

# Indoor Air Pollution and Health in Developing Countries

<b>Submission date</b> 01/03/2011	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 28/04/2011	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 17/01/2020	<b>Condition category</b> Respiratory	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Acute respiratory (lung) infections are the leading killer of children worldwide and indoor air pollution due to biomass (e.g., wood) burning is thought to be a principal cause. However, no study has experimentally studied why so many rural households use inferior cooking technologies with potentially devastating health consequences. This study will address these limitations in current knowledge about indoor air pollution. The study's major objective is to assess why households choose to cook with traditional cooking technologies by randomly allocating various incentives and conditions under which improved cookstoves can be adopted.

### Who can participate?

Household heads representative of households in two study districts (Hatia and Jamalpur) will complete surveys, which will include information about all household members (all ages, male and female, almost exclusively ethnic Bengalis) and women, all ethnicities in Bangladesh (all speak Bangla).

### What does the study involve?

The study has two parts. The first is a population-representative survey of rural households stated preferences about cooking technologies. The second is a trial that offers cookstoves to households, randomly assigning cookstove types, prices, and household members to which offers were made (male and female household heads) in the districts of Jamalpur and Hatia in Bangladesh.

### What are the possible benefits and risks of participating?

The main benefits of participation are the opportunity to obtain a new cookstove (if a participant chooses) and the creation of new knowledge about the determinants of cookstove demand; the main risk associated with participation is loss of confidentiality in the research process.

### Where is the study run from?

The project is a collaboration between Stanford University, Yale University, and BRAC.

When is the study starting and how long is it expected to run for?  
The study ran from July 2006 to February 2011.

Who is funding the study?  
The study is funded by the Woods Institute for the Environment and the Shorenstein Asia-Pacific Research Center at Stanford University, the National Science Foundation, the DFID/LSE/Oxford International GrowthCentre, the National Institute of Child Health and Human Development, and the Yale Climate and Energy Initiative for support.

Who is the main contact?  
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## Contact information

**Type(s)**  
Scientific

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## Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

**Secondary identifying numbers**  
N/A

## Study information

**Scientific Title**  
Indoor Air Pollution and Health in Developing Countries: An Intervention Study in Bangladesh

**Study objectives**  
Acute respiratory infections are the leading killer of children worldwide and indoor air pollution due to biomass combustion is thought to be a principal cause. However, no study has

experimentally studied why so many rural households use inferior cooking technologies with potentially devastating health consequences. This study will address these limitations in current knowledge about indoor air pollution.

The study's major objective is to assess why households choose to cook with traditional cooking technologies by randomising various incentives and conditions under which improved cookstoves can be adopted.

#### **Ethics approval required**

Old ethics approval format

#### **Ethics approval(s)**

The Stanford IRB approved the project protocol on 07/06/2006 (ref: Stanford IRB protocol 6454)

#### **Study design**

Randomised controlled interventional trial

#### **Primary study design**

Interventional

#### **Secondary study design**

Randomised controlled trial

#### **Study setting(s)**

Other

#### **Study type(s)**

Screening

#### **Participant information sheet**

Not available in web format, please use the contact details below to request a patient information sheet

#### **Health condition(s) or problem(s) studied**

Indoor Air Pollution

#### **Interventions**

Randomised on the basis of:

1. Price
2. Information about the stove adoption choices of opinion leaders
3. A choice between two types of cookstoves and pre-determined prices
4. Whether or not cookstove offers were made to male or female household heads

#### **Intervention Type**

Other

#### **Phase**

Not Applicable

#### **Primary outcome measure**

Adoption of an improved cookstove

**Secondary outcome measures**

No secondary outcome measures

**Overall study start date**

06/07/2006

**Completion date**

28/02/2011

## Eligibility

**Key inclusion criteria**

1. Household heads representative of households in two study districts (Hatia and Jamalpur) will complete surveys, which will include information about all household members (all ages, male and female, almost exclusively ethnic Bengalis) and women, all ethnicities in Bangladesh (all speak Bangla)
2. The inclusion of pregnant women in the pilot project is necessary because the health behaviors of pregnant women in selecting household fuel sources are important because of their implications for the health of both women and unborn fetuses

**Participant type(s)**

Patient

**Age group**

Adult

**Sex**

Both

**Target number of participants**

3,000 representative rural Bangladeshi households

**Key exclusion criteria**

A representative sample of household heads from study regions was chosen. In some cases we selected men, and in others we selected women (and so women were excluded in the former, men in the latter). Otherwise, there were none.

**Date of first enrolment**

06/07/2006

**Date of final enrolment**

28/02/2011

## Locations

**Countries of recruitment**

Bangladesh

United States of America

**Study participating centre**  
**CHP/PCOR**  
Stanford  
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94305

## **Sponsor information**

### **Organisation**

Woods Institute for the Environment, Stanford University

### **Sponsor details**

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### **Sponsor type**

Research council

### **ROR**

<https://ror.org/00f54p054>

## **Funder(s)**

### **Funder type**

University/education

### **Funder Name**

Woods Institute for the Environment - The Stanford University (USA)

## **Results and Publications**

### **Publication and dissemination plan**

Not provided at time of registration

**Intention to publish date**

**Individual participant data (IPD) sharing plan**

**IPD sharing plan summary**

Not provided at time of registration

**Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	03/07/2012		Yes	No