Log Likelihood	-162.117	-160.677	-162.111	-160.548
AIC	350.234	349.355	352.222	353.096
BIC	407.131	410.629	413.496	423.124

Notes: This table reports the estimation results of the objective risks. Unlike Table 2, logit models are adopted. Panel A reports estimated coefficients for each model. The results for the constant term and control variables are not reported. The numbers in parentheses are standard errors clustered at the *part* level in Columns 1 and 2, the bootstrap estimate of the standard errors clustered at the *part* level for Columns 3 and 4, and standard errors in Column 5. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Panel B reports the average adjusted predictions (AAPs) at each value of $Dirty_i$. The numbers in parentheses are delta-method standard errors.

Table A8. Risk of dirty fuel on physical symptoms (Subsample analysis: omitting outliers)

Dependent variable: $Symp_i$	(1)	(2)	(3)	(4)	(5)
Probit models:	Standard	Standard	2SRI	2SRI	HAS
Panel A: Coefficients					
$Dirty_i$	3.364***	2.284***	2.637**	2.238	5.267***
	(0.337)	(0.605)	(1.304)	(1.793)	(0.919)
$Dirty_i$ × Age of the respondent		0.002		0.002	
		(0.017)		(0.021)	
$Dirty_i$ × Monthly household income		0.155**		0.154	
		(0.068)		(0.099)	
First-stage residual ($\hat{u}_i$)			0.760	0.054	
			(1.364)	(1.637)	
Misclassification α_0					0.100**
					(0.049)
Misclassification α_1					0.022**
					(0.009)
Other control variables	Yes	Yes	Yes	Yes	Yes
Panel B: Average Adjusted Predictions					
AAP at $Dirty_i = 0$	0.132	0.128	0.266	0.135	0.039
	(0.041)	(0.044)	(0.296)	(0.229)	(0.029)
AAP at $Dirty_i = 0.25$	0.381	0.388	0.501	0.396	0.284
	(0.044)	(0.044)	(0.212)	(0.252)	(0.071)
AAP at $Dirty_i = 0.5$	0.695	0.709	0.733	0.712	0.728
	(0.027)	(0.024)	(0.057)	(0.105)	(0.052)
AAP at $Dirty_i = 0.75$	0.906	0.911	0.892	0.911	0.956
	(0.020)	(0.018)	(0.050)	(0.025)	(0.020)
AAP at $Dirty_i = 1$	0.983	0.983	0.967	0.982	0.996
	(0.008)	(0.008)	(0.047)	(0.019)	(0.003)
Observations	584	584	584	584	584
Log Likelihood	-158.698	-156.676	-158.448	-156.675	-154.785
AIC	343.396	341.351	344.896	345.349	339.569
BIC	400.205	402.530	406.074	415.268	405.118

Notes: This table reports the estimation results of the objective risks. The top four observations with cumulative years of clean fuel usage until the first round (CY) are omitted. These four observations exceed 25 years with CY. Panel A reports estimated coefficients for each model. The numbers in parentheses are standard errors clustered at the *part* level in Columns 1 and 2, the bootstrap estimate of the standard errors clustered at the *part* level for Columns 3 and 4, and standard errors in Column 5. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Panel B reports the average adjusted predictions (AAPs) at each value of $Dirty_i$. The numbers in parentheses are delta-method standard errors.

Table A9. Risk of dirty fuel on physical symptoms (continuous CY and $CY15$)

Dependent variable: $Symp_i$	(1)	(2)	(3)	(4)	(5)
Probit models:	Standard	Standard	2SRI	2SRI	HAS
Panel A: Coefficients					
$Dirty_i$	3.166***	1.936***	2.342*	1.700	5.780***
	(0.332)	(0.628)	(1.359)	(1.929)	(1.200)
$Dirty_i$ × Age of the respondent		0.007		0.007	
		(0.018)		(0.021)	
$Dirty_i$ × Monthly household income		0.150**		0.145	
		(0.061)		(0.094)	
First-stage residual ($\hat{u}_i$)			0.867	0.274	
			(1.326)	(1.686)	
Misclassification α_0					0.129**
					(0.051)
Misclassification α_1					0.026***
					(0.010)
Other control variables	Yes	Yes	Yes	Yes	Yes
Panel B: Average Adjusted Predictions					
AAP at $Dirty_i = 0$	0.155	0.150	0.328	0.196	0.024
	(0.046)	(0.049)	(0.333)	(0.334)	(0.025)
AAP at $Dirty_i = 0.25$	0.405	0.411	0.540	0.454	0.252
	(0.047)	(0.046)	(0.209)	(0.282)	(0.081)
AAP at $Dirty_i = 0.5$	0.701	0.715	0.740	0.730	0.731
	(0.027)	(0.025)	(0.047)	(0.090)	(0.057)
AAP at $Dirty_i = 0.75$	0.902	0.908	0.880	0.905	0.962
	(0.020)	(0.018)	(0.061)	(0.036)	(0.021)
AAP at $Dirty_i = 1$	0.980	0.980	0.956	0.976	0.997
	(0.009)	(0.009)	(0.066)	(0.034)	(0.003)
Observations	588	588	588	588	588
Log Likelihood	-165.458	-163.459	-165.179	-163.436	-160.668
AIC	356.916	354.919	358.359	358.873	351.335
BIC	413.813	416.193	419.633	428.900	416.986

Notes: This table reports the estimation results of the objective risks. Unlike Table 2, the models used in this table include a simple linear control for cumulative years of clean fuel usage until the first round (CY) and $CY15$. Panel A reports estimated coefficients for each model. The numbers in parentheses are standard errors clustered at the *part* level in Columns 1 and 2, the bootstrap estimate of the standard errors clustered at the *part* level for Columns 3 and 4, and standard errors in Column 5. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Panel B reports the average adjusted predictions (AAPs) at each value of $Dirty_i$. The numbers in parentheses are delta-method standard errors.

Table A10. Risk of dirty fuel on physical symptoms (Three dummy variables)

Dependent variable: $Symp_i$	(1)	(2)	(3)	(4)	(5)
Probit models:	Standard	Standard	2SRI	2SRI	HAS
Panel A: Coefficients					
$Dirty_i$	3.291***	2.042***	3.209**	2.655	5.144***
	(0.341)	(0.656)	(1.355)	(1.919)	(0.845)
$Dirty_i$ × Age of the respondent		0.008		0.008	
		(0.019)		(0.023)	
$Dirty_i$ × Monthly household income		0.146**		0.160	
		(0.063)		(0.103)	
First-stage residual ($\hat{u}_i$)			0.085	-0.702	
			(1.411)	(1.740)	
Misclassification α_0					0.106**
					(0.047)
Misclassification α_1					0.021**
					(0.009)
Other control variables	Yes	Yes	Yes	Yes	Yes
Panel B: Average Adjusted Predictions					
AAP at $Dirty_i = 0$	0.141	0.136	0.153	0.068	0.044
	(0.043)	(0.045)	(0.204)	(0.107)	(0.029)
AAP at $Dirty_i = 0.25$	0.389	0.395	0.402	0.299	0.282
	(0.045)	(0.045)	(0.211)	(0.205)	(0.067)
AAP at $Dirty_i = 0.5$	0.694	0.708	0.699	0.660	0.710
	(0.027)	(0.024)	(0.080)	(0.137)	(0.052)
AAP at $Dirty_i = 0.75$	0.902	0.908	0.901	0.906	0.943
	(0.020)	(0.018)	(0.031)	(0.029)	(0.021)
AAP at $Dirty_i = 1$	0.981	0.981	0.979	0.986	0.991
	(0.009)	(0.008)	(0.025)	(0.010)	(0.006)
Observations	588	588	588	588	588
Log Likelihood	-161.742	-159.916	-161.740	-159.773	-158.656
AIC	351.485	347.832	353.479	353.546	349.312
BIC	412.759	409.106	419.130	427.951	419.339

Notes: This table reports the estimation results of the objective risks. Unlike Table 2, the models used in this table include three indicator variables created by using CY. These indicator variables are $CY5b$, $CY10$ and $CY20$. See notes to Figure A10 for more detail. Other notes are same as that of Table A9.

Table A11. Estimation of the subjective risk belief function (robustness checks)

	Panel A: Kerosene and electricity users are omitted				
Dependent variable: s_i	(1)	(2)	(3)	(4)	(5)
Model of the health risk	Probit	Probit	2SRI	2SRI	HAS
Interaction terms	No	Yes	No	Yes	No
Estimated risk (r_i)	0.675***	0.673***	0.732***	0.628***	0.587***
	(0.011)	(0.011)	(0.012)	(0.010)	(0.010)
Constant	0.091***	0.093***	0.040***	0.134***	0.167***
	(0.006)	(0.006)	(0.007)	(0.005)	(0.005)
p-value (H_0: $\frac{\partial \psi}{\partial r} = 1$)	0.000	0.000	0.000	0.000	0.000
Fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	1130	1130	1130	1130	1130
R squared	0.870	0.869	0.869	0.870	0.869
	Panel B: IV = Time to the market				
Dependent variable: s_i	(1)	(2)	(3)	(4)	(5)
Model of the health risk			2SRI	2SRI	
Interaction terms			No	Yes	
Estimated risk (r_i)			0.686***	0.607***	
			(0.011)	(0.010)	
Constant			0.080***	0.153***	
			(0.006)	(0.005)	
p-value (H_0: $\frac{\partial \psi}{\partial r} = 1$)			0.000	0.000	
Fixed effects			Yes	Yes	
Observations			1176	1176	
R squared			0.868	0.868	

