



The High Price of Cooking

Cooking has become one of the most dangerous daily activities for women in the developing world, according to the Global Alliance for Clean Cookstoves. Exposure to smoke and pollution from inefficient traditional cookstoves and open fires kills 4 million people annually and causes cancer, pneumonia, heart and lung disease, burns, and blindness. Women and young children are especially vulnerable given the time spent near the stoves, but the whole family is affected. Even when fuel is freely available, women using traditional methods pay too high a price for cooking.



The Benefits of an Improved Stove

Improved cookstoves save fuel and produce far less smoke—better for the environment, better for all those breathing the air around the cookstove. More efficient stoves reduce exposure to illness-inducing smoke and to physical and sexual risks that women and girls can face when collecting fuel. The time savings can also free up women and girls to focus on income generation, schooling, recreation, and other productive opportunities. As is often the case with other health issues, too often the actual *audience*, consumers or end users, is not consulted when products such as cookstoves are developed. Instead planners develop the “ideal” product or program from a health and energy point of view. Consequently, the stoves are not appealing to consumers, who end up not using them, negating all potential benefits.

What Do Cooks Want? What Will They Pay?

In Bangladesh, WASHplus has teamed up with key stakeholders to open the market to new improved cookstoves by conducting a Consumer Preference and Willingness to Pay study of five types of new stoves, to better reflect the needs and wants of Bangladeshi cooks and families. Simply stated, when stoves deliver what people want, they are more likely to buy and use the new, improved cookstoves.

WASHplus worked with local NGOs to conduct a mixed-method study that uses a modified TIPS or Trials of Improved Practices method—a process of engaging audiences as consultants to identify feasible solutions and try options over time—that is familiar to many CORE Group members. Researchers added the “elicitation questions” of the BEHAVE framework to better understand what motivates cooks to use—or not use—the new stoves.

Consumer Preference Trials

In-home testing over time

- 5 stove types, 3 homes for each, in 2 regions (south and northwest) 4 villages each=120 households
- Representative of market—wood as primary fuel
- Semi-structured questionnaires—qualitative and quantitative
 - Installation and baseline
 - 3-day initial assessment/problem solving visit
 - 21-day final survey
- Willingness to pay assessment, 2 methods
- Kitchen performance tests to measure actual fuel use, and reported stove use
- Stove use monitoring systems to measure actual stove use
- Indoor air pollution monitoring

What Did People Like About the Stoves?



Key Findings



- Households felt ALL STOVES WERE GOOD STOVES and recognized many benefits
- NONE of the 5 stoves (as currently produced) meet all—or even most—consumer needs
- NONE would completely replace traditional stoves
- Cook satisfaction with the improved stoves DECREASED over the 3-week trial when compared to their responses after 3 days of use

Problems Encountered & User Solutions

Problems	Solutions suggested by Users
Not stable while stirring	Make the stove stable
Ash builds up quickly	Add ash tray
Cannot cook in second pot due to lack of heat	Increase heat in the second pot by placing fuel chamber between first and second pot
Cannot cook large quantities of food like rice and takes longer to cook larges quantities	Larger sizes of stoves should be available
Fuel chamber small so wood fall off the opening and charred wood and embers fall out	Fuel chamber should be larger
Cannot use large wood pieces/cannot chop wood pieces, cannot effortlessly feed wood.	Address problems related to wood size
Flame does not spread	Flame should reach vessel and be visible

Some of the problems encountered by cooks and the changes suggested will be addressed by stove manufacturers that will modify the stoves to better address local cooking patterns and cooks’ preferences. Other problems reveal the need for specific consumer education and outreach (noted by the red lines through the suggestions) and will be incorporated into point-of-sale education, stove demonstrations, and outreach programs. This consumer preferences research will inform larger cookstove dissemination projects currently underway in Bangladesh with USAID and World Bank funding, so that they can best meet consumer needs and increase the likelihood of achieving expected benefits.

The USAID WASHplus project supports healthy households and communities by creating and delivering interventions that lead to improvements in WASH and indoor air pollution. This five-year project (2010-2015) is funded through USAID’s Bureau for Global Health and led by FHI 360 in partnership with CARE and Winrock International. For more information contact WASHplus Deputy Director Julia Rosenbaum at jrosenbaum@fhi360.org. For a copy of the consumer preferences study, IAP information, and resources visit the WASHplus website: <http://www.washplus.org/countries/Bangladesh>.