Table A11 (continued). Estimation of the subjective risk belief function

	Panel C: Logit models				
Dependent variable: s_i	(1)	(2)	(3)	(4)	(5)
Model of the health risk	Logit	Logit	2SRI-logit	2SRI-logit	
Interaction terms	No	Yes	No	Yes	
Estimated risk (r_i)	0.666***	0.662***	0.679***	0.618***	
	(0.011)	(0.011)	(0.011)	(0.010)	
Constant	0.100***	0.104***	0.088***	0.144***	
	(0.006)	(0.006)	(0.006)	(0.005)	
p-value (H_0: $\frac{\partial \psi}{\partial r} = 1$)	0.000	0.000	0.000	0.000	
Fixed effects	Yes	Yes	Yes	Yes	
Observations	1176	1176	1176	1176	
R squared	0.868	0.867	0.868	0.868	
	Panel D: Outliers in CY are omitted				
Dependent variable: s_i	(1)	(2)	(3)	(4)	(5)
Model of the health risk	Probit	Probit	2SRI	2SRI	HAS
Interaction terms	No	Yes	No	Yes	No
Estimated risk (r_i)	0.662***	0.659***	0.798***	0.665***	0.589***
	(0.011)	(0.011)	(0.013)	(0.011)	(0.010)
Constant	0.101***	0.105***	-0.022***	0.099***	0.166***
	(0.006)	(0.006)	(0.008)	(0.006)	(0.005)
p-value (H_0: $\frac{\partial \psi}{\partial r} = 1$)	0.000	0.000	0.000	0.000	0.000
Fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	1168	1168	1168	1168	1168
R squared	0.867	0.866	0.859	0.866	0.867

Table A11 (continued). Estimation of the subjective risk belief function

	Panel E: Continuous CY and CY15				
Dependent variable: s_i	(1)	(2)	(3)	(4)	(5)
Model of the health risk	Probit	Probit	2SRI	2SRI	HAS
Interaction terms	No	Yes	No	Yes	No
Estimated risk (r_i)	0.685***	0.680***	0.884***	0.721***	0.580***
	(0.011)	(0.011)	(0.015)	(0.012)	(0.009)
Constant	0.081***	0.086***	-0.098***	0.047***	0.174***
	(0.006)	(0.006)	(0.010)	(0.007)	(0.005)
p-value (H_0: $\frac{\partial \psi}{\partial r} = 1$)	0.000	0.000	0.000	0.000	0.000
Fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	1176	1176	1176	1176	1176
R squared	0.870	0.869	0.854	0.867	0.869
	Panel F: Three dummy variables for CY				
Dependent variable: s_i	(1)	(2)	(3)	(4)	(5)
Model of the health risk	Probit	Probit	2SRI	2SRI	HAS
Interaction terms	No	Yes	No	Yes	No
Estimated risk (r_i)	0.671***	0.667***	0.681***	0.614***	0.592***
	(0.011)	(0.011)	(0.011)	(0.010)	(0.010)
Constant	0.094***	0.098***	0.084***	0.146***	0.164***
	(0.006)	(0.006)	(0.006)	(0.005)	(0.005)
p-value (H_0: $\frac{\partial \psi}{\partial r} = 1$)	0.000	0.000	0.000	0.000	0.000
Fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	1176	1176	1176	1176	1176
R squared	0.867	0.867	0.867	0.867	0.862

Notes: This table reports the results of the estimation of the subjective risk belief function. The numbers in parentheses are standard errors clustered at the respondent level. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table A12. The share of "extreme responses" by groups of characteristic variables

	(1)	(2)	(3)
Variable: $Extreme\ SBs$ $(\Delta s_i = 1)$		Mean (SD) [Sample size]	
Panel A: Continuous variables	Low	Middle	High
Age of the respondent	0.102	0.127	0.086
	(0.303) [196]	(0.334) [196]	(0.282) [196]
Years of education of the	0.107	0.102	0.107
respondent	(0.310) [196]	(0.303) [196]	(0.310) [196]
Monthly household income	0.102	0.102	0.112
(thousand INR)	(0.303) [196]	(0.303) [196]	(0.316) [196]
Household size	0.091	0.112	0.112
	(0.289) [196]	(0.316) [196]	(0.316) [196]
Cumulative years of clean fuel	0.096	0.091	0.127
usage until the first round (CY)	(0.296) [196]	(0.289) [196]	(0.334) [196]
Panel B: Binary variables	0		1
Hindu religion	0.055		0.127***
	(0.229) [180]		(0.333) [408]
Respondent is a housewife	0.071		0.107
	(0.262) [28]		(0.309) [560]
Number of cooks in the	0.106		0.096
household is more than one	(0.308) [526]		(0.298) [62]
Kitchen is located outside	0.109		0.086
the dwelling space	(0.312) [495]		(0.281) [93]
Household owns a personal	0.100		0.184
computer	(0.300) [550]		(0.392) [38]

Notes: This table reports the share of samples with "extreme responses" by groups of characteristic variables. In panel A, the means are reported by three groups of characteristic variables: low (lower third), middle (middle third) and high (upper third). In panel B, the means are reported by events for binary characteristic variables by events. Standard deviations are reported in parentheses. The sample sizes for each group are reported in brackets. We randomly ranked and classified the samples that took the same value. The share of samples with "extreme responses" are statistically significantly different in a dummy variable for "Hindu religion" (*p*-value of 0.000). ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table A13. Risk of dirty fuel on physical symptoms (probit, 2SRI, and HAS)

Dependent variable: $Symp_i$	(1)	(2)	(3)	(4)	(5)
Probit models:	Standard	Standard	2SRI	2SRI	HAS
Panel A: Coefficients					
$Dirty_i$	3.405***	2.254***	5.545*	4.466	5.451***
	(0.381)	(0.862)	(3.082)	(3.808)	(1.146)
$Dirty_i$ × Age of the respondent		-0.000		-0.001	
		(0.030)		(0.041)	
$Dirty_i$ × Monthly household income		0.180*		0.183	
		(0.108)		(0.151)	
First-stage residual ($\hat{u}_i$)			-2.128	-2.172	
			(3.123)	(3.274)	
Misclassification α_0					0.000
					(0.000)
Misclassification α_1					0.028*
					(0.015)
Other control variables	Yes	Yes	Yes	Yes	Yes
Panel B: Average Adjusted Predictions					
AAP at $Dirty_i = 0$	0.124	0.121	0.017	0.015	0.073
	(0.047)	(0.052)	(0.021)	(0.019)	(0.054)
AAP at $Dirty_i = 0.25$	0.365	0.371	0.120	0.119	0.389
	(0.060)	(0.062)	(0.132)	(0.135)	(0.097)
AAP at $Dirty_i = 0.5$	0.679	0.691	0.445	0.453	0.815
	(0.041)	(0.041)	(0.333)	(0.353)	(0.049)
AAP at $Dirty_i = 0.75$	0.899	0.903	0.848	0.851	0.978
	(0.023)	(0.023)	(0.130)	(0.132)	(0.012)
AAP at $Dirty_i = 1$	0.981	0.980	0.988	0.987	0.999
	(0.009)	(0.009)	(0.009)	(0.010)	(0.001)
Observations	477	477	477	477	477
Log Likelihood	-103.992	-102.999	-103.674	-102.677	-98.618
AIC	233.984	233.998	235.349	237.355	225.236
BIC	288.161	292.343	293.694	304.035	283.581

Notes: This table reports the estimation results of the objective risks. Unlike Table 2, only 477 respondents who answered as *sick* to the question in the first round are used. Panel A reports estimated coefficients for each model. The numbers in parentheses are standard errors clustered at the *part* level in Columns 1 and 2, the bootstrap estimate of the standard errors clustered at the *part* level for Columns 3 and 4, and standard errors in Column 5. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Panel B reports the average adjusted predictions (AAPs) at each value of $Dirty_i$. The numbers in parentheses are delta-method standard errors.

Table A14. Risk of dirty fuel for physical symptoms (average marginal effects)

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable:	$Symp_i$	$Symp_i$	$Dirty_i$	$Symp_i$	$Symp_i$	$Symp_i$
Probit models:	Standard	Standard	Fractional	2SRI	2SRI	HAS
$Dirty_i$	0.409***	0.410***		0.664*	0.668*	0.327***
	(0.035)	(0.035)		(0.397)	(0.406)	(0.021)
Age of the respondent	0.001	0.001	-0.001	0.001	0.001	0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Hindu religion	-0.014	-0.013	-0.136***	0.019	0.020	-0.034
	(0.042)	(0.043)	(0.031)	(0.079)	(0.084)	(0.029)
Years of education of the	-0.001	-0.001	-0.012***	0.003	0.002	-0.002
respondent	(0.004)	(0.004)	(0.003)	(0.006)	(0.006)	(0.002)
Monthly household income	0.011**	0.013**	-0.013***	0.016*	0.018*	0.001
(thousand INR)	(0.005)	(0.006)	(0.004)	(0.009)	(0.010)	(0.004)
Household size	-0.003	-0.003	0.020***	-0.008	-0.008	-0.005
	(0.007)	(0.007)	(0.007)	(0.011)	(0.012)	(0.007)
Respondent is a housewife	0.075*	0.100*	-0.053	0.088*	0.119*	0.090***
	(0.041)	(0.059)	(0.076)	(0.046)	(0.072)	(0.033)
Number of cooks in the	0.017	0.019	-0.019	0.018	0.020	0.035
household	(0.042)	(0.046)	(0.055)	(0.046)	(0.053)	(0.033)
Kitchen is located outside	0.018	0.023	-0.021	0.024	0.028	0.046*
the dwelling space	(0.030)	(0.027)	(0.036)	(0.035)	(0.031)	(0.026)
CY is larger 5 years and smaller	0.110*	0.088**	-0.316***	0.217	0.135**	0.100**
than 15 years	(0.059)	(0.036)	(0.088)	(0.181)	(0.056)	(0.044)
CY is larger than 15 years	-0.054	-0.043	-0.254	0.036	0.045	0.079
	(0.128)	(0.161)	(0.161)	(0.215)	(0.173)	(0.069)
Household owns a personal	-0.100	-0.117	-0.122**	-0.069	-0.070	-0.037
computer	(0.061)	(0.103)	(0.056)	(0.092)	(0.136)	(0.039)
Time to road			0.003*			
			(0.002)			
First-stage residual ($\hat{u}_i$)				-0.255	-0.257	
				(0.385)	(0.397)	
$Dirty_i$ × Age	No	Yes	No	No	Yes	No
$Dirty_i$ × Monthly income	No	Yes	No	No	Yes	No
Misclassification α_0	No	No	No	No	No	Yes
Misclassification α_1	No	No	No	No	No	Yes
Observations	477	477	477	477	477	477
Log Likelihood	-103.992	-102.999	-221.809	-103.674	-102.677	-98.618
AIC	233.984	233.998	469.618	235.349	237.355	225.236
BIC	288.161	292.343	523.795	293.694	304.035	283.581

Notes: This table reports the average marginal effects for the analyses in Table A13. The numbers in parentheses are delta-method standard errors clustered at the *part* level in Columns 1–5 and delta-method standard errors in Column 6. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table A15. Risk of dirty fuel on physical symptoms (probit, 2SRI, and HAS)

Dependent variable: $Symp_i$	(1)	(2)	(3)	(4)	(5)
Probit models:	Standard	Standard	2SRI	2SRI	HAS
Panel A: Coefficients					
$Dirty_i$	2.970***	1.052	2.641	0.553	4.043***
	(0.783)	(3.532)	(4.164)	(6.377)	(1.413)
$Dirty_i$ × Age of the respondent		0.030		0.034	
		(0.083)		(0.113)	
$Dirty_i$ × Monthly household income		0.099		0.093	
		(0.160)		(0.278)	
First-stage residual ($\hat{u}_i$)			0.360	0.427	
			(4.182)	(4.613)	
Misclassification α_0					0.144***
					(0.054)
Misclassification α_1					0.000
					(0.000)
Other control variables	Yes	Yes	Yes	Yes	Yes
Panel B: Average Adjusted Predictions					
AAP at $Dirty_i = 0$	0.189	0.189	0.208	0.213	0.099
	(0.076)	(0.077)	(0.253)	(0.292)	(0.052)
AAP at $Dirty_i = 0.25$	0.425	0.438	0.421	0.432	0.264
	(0.070)	(0.073)	(0.108)	(0.136)	(0.057)
AAP at $Dirty_i = 0.5$	0.692	0.719	0.659	0.680	0.479
	(0.094)	(0.105)	(0.454)	(0.515)	(0.078)
AAP at $Dirty_i = 0.75$	0.882	0.899	0.845	0.859	0.636
	(0.088)	(0.087)	(0.539)	(0.547)	(0.105)
AAP at $Dirty_i = 1$	0.969	0.973	0.947	0.949	0.706
	(0.046)	(0.046)	(0.357)	(0.355)	(1.194)
Observations	111	111	111	111	111
Log Likelihood	-56.741	-56.603	-56.727	-56.585	-52.669
AIC	137.483	141.205	139.454	143.170	133.338
BIC	169.997	179.139	174.678	183.813	171.272

Notes: This table reports the estimation results of the objective risks. Unlike Table 2, only 111 respondents who answered as *healthy* to the question in the first round are used. Panel A reports estimated coefficients for each model. The numbers in parentheses are standard errors clustered at the *part* level in Columns 1 and 2, the bootstrap estimate of the standard errors clustered at the *part* level for Columns 3 and 4, and standard errors in Column 5. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Panel B reports the average adjusted predictions (AAPs) at each value of $Dirty_i$. The numbers in parentheses are delta-method standard errors.

Table A16. Risk of dirty fuel for physical symptoms (average marginal effects)

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable:	$Symp_i$	$Symp_i$	$Dirty_i$	$Symp_i$	$Symp_i$	$Symp_i$
Probit models:	Standard	Standard	Fractional	2SRI	2SRI	HAS
$Dirty_i$	0.854***	0.879***		0.759	0.764	0.620***
	(0.195)	(0.234)		(1.202)	(1.373)	(0.134)
Age of the respondent	-0.000	0.000	0.003	-0.000	0.001	-0.006*
	(0.003)	(0.004)	(0.002)	(0.005)	(0.005)	(0.004)
Hindu religion	0.184	0.163	-0.002	0.180	0.160	0.241*
	(0.144)	(0.118)	(0.059)	(0.221)	(0.194)	(0.126)
Years of education of the	0.004	0.006	-0.002	0.004	0.005	-0.002
respondent	(0.008)	(0.009)	(0.005)	(0.011)	(0.013)	(0.009)
Monthly household income	-0.003	-0.000	-0.010	-0.004	-0.001	-0.046**
(thousand INR)	(0.010)	(0.013)	(0.008)	(0.020)	(0.026)	(0.018)
Household size	0.032*	0.033*	0.020	0.035	0.035	0.054**
	(0.018)	(0.018)	(0.019)	(0.040)	(0.044)	(0.023)
Respondent is a housewife						
Number of cooks in the	-0.220**	-0.221**	-0.056	-0.230	-0.233	0.017
household	(0.102)	(0.105)	(0.093)	(0.174)	(0.193)	(0.126)
Kitchen is located outside	-0.020	-0.017	-0.132	-0.028	-0.025	-0.979
the dwelling space	(0.160)	(0.162)	(0.094)	(0.261)	(0.289)	(363.540)
CY is larger 5 years and smaller	0.104	0.101	-0.066	0.097	0.092	0.061
than 15 years	(0.111)	(0.106)	(0.057)	(0.248)	(0.259)	(0.079)
CY is larger than 15 years	-0.081	-0.073	-0.115*	-0.087	-0.080	0.094
	(0.110)	(0.104)	(0.065)	(0.128)	(0.173)	(0.178)
Household owns a personal	-0.125	-0.120	-0.132*	-0.134	-0.129	-1.254
computer	(0.142)	(0.132)	(0.070)	(0.249)	(0.255)	(70.775)
Time to road			0.006**			
			(0.003)			
First-stage residual ($\hat{u}_i$)				0.103		
				(1.199)		
$Dirty_i$ × Age	No	Yes	No	No	Yes	No
$Dirty_i$ × Monthly income	No	Yes	No	No	Yes	No
Misclassification α_0	No	No	No	No	No	Yes
Misclassification α_1	No	No	No	No	No	Yes
Observations	111	111	111	111	111	111
Log Likelihood	-56.741	-56.603	-52.330	139.454	143.170	133.338
AIC	137.483	141.205	128.652	174.678	183.813	171.272
BIC	169.997	179.139	161.166	-56.727	-56.585	-52.669

Notes: This table reports the average marginal effects for the analyses in Table A13. The numbers in parentheses are delta-method standard errors clustered at the *part* level in Columns 1–5 and delta-method standard errors in Column 6. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. "Respondent is a housewife" is omitted since if it takes zero, then it predicts $Symp_i = 0$ perfectly.

Table A17. Estimation of the subjective risk belief function (without the assumption of Markov process)

	Panel A: Conditional on *sick* in the day of the first-round survey				
Dependent variable: s_i	(1)	(2)	(3)	(4)	(5)
Model of the health risk	Probit	Probit	2SRI	2SRI	HAS
Interaction terms	No	Yes	No	Yes	No
Estimated risk (r_i)	0.321***	0.321***	0.284***	0.284***	0.284***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Constant	0.561***	0.562***	0.595***	0.596***	0.592***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
p-value (H_0: $\frac{\partial \psi}{\partial r} = 1$)	0.000	0.000	0.000	0.000	0.000
Fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	954	954	954	954	954
R squared	0.846	0.846	0.847	0.848	0.846
	Panel B: Conditional on *healthy* in the day of the first-round survey				
Dependent variable: s_i	(1)	(2)	(3)	(4)	(5)
Model of the health risk	Probit	Probit	2SRI	2SRI	HAS
Interaction terms	No	Yes	No	Yes	No
Estimated risk (r_i)	0.331***	0.327***	0.349***	0.345***	0.325***
	(0.014)	(0.014)	(0.015)	(0.016)	(0.016)
Constant	0.047***	0.049***	0.037***	0.038***	0.108***
	(0.008)	(0.008)	(0.009)	(0.009)	(0.006)
p-value (H_0: $\frac{\partial \psi}{\partial r} = 1$)	0.000	0.000	0.000	0.000	0.000
Fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	222	222	222	222	222
R squared	0.826	0.819	0.822	0.809	0.680

Notes: This table reports the results of the estimation of the subjective risk belief function that correspond to Tables A13 and A15. The numbers in parentheses are standard errors clustered at the respondent level. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

C Questionnaire used in the second round (English version)

Household Number	
To the enumerator: ***Please note down the household number as per the list given to you***	

QUESTIONNAIRE

May I have a couple of minutes of your time please? I will take 15-20 minutes only. We are conducting a survey about cooking fuel choice and related socio-economic and demographical information for a research project in Waseda University, Tokyo, Japan in collaboration with Global Change Program, Jadavpur University, Kolkata. The survey is taking place in two rounds- the first round was already completed in December, 2016-January, 2017 and we are conducting the second round of survey now.

Your household was randomly selected for the survey from the list of electoral rolls available in the website of Election Commission of India for the first round and since this is a repeat survey, we are visiting you again. I would like to ask you some questions about your household. All of the answers you give will be strictly confidential and will be anonymous. It will be used for research purpose only. They will not be shared with any service provider, and will not lead to any loss of social security or other social benefits.

We hope you will agree to answer the questions since your views are important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question. Do you agree to take part in the repeat survey?

Please sign if you agree to respond to our questions:

Signature of the respondent			
Address of the respondent ***(Please note down the complete address of the household)***			
Date of the survey			
Group Assigned (Please mark)	A	B	C
Name of the enumerator			
Signature of the enumerator			

Section-I: Identification of the respondent			
Sl no.	**Questions**	**Options**	**Code**
1a	Do you remember some enumerators visited your household for a survey last year in the similar time that asked about your choice of cooking fuel, your health status and few questions where you had to arrange the candies to express the subjective probabilities?	Yes	1
		No	0
To the enumerator:If YES proceed to b;if NO refer to Note to the enumerator			
b	Did you yourself take part in such a survey?	Yes	1
		No	0
To the enumerator:If YES proceed to c;if NO refer to Note to the enumerator and proceed to b,i			
b,i	Did you yourself take part in such a survey?	Yes	1
		No	0
c	Your name		
d	Your age		
e	Your mobile phone number		
Section-II: Infrastructural information			
2a	How long does it take to reach the nearest railway station from your house?		
b	Do you own some land?	Yes	1
		No	0
c	Do you have own any livestock?	Yes	1
		No	0
d	Approximate monthly expenditure (in Rs) [Please mention the amounts spend on the following heads]	Monthly consumption goods	
		Education	
		Medicine and Doctor	
		Others	
		Saving	
e	Do you have PC in the household?	Yes	1
		No	0
f	Do you have TV in the household?	Yes	1
		No	0
To the enumerator: If YES proceed to g;if NO proceed to k			
g	Do you have cable connection to your TV in your household?	Yes	1
		No	0
h	Do you have digital cable connection for your TV in your household?	Yes	1
		No	0
To the enumerator:If YES proceed to i;if NO proceed to k			
i	Is the antenna for the cable connection in your TV installed in your house?	Yes	1
		No	0
To the enumerator:If YES proceed to j			
j	How long does it take to go to the nearest cable service provider from your house?		
k	Do you have internet connection inyour household?	Yes	1

		No	0
To the enumerator:If YES proceed to l			
l	What is the source of internet connection in our household? [You can choose more than one option]	Internet connection from registered telephone office	
		Internet connection from private networks	
		Wire-free internet	
		Internet in mobile phones	
To the enumerator: If the respondent responds "Internet connection from registered telephone office", proceed to m			
m	How long does it take to go to the nearest telephone office from your house?		
Section-II: Cooking Fuel Related Information			
3a	What type of fuel does your household primarily use for cooking?	Electricity	1
		LPG	2
		Kerosene	3
		Coal/Charcoal	4
		Solid fuels like cow dung cakes, straw	5
		Firewood	6
		Others (please specify)	7
B	In the **last 30 days**, how many days did you use the following fuel for cooking?(Please mention for each fuel type. You can mention 0 if you have not used that variety of fuel)	Fuel type	Days
		Electricity	
		LPG	
		Kerosene	
		Coal/Charcoal	
		Solid fuels like cow dung cakes, straw	
		Firewood	
		Others (please specify)	
c	In the **last 30 days before last month**, how many days did you use the following fuel for cooking?(Please mention for each fuel type. You can mention 0 if you have not used that variety of fuel)	Fuel type	Days
		Electricity	
		LPG	
		Kerosene	
		Coal/Charcoal	
		Solid fuels like cow dung cakes, straw	
		Firewood	
		Others (please specify)	
d	What type of fuel does your household primarily use for lighting?	Electricity	1
		Kerosene	2
		Candle	3
		Others (please specify)	4
e	In the **last 30 days**, how many days did you use the following fuel for lighting?(Please mention for each fuel type. You can mention 0 if you have not used that variety	Fuel type	Days
		Electricity	
		Kerosene	

	of fuel)	Candle	
		Others (please specify)	
To the enumerator: Please note down the response for only the ***PRIMARY*** fuel unless stated otherwise. By primary fuel, we refer to the fuel used in the majority of the days.			
f	Since when (how many years ago) have you been using the current primary cooking fuel?		
g	Since when (how many years ago) have you been using the current primary fuel for lighting?		
h	What is the amount of primary cooking fuel consumed during **last month**?		
i	Do you have some opportunity to collect the cooking fuel by yourself/kids of the family?	Yes	1
		No	0
j	Do you have some opportunity to obtain cooking fuel from neighbors, friends or relatives?	Yes	1
		No	0
k	How much do you pay **last month** for your cooking fuel?		
l	What is the additional amount that you had paid **last month** (**if any**) to get cooking fuel?		
m	Do you receive any subsidy for your cooking fuel?	Yes	1
		No	0
To the enumerator:If ***YES*** proceed to n;if ***NO*** proceed to o.			
n	What is the amount of subsidy that you get **last month**?		
o	Did you switch your primary cooking fuel in the past 1 **year**?	Yes	1
		No	0
To the enumerator:If ***YES*** then proceed to p; if ***NO*** proceed to 4.			
p	Who had made the decision to switch the fuel?	Respondent	1
		Respondent's spouse	2
		Any others	3
q	You made a switch from which fuel to which fuel?	Previously used fuel	
		Currently used fuel	
r	What is the cost you incurred during making this switch?		
s	Consider your closest 5 relative households. How many of your 5 closest relative households have switched their **primary** cooking fuel in the past 6 years in a similar way as you had done?		
t	How many of your 5 closest neighbour households have switched their **primary** cooking fuels in the past 6 years in a similar way as you had done?		
u	How many of your 5 closest friend households have switched their **primary** cooking fuel in the past6 years in a similar way as you had done?		
v	How many of your 5 closest relative households have switched their **primary** cooking fuels in the last 1 year in a similar way as you had done?		
w	How many of your 5 closest neighbour households have switched their **primary** cooking fuels in the last 1 year in a similar way as you had done?		
x	How many of your 5 closest friend households have switched their **primary** cooking fuels in the last 1 year in a similar way as you had done?		

y	What are the time needed to cook an average meal in the fuel that you previously used and the fuel you currently use?	Time to cook with previous cooking fuel	
		Time to cook with current cooking fuel	
z	What was/were the reasons that influenced this switching of cooking fuel? [You can mention more than one reasons]	Cost is lower	
		Friends/neighbours/relatives have done so	
		Got it under the PMUY government scheme	
		Using the previous fuel was difficult	
		Health reasons	
		Others (please specify)	

Health Related Information			
[Code: Yes=1; No=0]			
4a	Did you (the respondent) experience these problems mentioned below in the last 30 days?		
Dry cough	Sore/Runny eyes	Difficulty breathing	
To the enumerator: Please mention the ***SCORE*** from the chart below depending on response from 4a:			
Note: If she is not suffering from any diseases in the last 30 days including today, score=0; if suffering from any one of the three, score=1; if suffering from any two of the three, score=2; if suffering from all three, score=3			
b	Did you (the respondent) suffer from the below mentioned disease for equal to or more than two weeks?		
Dry cough	Sore/Runny eyes	Difficulty breathing	
c	Are you (the respondent) still suffering from the diseases mentioned below?		
Dry cough	Sore/Runny eyes	Difficulty breathing	
5a	Did you (the respondent)visit any health care service provider for the problems mentioned below in the last 30 days?		
Dry cough	Sore/Runny eyes	Difficulty breathing	
To the enumerator:If ***YES*** then proceed to b; if ***NO*** proceed to 6a			
b	What is the amount that you spend for visiting health care service provider?		
6a	Did you (the respondent) consume any **prescribed** medicine for the problems mentioned below in the last 30 days?		
Dry cough	Sore/Runny eyes	Difficulty breathing	
To the enumerator:If ***YES*** then proceed to b; if ***NO*** proceed to 7a			
b	What is the amount that you spend for consuming the prescribed medicine?		
7a	Did you (the respondent) take any medicine that you bought **over the counter at a medicine store** for the problems mentioned below in the last 30 days?		
Dry cough	Sore/Runny eyes	Difficulty breathing	

To the enumerator:If ***YES*** then proceed to b; if ***NO*** proceed to 8a					
b	What is the amount that you spend for consuming the medicine that you bought **over the counter** at the medicine store?				
8a	Did you (the respondent) take any **homemade** medicine for the problems mentioned below in the last 30 days?				
Dry cough		Sore/Runny eyes		Difficulty breathing	
To the enumerator:If ***YES*** then proceed to b; if ***NO*** proceed to 9a					
b	What is the amount that you spend for consuming the homemade medicine?				
9a	Is the following statement true: You **did not participate**in your regular activity even for a day in a week in the last 30 days		Yes	1	
			No	0	
To the enumerator:If ***YES*** then proceed to b; if ***NO*** skip b and proceed to the next section.					
b	Are your disease symptoms the reason why you did not participate in regular activity?		Yes	1	
			No	0	
Subjective Probability-related Information					
I will now ask you a few questions regarding the likelihood of the occurrence of the following events. There is no right or wrong answer. I just want to know what you think. There are 10 candies in front of you. One candy denotes one chance of the occurrence of any event out of 10. To express how likely you think it is that a specific event will occur, please choose and put aside some candies from the lot. If you put ZERO candies on the plate, this means that you are SURE that the event will NOT happen. As you ADD candies, this means you think that the LIKELIHOOD that the event will happen INCREASES. If you put one or two candies, it means that you think the event is unlikely to happen but is still possible. If you pick five candies, this means that it is just as likely to happen as it is likely not to happen. If you pick eight candies, this means that the event is more likely to happen than not to happen. If you put TEN candies on the plate, this means that you are SURE the event WILL HAPPEN.					
To the enumerator: If SCORE calculated from Q3a is > 0, go to 10. If the SCORE is 0, skip 10 and go to 11					
10	How much do you think it is likely that exposure to smoke from burning cooking fuel cause your disease symptoms?				
To the enumerator: Please explain the health status definitions in the section V**A** of ***Note to the Enumerators.***					
11	Consider a hypothetical individual who is identical to you. Imagine that there are options regarding the primary fuel for cooking. In each health status situation, please answer how likely you think it is that she will become/remain sick in the next 30 days if she used [fuels] in all the previous 30 days?				
To the enumerator:Please ask only a likelihood of **Sick**. Please calculate 10 minus [candies for a likelihood of Sick] and confirm a likelihood of Healthy.					
Description of health status		Case-I: She is ***Healthy***		Case-II: She is ***Sick***	
Fuel used for cooking on all 30 days in the last month		LPG/Kerosene/ Electricity	Firewood/ Cow dung cakes/Coal	LPG/Kerosene/ Electricity	Firewood/Cow dung cakes/Coal
a	***Sick***				
b = 10 –a	***Healthy***				
Section-VI: Stated Risk Preference					
12	In thissection, we want to know about your risk taking behaviour. There are 3 questions. In each question, we will offer you two hypothetical alternatives: Plan A and Plan B- one where you will get some amount for surity (something like your monthly wage income) and in the other situation, you will face a lottery- you can win a large amount but there is also possibility that you will end up with a small amount. We would like you to choose either Plan A or Plan B for each question				

	A	B	Your choice	
a	Rs. 500	Rs. 100 with probability 0.2; Rs. 600 with probability 0.8	A	B
b	Rs. 500	Rs. 100 with probability 0.5; Rs.900 with probability 0.5	A	B
c	Rs. 500	Rs. 100 with probability 0.8; Rs. 2100 with probability 0.2	A	B

Section-VII: Willingness to Pay

13	We understand that it is very problematic to work in presence of smoke coming from burning of cooking fuels. If there is any program undertaken to provide better ventilation in cooking area or face mask such that the exposure to smoke is prevented but you need to pay for the preventive measure, then are you willing to pay the following amount annually?			
To the enumerator: Please ask the value according to the group id randomly assigned to you				
a	**Group ID**	**A**	**B**	**C**
	Are you willing to pay this amount?	**Rs. 500**	**Rs. 750**	**Rs. 100**
		Yes	Yes	Yes
		No	No	No
To the enumerator:If YES then proceed to b; if NO proceed to c				
b	**Group ID**	**A**	**B**	**C**
	Are you willing to pay this amount?	**Rs.1000**	**Rs. 1500**	**Rs. 200**
		Yes	Yes	Yes
		No	No	No
c	**Group ID**	**A**	**B**	**C**
	Are you willing to pay this amount?	**Rs.250**	**Rs. 375**	**Rs. 50**
		Yes	Yes	Yes
		No	No	No

Note to the enumerators

Section-I: Identification of the respondent

Section-IA:

If answer to question 1a is **NO,** please remind the people that last year Global Change Program, Jadavpur University had conducted a survey where we visited the households and asked about factors like educational qualification, income, occupation, cooking fuel used, how many neighbours/ friends/ relative households had used the fuel, health status. Furthermore, the respondents had to arrange some candies to express a number that reflected their subjective probability of occurrence of diseases.

Then, repeat question-1 again

Section-IB:

If the answer to question 1b is **NO**, please tell the person that since we are conducting a repeat survey**, we need to elicit the response from the same person who had responded to our survey last year** and ask to call the person who had responded to the survey last year.

If she is unavailable to answer the question at that moment, please proceed to the other households and return to this household after some time and proceed the survey from Q.b,1.

Section-II: Cooking Fuel Related Information Question 2r--2v

(1) The 'close' means that you regularly meet and/or talk with a member in the relative household.

(2) 'Relative household' means a household in which your relatives belong to. 'Relative household' does not mean an individual who is relative. Please note the difference between relative households and relatives (individuals).

Example: When your uncle and aunt live together in the same household, they are considered as one relative household.

(3) 'Neighbor household' means a household in which your neighbors belong to. Please note the difference between neighbor households and neighbors (individuals).

Section-V: Subjective Probability related Information

Section-VA: Definition of the Health status

Health statuses are defined as follows.

- ***Sick***
  In the last 30 days, an individual suffered from at least one of the three disease symptoms: (a) Dry cough, (b) Sore/Runny eyes, or (c) Difficulty in breathing.

- ***Healthy***
  In the last 30 days, an individual does not suffer from any of the three disease symptoms.

Note that, in this section, **reasons for disease symptoms can be anything**.

Section-VB: Definition of Treatment

Treatment is defined as follows.

- ***Treatment***
  An individual takes *medicines* for treatment of at least one of the three disease symptoms: (a) Dry cough, Sore, (b) Runny eyes, or (c) Difficulty in breathing.

Note that *medicines* include **ALL** medicines; (a) medicines prescribed by doctors, (b) those purchased over the counter at medicine stores, and(c)home-made medicines.

Health statuses are defined as follows.

- ***Sick***
  In the last 30 days, an individual suffered from at least one of the three disease symptoms: (a) Dry cough, (b) Sore /Runny eyes, or (c) Difficulty in breathing.

- ***Healthy***
  In the last 30 days, an individual does not suffer from any of the three disease symptoms.

Note that, in this section, **reasons for disease symptoms can be anything.**

D Questionnaire used in the first round (English version)

Household Number	
To the enumerator: ***Please note down the household number as per the list given to you***	

QUESTIONNAIRE

May I have a couple of minutes of your time please? I will take 20-25 minutes only. We are conducting a survey about cooking fuel choice and related socio-economic and demographical information for a research project in Waseda University, Tokyo, Japan in collaboration with Global Change Program, Jadavpur University, Kolkata. Your household was randomly selected for the survey from the list of electoral rolls available in the website of Election Commission of India. I would like to ask you some questions about your household. All of the answers you give will be strictly confidential and will be anonymous. It will be used for research purpose only. They will not be shared with any service provider, and will not lead to any loss of social security or other social benefits.

We hope you will agree to answer the questions since your views are important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question. Do you have any questions? May I begin interview now?

Please sign if you agree to respond to our questions:

Signature of the respondent	
Address of the respondent ***(Please note down the complete address of the household)***	
Mobile Number	
Name of the enumerator	
Signature of the enumerator	

1.***To the enumerator:*** *Is the household conservative or liberal*	Liberal	1
	Conservative	0

2. ***To the enumerator:*** *According to you, what is the attitude of the respondent towards this survey? (Please encircle the choice from the following)*				
Very much willing to participate	Somewhat willing to participate	Participated but indifferent	Participated but hostile	Very much hostile and did not participate
1	2	3	4	5

Household Demographics related information								
3 a	Household Size							
b	Number of earning members in the household							
c	Number of members who cooks in the household							
4	Please note down the information about the chef/ chief chef of the household, her spouse and her (***youngest***) child. [By chief chef, we refer to the member who is responsible for cooking for the majority of the days]							
(a) Name	(b) Age	(c) Marital Status	(d) Level of education	(e) Occupation	(f) Usual decision maker	(g) Total time spent in kitchen on an average day	(h) Total time spent in front of fire (stove) for cooking on an average day	

	Question	*Response*	*Code*
5	Religion (it is better to be perceived and noted by the enumerator)	Hindu	1
		Muslim	2
		Others (please specify)	3
6	Ethnicity/Caste	General	1
		Reserved Caste	2

Housing and Infrastructure related Information			
7	Does the household member own the dwelling?	Owns the dwelling	1
		Rents	2
		Uses without rent	3
8a	How much time does one have to spend to reach the nearest main road by walking?		
b	How much time does one have to spend to reach the nearest market by walking?		
c	How much time does one have to spend to reach the nearest health service by walking?		
d	How much time does one have to spend to reach the nearest medicine store by walking?		
9a	Location of kitchen	Cooking done within the space of dwelling area	1
		Separate space/room for kitchen inside the dwelling unit	2
		Kitchen is outside the dwelling area	3
		Others	4
b	Does the cooking area (except open-fire cooking arrangement) have an effective ventilation system (such as chimney or open window) apart from exhaust fan?	Yes	1
		No	0
10a	Does the household have access to electricity?	Yes	1
		No	0

b	Source of electricity	Legal connection	1
		Informal sources like hooking	0
c	How much did you pay for electricity on the last bill?	Rs.	
d	Does the household has access to internet	Yes	1
		No	0
e	Does the household have access to clean and safe drinking water?	Yes	1
		No	0
Income Status of the Household			
11a	Does the household own BPL card?	Yes	1
		No	0
b	Does the household possess ration card?	Yes	1
		No	0
c	Approximate monthly income (in Rs)	<Rs. 5,000 (~$75)	1
		Rs. 5,001-10,000 (~$75-150)	2
		Rs. 10,0001-30,000 (~$150-450)	3
		>Rs. 30,000 (>$450)	4
d	Approximate monthly expenditure (in Rs) [Please mention the amounts spend on the following heads]	Monthly consumption goods	
		Education	
		Medicine and Doctor	
		Others	
		Saving	
e	Is the household participating in any micro-finance program currently?	Yes	1
		No	0
f	Did the household participate in Pradhan Mantri Jan Dhan Yojana (Government scheme to provide bank account for all) recently?	Yes	1
		No	0

Asset Holding of the household			
12	Does the household own these assets?	Yes	No
a	Refrigerator		
b	TV		
c	Computer/Laptop		
d	Kerosene stove		
e	Gas oven		
f	Mobile phone (Ordinary non-smart phones)		
g	Smart phones		
h	Bicycle		
i	Motorbike/Scooter		
j	Investments/ Savings (LIC/ PF/MF/PO)		
k	Pass/Cheque book		

l	Farming machineries (Pump/Tiller/ Tractor/ Sprayer)		
m	Livestock		
n	Land		

Cooking Fuel

13a	What type of fuel does your household primarily use for cooking?	Electricity	1
		LPG	2
		Kerosene	3
		Coal/Charcoal	4
		Solid fuels like cow dung cakes, straw	5
		Firewood	6
		Others (please specify)	7
b	In the **last 30 days**, how many days did you use the following fuel?(Please mention for each fuel type. You can mention 0 if you have not used that variety of fuel)	Fuel type	Days
		Electricity	
		LPG	
		Kerosene	
		Coal/Charcoal	
		Solid fuels like cow dung cakes, straw	
		Firewood	
		Others (please specify)	

To the enumerator: Please note down the response for only the ***PRIMARY*** cooking fuel unless stated otherwise. By primary fuel, we refer to the fuel used in the majority of the days.

c	About **6 months ago**, which fuel did you use for the majority of the days?		
d	What is the amount of primary fuel consumed during **last month**?		
e	How do you get the cooking fuel?	Get delivered at home after booking	1
		Buy from market	2
		Collect by myself/children of the family	3
		Other	4
f	Do we have any opportunity to collect your fuel for free?	Yes	1
		No	0
g	How much do you pay **last month** for your cooking fuel?	Rs.	
h	What is the additional amount that you had paid **last month** (**if any**) to get cooking fuel?	Rs.	
i	Do you receive any subsidy for your cooking fuel?	Yes	1
		No	0

To the enumerator: If ***YES*** proceed to j; if ***NO*** proceed to k.

j	What is the amount of subsidy that you get **last month**?	Rs.	
k	Who makes the choice decision for cooking fuel in the house hold?	Respondent's spouse	1
		Respondent	2

		Any other member	3
l	Did you switch your primary cooking fuel in the past **5 years**?	Yes	1
		No	0

To the enumerator: If ***YES*** then proceed to m; if ***NO*** proceed to 14.

m	Who had made the decision to switch the fuel?	Respondent's spouse		1
		Respondent		2
		Any other member		3
n	You made a switch from which fuel to which fuel?	Previous:	Current:	
o	What is the cost you incurred during making this switch?	Rs.		
p	What are the time needed to cook an average meal in the fuel that you previously used and the fuel you currently use?	Previous	Current	

Social norms for fuel choice

14a	Consider your closest 5 relative **households**. Out of your closest 5 relative households, how many households use the following type of cooking fuel as their primary fuel? (Please mention the number for each fuel type) ***[To the enumerator:*** Please read notes in the section **14a** of ***Note to the Enumerators.]*** ***[To the enumerator: Please check that the total number should be equal to 5.]***	Fuel type	Number
		Electricity	
		LPG	
		Kerosene	
		Coal/Charcoal	
		Solid fuels like cow dung cakes	
		Firewood	
		Others (please specify)	
b	Consider your closest 5 neighbour **households**. Out of your closest 5neighbour households, how many households use the following type of cooking fuel as their primary fuel? (Please mention the number for each fuel type) ***[To the enumerator:*** Please read notes in the section **14b** of ***Note to the Enumerators.]*** ***[To the enumerator: please check that the total number should be equal to 5.]***	Fuel type	Number
		Electricity	
		LPG	
		Kerosene	
		Coal/Charcoal	
		Solid fuels like cow dung cakes	
		Firewood	
		Others (please specify)	
c	Consider your closest 5 friend **households**. Out of your closest 5 friend households, how many use the following type of cooking fuel as their primary fuel? (Please mention the number for each fuel type) ***[To the enumerator: Please check that the total number should be equal to 5.]***	Fuel type	Number
		Electricity	
		LPG	
		Kerosene	
		Coal/Charcoal	
		Solid fuels like cow dung cakes	
		Firewood	
		Others (please specify)	

Awareness about Pradhan Mantri Ujjwala Yojana (PMUY) Scheme

15a	Are you aware of the Pradhan Mantri Ujjwala Yojana (PMUY) Scheme where the government will bear the initial start-up cost for a new LPG connection?	Yes	1
		No	0

To the enumerator: If ***YES*** then proceed to b; if ***NO*** proceed to 16.

b	How did you come to know about this PMUY scheme?	Advertisements (TV/ Posters/ Billboards)	1
		Announcements in roads	2
		Relative/Friend/Neighbour had suggested	3
		Other sources	4
c	Have you participated in the PMUY scheme?	Yes and have already participated	1
		No but will participate soon	2
		I am not eligible to participate	3

To the enumerator: If ***YES and have already participated*** then proceed to ***d***; if ***else*** proceed to 1***6***.

d	Do you want to continue using the LPG that you have received from the PMUY scheme (if any) as your primary cooking fuel?	Yes	1
		No	0
e	According to you, how much will be your monthly expenditure if you want to continue using LPG as your primary fuel?		

Health Related Information

[Code: Yes=1; No=0]

16a Did you (the respondent) experience these problems mentioned below in the last 30 days?

Dry cough	Sore/Runny eyes	Difficulty breathing

To the enumerator: Please mention the ***SCORE*** from the chart below depending on response from 16a:

If she is not suffering from any diseases the last 30 days including today, score=0; if suffering from any one of the three, score=1; if suffering from any two of the three, score=2; if suffering from all three, score=3

b Did you (the respondent) suffer from the below mentioned disease for equal to or more than two weeks?

Dry cough	Sore/Runny eyes	Difficulty breathing

c Are you (the respondent) still suffering from the diseases mentioned below?

Dry cough	Sore/Runny eyes	Difficulty breathing

17a Did you (the respondent) visit any health care service provider for the problems mentioned below in the last 30 days?

Dry cough	Sore/Runny eyes	Difficulty breathing	Expenditure

b Did you (the respondent) take any medicine prescribed by a doctor for the problems mentioned below in the last 30 days?

Dry cough	Sore/Runny eyes	Difficulty breathing	Expenditure

c Did you (the respondent) take any homemade medicine for the problems mentioned below in the last 30 days?

Dry cough	Sore/Runny eyes	Difficulty breathing	Expenditure

18a	Is the following statement true: You did not participate	Yes	1

	in your regular activity even for a day in a week in the last 30 days.	No	0
To the enumerator: If ***YES*** then proceed to b; if ***NO*** skip 18b and proceed to the next section.			
b	Are your disease symptoms the reason why you did not participate in regular activity?	Yes	1
		No	0

Subjective Probability-related Information

I will now ask you a few questions regarding the likelihood of the occurrence of the following events. There is no right or wrong answer. I just want to know what you think. There are 10 candies in front of you. One candy denotes one chance of the occurrence of any event out of 10. To express how likely you think it is that a specific event will occur, please choose and put aside some candies from the lot. If you put ZERO candies on the plate, this means that you are SURE that the event will NOT happen. As you ADD candies, this means you think that the LIKELIHOOD that the event will happen INCREASES. If you put one or two candies, it means that you think the event is unlikely to happen but is still possible. If you pick five candies, this means that it is just as likely to happen as it is likely not to happen. If you pick eight candies, this means that the event is more likely to happen than not to happen. If you put TEN candies on the plate, this means that you are SURE the event WILL HAPPEN.

To the enumerator: **If *SCORE calculated from Q16a* is *1/2/3, go to 19.* If the *SCORE* is *0, skip 19* and *go to 20***

19	How much do you think it is likely that exposure to smoke from burning cooking fuel cause your disease symptoms?	

Consider an individual who is identical to you in terms of gender, age, income, household infrastructure, in your locality. In each heath status situation, please answer how much *you think* it is likely that each event will occur.

To the enumerator: Please explain the health status definitions in the section **20** of ***Note to the Enumerators.***

20	Suppose that the individual is [health status in the Description-column].How much is it likely that she will become/remain ***Sick*** in the next 3 months if she uses [fuel in the columns]?

To the enumerator: Please ask only a likelihood of ***Sick***. Please calculate 10 minus [candies for a likelihood of ***Sick***] and confirm a likelihood of ***Healthy***.

Description		Case-I: She is ***Healthy***		Case-II: She is ***Sick***	
Fuel used		LPG/ Kerosene/ Electricity	Firewood/ Cow dung cakes/ Coal	LPG/ Kerosene/ Electricity	Firewood/ Cow dung cakes/ Coal
a	***Sick***				
b = 10 –a	***Healthy***				

To the enumerator: Please explain the ***smoke-related*** health status definitions in the section **21** of ***Note to the Enumerators.***

21	Suppose that the individual is [***smoke-related*** health status in the Description-column]. How much is it likely that she will become/remain ***Sick from smoke*** in the next 3 months if she uses [fuel in the columns]?

To the enumerator: Please ask only a likelihood of ***Sick from smoke***. Please calculate 10 minus [candies for a likelihood of ***Sick from smoke***] and confirm a likelihood of ***Not sick from smoke***.

Description		Case-I: She is ***Not sick from smoke***		Case-II: She is ***Sick from smoke***	
Fuel used		LPG/ Kerosene/ Electricity	Firewood/ Cow dung cakes/ Coal	LPG/ Kerosene/ Electricity	Firewood/ Cow dung cakes/ Coal
a	***Sick from smoke***				
b = 10 –a	***Not sick from smoke***				

To the enumerator: Please explain the definition of ***Treatment*** in the section **22** of ***Note to the Enumerators.*** In addition, please explain the health status definitions in the section **22**.

22	Consider an individual who is identical to you in terms of gender, age, income, household infrastructure, cooking fuel use and level of exposure to smoke from cooking. Suppose that the individual is [health status in the Description-column]. How much is it likely that she become/remain ***Healthy*** in the next 3 months if she undergoes [treatment situation in the columns]?

To the enumerator: Please ask only a likelihood of ***Healthy***. Please calculate 10 minus [candies for a likelihood of ***Healthy***] and confirm a likelihood of ***Sick***.

Description		Case-I: She is ***Sick***		Case-II: She is ***Healthy***	
Treatment situation		Undergo treatment (Take medicines)	Do NOT undergo treatment	Undergo treatment (Take medicines)	Do NOT undergo treatment
a	***Healthy***				
b = 10 –a	***Sick***				

To the enumerator: Please explain the definition of each health status in the section **23** of ***Note to the Enumerators.***

23	Consider an individual who is identical to you in terms of gender, age, income, household infrastructure, in your locality and she is ***Healthy*** right now. How much is it likely that she will become [health status in rows]in the next 3 months if she uses [fuel in the columns]?

To the enumerator: Please ask only the likelihoods of ***High-level sick from smoke***and ***Low-level sick from smoke.*** Please calculate 10 minus [***total candies*** for a likelihood of ***the above two***]and confirm a likelihood of ***Not sick from smoke.*** Note that (a+b+c) should be 10.

Fuel used		LPG/ Kerosene/ Electricity	Firewood/ Cow dung cakes/ Coal
a	***High-level sick from smoke***		
b	***Low-level sick from smoke***		
c= 10– (a+b)	***Not sick from smoke***		

E Questionnaire used in the preliminary survey (English version)

Household Number	
House Number	

QUESTIONNAIRE

May I have a couple of minutes of your time please? I will take 15-20 minutes only. We are conducting a survey about cooking fuel choice and related socio-economic and demographical information for a research project in Waseda University, Tokyo, Japan in collaboration with Global Change Program, Jadavpur University, Kolkata. Your household was randomly selected for the survey. I would like to ask you some questions about your household. All of the answers you give will be strictly confidential and will be anonymous. It will be used for research purpose only. We hope you will agree to answer the questions since your views are important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question They will not be shared with any service provider, and will not lead to any loss of social security or other social benefits. In case you need more information about the survey, you may contact the person listed on this card. Do you have any questions? May I begin interview now?

Please sign if you agree to respond to our questions:

Signature of the respondent	
Address of the respondent	
Name of the interviewer	
Signature of the interviewer	

To the interviewer: Was the respondent willing to respond?	a. Yes and was ready to respond
	b. No but was ready to respond after persuasion
	c. Refused to respond

To the interviewer: What is the time taken for conducting the survey in this household?	

Name of the respondent											
Household Demographics											
1	Household Size *(to be filled in by the interviewer)*										
2	Information about all the household members who stay under the same roof and take food from the same kitchen including temporary stay-aways and excluding temporary guests										
Sl	(a) Name	(b) Sex	(c) Age	(d) Marital Status	(e) Educat-ional level	(f) Occupat ion	(g) House hold Head (Y/N)	(h) Relation -ship with Household Head	(i) Time spent in the hh in 24 hrs	(j) Decisi on maker (Y/N)	(k) Cooks regular -ly (Y/N)

	Question	*Response*	*Code*
3	Religion (it is better to be perceived and noted by the interviewer)	Hindu	1
		Muslim	2
		Buddhist	3
		Christian	4
		Others	5
4	Ethnicity/Caste	General	1
		SC	2
		ST	3
		OBC	4
Housing and Infrastructure related Information			
5	Does the household member own the dwelling?	Owns the dwelling	1
		Rents	2

		Uses without rent	3
		No specifies dwelling	4
6a	How much time does one has to spend to reach the nearest main road?	≤5min	1
		5-15min	2
		>15min	3
b	How much time does one has to spend to reach the nearest market?	≤5min	1
		5-15min	2
		>15min	3
c	How much time does one has to spend to reach the nearest health care service provider?	≤5min	1
		5-15min	2
		>15min	3
d	How much time does one has to spend to reach the nearest medicine store?	≤5min	1
		5-15min	2
		>15min	3
7a	Location of kitchen	Cooking done within the room where the respondent stays	1
		Separate space/room for kitchen inside the dwelling unit	2
		Kitchen is outside the dwelling area	3
		Open-fire cooking	4
		No cooking arrangements	5
b	Does the cooking area have an effective ventilation system (such as chimney or open window)?	Yes	1
		No	0
8a	Does the household have access to electricity?	Yes	1
		No	0
b	Source of electricity	Legal connection	1
		Self generated like solar	2
		Other informal sources like hooking	3
c	How much do you pay for electricity on average in three months?		
d	Does the household has access to internet	Yes	1
		No	0
e	Does the household have access to proper sanitary facility	Yes	1
		No	0
f	Does the household have access to clean and safe drinking water	Yes	1
		No	0
Income Status of the Household			
9a	Does the household fall under BPL category?	Yes	1
		No	0
b	Does the household possess ration card?	Yes	1
		No	0
c	Approximate total monthly income (in Rs)	<10,000	1

		10,000-30,000	2
		30,000-50,000	3
		>50,000	4
d	Approximate monthly expenditure (in Rs)	<10,000	1
		10,000-30,000	2
		30,000-50,000	3
		>50,000	4
10	Did the household participate in any micro-finance program in the past 5 years?	Yes	1
		No	0

Asset Holding of the household

11	Does the household own these assets? *If YES, number of a particular asset held*	Yes (Number)	No
i	Refrigerator		
ii	TV		
iii	Air-conditioner		
iv	Radio (separate from mobile phones)		
v	Computer/Laptop		
vi	Water purifier		
vii	Washing Machine		
viii	Microwave		
ix	Electric cook stove		
x	Gas oven		
xi	DVD/VCD		
xii	Music player (including MP3 player)		
xiii	Mobile phone		
xiv	Land phone (fixed phone)		
xv	Watch/Clock		
xvi	Bicycle		
xvii	Motorbike/Scooter		
xviii	Car		
xix	Investments (Bond/Stock/Gold/Real Estate)		
xx	Livestock (Cow, hen, goat)		
xxi	Power animals (animals used for cultivation eg: bullock)		
xxii	Land		
xxiii	Pump set		
xxiv	Power tiller		
xxv	Tractor		
xxvi	Sprayer		

Cooking Fuel

12a	What type of fuel does your household primarily use for cooking	Electricity	1
		LPG	2
		Kerosene	3
		Coal/Charcoal	4
		Solid fuels like dung cakes	5

		Fuelwood	6
		No arrangement of cooking	7
		Others (please specify)	8
b	What type of fuel does your household alternatively use for cooking	No alternative fuel is used	1
		Electricity	2
		LPG	3
		Kerosene	4
		Coal/Charcoal	5
		Solid fuels like dung cakes	6
		Fuelwood	7
		Others (please specify)	8
c	In the past 30 days, how many days did you use the following fuel? (**Please mention for each fuel type. You can mention 0 if you have not used that variety of fuel**) [*To the interviewer, please notice that the sum of the number of days should be equal to 30*]	Fuel type	Number of days
		i.Electricity	
		ii. LPG	
		iii.Kerosene	
		iv.Coal/Charcoal	
		v.Solid fuels like dung cakes	
		vi.Fuelwood	
		vii.Others (please specify)	
d	How do you get the cooking fuel?	Get delivered at home after booking	1
		Buy from designated outlets after booking	2
		Buy from the public distribution system	3
		Buy from market	4
		Collect by myself/children of the family from _____	5
		Other	6
e	How much do you pay on an average month for your cooking fuel?	Rs.	
f	Do you receive any subsidy for your cooking fuel?	Yes	1
		No	0
If YES proceed to g; if NO proceed to h			
g	What is the average amount of subsidy that you get last month?	Rs.	
h	If there is any additional amount that you need to pay to procure the fuel, then what is the amount?		
h	Are you aware of the Pradhan Mantri Ujjwala Yojana (PMUY) Scheme where the government will bear the initial start-up cost for a new LPG connection?	Yes and have already participated	1
		Yes and will participate	2
		Yes but not eligible	3
		Not aware	4
i	Who makes the choice decision for cooking fuel in the household?	Husband	1
		Wife	2

		Other elderly member	3
j	Did you switch your primary fuel in the past 5 years?	Yes	1
		No	0
If YES then proceed to k; if NO proceed to 13			
k	Who had made the decision to switch the fuel?	Husband	1
		Wife	2
		Other elderly member	3
l	You made a switch from which fuel to which fuel?	i. Previous: ii. Current:	
Social Norms for Fuel Choice			
13a	Out of your closest 5 relatives, how many use the following type of cooking fuel as their primary fuel? (Please mention the number for each fuel type) *[To the interviewer, please check that the total number should be equal to 5]*	Fuel type	Number of relatives
		i.Electricity	
		ii.LPG	
		iii.Kerosene	
		iv.Coal/Charcoal	
		v.Solid fuels like dung cakes	
		vi.Fuelwood	
		vii.No arrangement of cooking	
		viii.Others (please specify)	
b	Out of your closest 5 neighbours, how many use the following type of cooking fuel as their primary fuel? (Respond for each fuel type) *[To the interviewer, please check that the total number should be equal to 5]*	Fuel type	Number of neighbours
		i.Electricity	
		ii.LPG	
		iii.Kerosene	
		iv.Coal/Charcoal	
		v.Solid fuels like dung cakes	
		vi.Fuelwood	
		vii.No arrangement of cooking	
		viii.Others (please specify)	
c	Out of your closest 5 friends, how many use the following type of cooking fuel as their primary fuel? (Respond for each fuel type) *[To the interviewer, please check that the total number should be equal to 5]*	Fuel type	Number of friends
		i.Electricity	
		ii.LPG	
		iii.Kerosene	
		iv.Coal/Charcoal	
		v.Solid fuels like dung cakes	
		vi.Fuelwood	
		vii.No arrangement of cooking	
		viii.Others (please specify)	
d	Did any of your closest 5 relatives have switched cooking fuel in past 5 years?	Yes	1
		No	0
If YES go to e; if NO go to f			

e	Did any of your closest 5 relatives have switched cooking fuel in past 5 years like the way you have done **(if you had switched fuel in last 5 years?)**	Yes	1
		No	0
f	Did any of your closest 5 neighbours have switched cooking fuel in past 5 years?	Yes	1
		No	0
	If YES go to g; if NO go to h		
g	Did any of your closest 5 neighbours have switched cooking fuel in past 5 years like the way you have done **(if you had switched fuel in last 5 years?)**	Yes	1
		No	0
h	Did any of your closest 5 friends have switched cooking fuel in past 5 years?	Yes	1
		No	0
	If YES go to h; if NO go to i		
i	Did any of your closest 5 friends have switched cooking fuel in past 5 years like the way you have done **(if you had switched fuel in last 5 years?)**	Yes	1
		No	0
	Lifestyle Factors		
14a	What is the time spent for cooking on an average day in the household?		
b	How many times is meal cooked in this household on an average day?	1	1
		2	2
		>2	3
c	How many times in an average week do you take pre-processed food (like instant noodles)?	≤2	1
		2-5.	2
		>5	3
	Awareness/ Perception about the polluting nature of the fuel		
15a	According to you, how clean is the fuel you use for cooking	Very clean; little or no pollution	1
		Moderately clean; little pollution	2
		Dirty; moderate pollution	3
		Very dirty; high pollution	4
		No idea about the cleanliness or pollution level	5
b	Rank the reasons why do you use the existing cooking fuel(1-most important, 8-least important)	Reason	Rank
		i. Cost effective	
		ii. Initial upfront cost was affordable	
		iii. Ease of accessibility and use and convenient	
		iv. Cannot afford any other alternative	
		v. Low level of pollution	
		vi. Food tastes better when cooked with the fuel that is used	
		vii. Friends/Relatives also use it	
		viii. Social status symbol	

Health Related Inquiries

16 Did the household members experience these common health problems in the last 30-60 days? [**Please note the number of days of regular work/activity missed if answer is YES**] { *Please maintain the order of the entry as done in Part-I*} {Y= Yes, D= Number of days of regular activity missed, N=No}

Sl. No.	Name	i. Cold /Flu			ii. Dry cough			iii. Itchy rash			iv. Headache			v. Wheezing during expiration			vi. Difficulty breathing			vii. Tightness in chest			viii. Sore/Runny eyes			ix. Blurred/Double vision			x. Cough with phlegm		
		Y	D	N	Y	D	N	Y	D	N	Y	D	N	Y	D	N	Y	D	N	Y	D	N	Y	D	N	Y	D	N	Y	D	N
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0

17a Is the household member still suffering from the above-mentioned diseases? *{Please maintain the order of the entry as done in Part-I}*

Sl. No.	Name	i. Cold /Flu		ii. Dry cough		iii. Itchy rash		iv. Headache		v. Wheezing during expiration		vi. Difficulty breathing		vii. Tightness in chest		viii. Sore/Runny eyes		ix. Blurred/Double vision		x. Cough with phlegm	
		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
		1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
		1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
		1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
		1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
		1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
		1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
		1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
		1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0

		1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
		1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
b	Did the above-mentioned disease continue for equal to or more than two weeks for the household member? *{Please maintain the order of the entry as done in Part-I}*																				
Sl. No.	Name	i. Cold /Flu		ii. Dry cough		iii. Itchy rash		iv. Headache		v. Wheezing during expiration		vi. Difficulty breathing		vii. Tightness in chest		viii. Sore/Runny eyes		ix. Blurred/Double vision		x. Cough with phlegm	
		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
		1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
		1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
		1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
		1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
		1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
		1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
		1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
		1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
		1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
		1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0

18a	Did the household members visit/need to visit any health care service provider for these common health problems in the last 30-60 days? [Please note the type of health care service provider if answer is YES] {Y=Yes; T=Type of health care service provider visited; N=No} { Please maintain the order of the entry as done in Part-I} (Codes of type of health care service provider : Community health care/Primary health care=1; Govt. hospital=2;Private hospital= 3;Dispensary=4;Private doctor= 5;Private compounder / nurse= 6;Auxillary Nurse/Midwife=7; Rural Medical Practitioner (RMP)=8;Homeopathic= 9;Ayurvedic kabiraj= 10;Quack= 11;Yunani =12,Ojha/Gunin /traditional healer =13)																														
Sl. No.	Name	i. Cold /Flu			ii. Dry cough			iii. Itchy rash			iv. Headache			v. Wheezing during expiration			vi. Difficulty breathing			vii. Tightness in chest			viii. Sore/Runny eyes			ix. Blurred/Double vision			x. Cough with phlegm		
		Y	T	N	Y	T	N	Y	T	N	Y	T	N	Y	T	N	Y	T	N	Y	T	N	Y	T	N	Y	T	N	Y	T	N
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0

		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0

b On visiting the health care service provider, did the household member receive the following? **[Please note the amount paid if answer is YES]** *{ Please maintain the order of the entry as done in Part-I}*

Sl. No.	Name	Total amount paid for the visit *(to be filled in by the interviewer)*	i. Consultation			ii. Medication (given by the health service)			iii. Medicine (to be bought outside)			iv. Injection			v. Pathological Test			vi. Transportation and others		
			Yes	Amt	No	Yes	Amt	No	Yes	Amt	No	Yes	Amt	No	Yes	Amt	No	Yes	Amt	No
			1		0	1		0	1		0	1		0	1		0	1		0
			1		0	1		0	1		0	1		0	1		0	1		0
			1		0	1		0	1		0	1		0	1		0	1		0
			1		0	1		0	1		0	1		0	1		0	1		0
			1		0	1		0	1		0	1		0	1		0	1		0
			1		0	1		0	1		0	1		0	1		0	1		0
			1		0	1		0	1		0	1		0	1		0	1		0
			1		0	1		0	1		0	1		0	1		0	1		0
			1		0	1		0	1		0	1		0	1		0	1		0
			1		0	1		0	1		0	1		0	1		0	1		0

c Did the household members take/need to take any medicine for these common health problems in the last 30-60 days? **[Please note the amount paid if answer is YES]** *{ Please maintain the order of the entry as done in Part-I}*

Sl. No.	Name	i. Cold /Flu			ii. Dry cough			iii. Itchy rash			iv. Headache			v. Wheezing during expiration			vi. Difficulty breathing			vii. Tightness in chest			viii. Sore/Runny eyes			ix. Blurred/Double vision			x. Cough with phlegm		
		Y	Amt	N	Y	Amt	N	Y	Amt	N	Y	Amt	N	Y	Amt	N	Y	Amt	N	Y	Amt	N	Y	Amt	N	Y	Amt	N	Y	Amt	N
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0

		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0
		1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0	1		0

<table>
<tr><th colspan="6">Subjective Beliefs related to sickness</th></tr>
<tr><td colspan="6">I will now ask you few questions about the chance of occurrence of the following events. There is no right or wrong answer. I just want to know what you are thinking.
There are 10 nuts in the cup. I would like you to choose some nuts out of these 10 nuts and put them in the plate to express what you think the likelihood or chance is, of a specific event happening. One nut represents one chance out of 10. If you do not put any nuts in the plate, it means you are sure that the event will NOT happen. As you add nuts, it means that you think the likelihood that the event will occur, increases.
For example, if you put 1 or 2 beans, it means you think the event is not likely to happen, but it is still possible. If you pick 5 nuts, it means that it is just as likely it happens as it does not happen (50-50). If you pick 8 nuts, it means the event is more likely to happen than not to happen. If you put 10 nuts in the plate, it means you are sure the event will happen.
Let me give you a more realistic example. Imagine that we are playing ludo using a dice. Say, when asked about the chance that you will have a six when the dice is rolled, you put 8 nuts in the plate. This means that you believe that you will get six, 8 out of 10 times on average if we roll the dice for a long time.
[To the interviewer please describe the individual separately from right panel in place of [Individual] mentioned in the question.]</td></tr>
<tr><td colspan="3">Individual</td><td>You</td><td>Your spouse</td><td>Your kids</td></tr>
<tr><td>19</td><td colspan="2">How much is it likely that the [Individual] is currently suffering from with bronchial diseases or vision related diseases like chronic cough, breathing trouble, runny eyes or double vision which is due to indoor air pollution coming from cooking fuels?</td><td></td><td></td><td></td></tr>
<tr><td>20a</td><td colspan="5">Now, consider a healthy individual of your gender in your locality who does not have any sickness related to IAP right now</td></tr>
<tr><td></td><td colspan="3">According to you, how much is it likely that the individual will be [intensities mention in the following rows] infected with bronchial diseases or vision related diseases like chronic cough, breathing trouble, runny eyes or double vision in the next 1 year if she uses the [fuel mentioned in the following columns]?</td><td>Dirty fuel like firewood, cow dung cake</td><td>Clean fuel like LPG, kerosene</td></tr>
<tr><td>i</td><td colspan="3">severely affected i.e., she cannot take part in her regular activity (even if it is for a day)</td><td></td><td></td></tr>
<tr><td>ii</td><td colspan="3">moderately affected i.e., she can participate in her regular activity even though she has been infected</td><td></td><td></td></tr>
<tr><td>20b</td><td colspan="5">Now, consider a healthy individual of your spouse's gender in your locality who does not have any sickness related to IAP right now</td></tr>
<tr><td></td><td colspan="3">According to you, how much is it likely that the individual will be [intensities mention in the following rows] infected with bronchial diseases or vision related diseases like chronic cough, breathing trouble, runny eyes or double vision in the next 1 year if she uses the [fuel mentioned in the following columns]?</td><td>Dirty fuel like firewood, cow dung cake</td><td>Clean fuel like LPG, kerosene</td></tr>
<tr><td>i</td><td colspan="3">severely affected i.e., she cannot take part in her regular activity (even if it is for a day)</td><td></td><td></td></tr>
<tr><td>ii</td><td colspan="3">moderately affected i.e., she can participate in her regular activity even though she has been infected</td><td></td><td></td></tr>
<tr><td>20c</td><td colspan="5">Now, consider a healthy individual of your kid's gender in your locality who does not have any sickness related to IAP right now</td></tr>
</table>

	According to you, how much is it likely that the individual will be [intensities mention in the following rows] infected with bronchial diseases or vision related diseases like chronic cough, breathing trouble, runny eyes or double vision in the next 1 year if she uses the [fuel mentioned in the following columns]?		Dirty fuel like firewood, cow dung cake	Clean fuel like LPG, kerosene
i	severely affected i.e., she cannot take part in her regular activity (even if it is for a day)			
ii	moderately affected i.e., she can participate in her regular activity even though she has been infected			
21	I would like you to consider the likelihood that somebody catches infections as time goes by. This is an imaginary person, and I am going to describe her to you. As time goes by, she is susceptible to more pollution, smoke from cooking, seasonal variations and thus can be more and more infected in one hand but on the other hand, she can also get cured or even after getting cured, she can be sick again.			
a	The hypothetical individual is identical to you in terms of gender, age, income, household infrastructure and level of exposure to smoke from cooking. The additional descriptions are given in the panel below			
	Individual	A	B	C
	Description	The hypothetical individual is healthy	The individual has bronchial/vision related sickness like chronic cough, breathing trouble, runny eyes. However, the individual still can take part in her regular activity even though she is sick.	The individual has bronchial/vision related sickness like chronic cough, breathing trouble, runny eyes. However, the individual is sick enough and cannot take part in any of her regular activity.
	According to you, how much is it likely that the [Individual] will survive healthily in the following periods?			
i	3 months from now			
ii	6 months from now			
iii	1 year from now			
iv	2 year from now			
b	The hypothetical individual is identical to your spouse in terms of gender, age, income, household infrastructure and level of exposure to smoke from cooking. The additional descriptions are given in the panel below			
	Individual	A	B	C
	Description	The hypothetical individual is healthy	The individual has bronchial/vision related sickness like chronic cough, breathing trouble, runny eyes. However, the individual still can take part in her regular activity even though she is sick.	The individual has bronchial/vision related sickness like chronic cough, breathing trouble, runny eyes. However, the individual is sick enough and cannot take part in any of her regular activity.
	According to you, how much is it likely that the [Individual] will survive healthily in the following periods?			
i	3 months from now			
ii	6 months from now			
iii	1 year from now			

iv	2 year from now			
c	The hypothetical kid is identical to your kid in terms of gender, age, income, household infrastructure and level of exposure to smoke from cooking. The additional descriptions are given in the panel below			
	Individual	A	B	C
	Description	The hypothetical kid is healthy	The kid has bronchial/vision related sickness like chronic cough, breathing trouble, runny eyes. However, the individual still can take part in her regular activity even though she is sick.	The kid has bronchial/vision related sickness like chronic cough, breathing trouble, runny eyes. However, the individual is sick enough and cannot take part in any of her regular activity.
	According to you, how much is it likely that the [Individual] will survive healthily in the following periods?			
i	3 months from now			
ii	6 months from now			
iii	1 year from now			
iv	2 year from now			

-END-

Comments:

Reference

Chattopadhyay M, Arimura TH, Katayama H, Sakudo M, Yokoo H-F. Subjective probabilistic expectations, household air pollution, and health: Evidence from cooking fuel use patterns in West Bengal, India. *Resource and Energy Economics*, 2021;66; 101262.