



BEHAVIOR CHANGE APPROACHES FOR CLEAN COOKING

BRIEF 4: BARRIERS, FACILITATORS, AND MOTIVATORS TO CORRECT, CONSISTENT AND EXCLUSIVE USE OF CLEAN COOKING TECHNOLOGY

DEFINING THE PROBLEM

- ▶ Enabling access to and uptake of clean cooking technology is a key step for addressing the diverse and detrimental impacts associated with traditional cooking methods. However, monitoring carried out after purchase frequently shows limited adoption of the new technology and a resistance to completely abandoning traditional stoves.
- ▶ The reasons given for partial adoption are varied, but reoccurring themes include the inability to cook certain foods, difficulty lighting and controlling the new technology or the need to process fuel in a different and sometimes more time consuming way than with the traditional device.
- ▶ Even with the dissemination of the cleanest cookstoves, without correct, consistent and exclusive or near-exclusive use of the new cooking technology, the necessary health and environmental impacts will not be achieved.

POTENTIAL SOLUTIONS

Three USAID|TRAction-funded research projects tested a range of behavior change approaches, with the ultimate goal of increasing the acquisition and correct use of clean cookstoves and fuels [see

“Stove and fuel performance are fundamental to a technology’s potential to achieve WHO indoor air quality targets within kitchens and reduce fuel consumption. Additional levers are also important for realizing these benefits, including usage of the new stove, displacement of the traditional stove, and ventilation.”¹

Introductory Brief in this series]. The projects provided several lessons on methods to promote the correct and appropriate use of the new cooking technology.

1. Promoting Use

RECOMMENDATIONS

PROJECT EXAMPLES

Allocate time and resources to identify clean stoves or combination of stoves that are easy to use and allow the cooks in the target communities to carry out all tasks currently performed on the traditional device.

The Impact Carbon team asked 20 households to use two stove types for ~2 weeks each. A qualitative researcher visited each of the households several times to collect data on perceptions of each stove type and overall stove preferences. This process identified the optimal technology to meet the cooking needs of consumers in these communities.

Provide support and training before and after purchase.

Observation of stove use carried out by the PATH team within homes after purchase showed that cooking demonstrations and village health teams served to promote and support correct stove use. This support was essential for encouraging stove use, especially given that the new stove required very different operating techniques than the traditional methods.

Ensure households have easy and regular access to the fuels required to use the stove correctly.

PATH reported a 42% relative increase in Top-Lit UpDraft (TLUD) stove usage in households that had access to pre-processed fuel or a bow saw for cutting wood. Usage was determined by temperature sensors placed on all stoves in the house. However, absolute usage levels remained low, due in part to the perceived inability of the stove to cook some local staple foods.

1 Johnson MA, Chiang RA. Quantitative Stove Use and Ventilation Guidance for Behavior Change Strategies. *Journal of Health Communication: International Perspectives*. 2015; 20(S1): 6-9.

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Translating Research into Action, TRAction, is funded by United States Agency for International Development (USAID) under cooperative agreement No. GHS-A-00-09-00015-00. The project team includes prime recipient, University Research Co., LLC (URC), Harvard University School of Public Health (HSPH), and sub-recipient research organizations.

FIGURE 1: The transition from traditional cooking methods to cleaner cooking technology needs to be complete and consistent for consumers to realize the potential benefits.



Photo Credit: Tim Raabe, GTZ



Photo Credit: Impact Carbon

NEXT STEPS TO SUSTAINED AND EXCLUSIVE USE

It was beyond the scope of these TRAction-sponsored research projects to monitor and understand longer-term patterns and determinants of stove use. Therefore in July 2015, the USAID|TRAction Project in partnership with the Global Alliance for Clean Cookstoves launched three new research projects. The research is intended to identify key determinants influencing the sustained correct, consistent, and exclusive use of clean cooking technologies in order to inform future implementation efforts to reduce household air pollution (HAP) and ultimately decrease the burden of disease in women and children. The findings will inform a theory of change, through which the identified determinants of clean cooking adoption are built into an evidence-based implementation framework that can guide future efforts to reduce HAP exposure. The research will help to inform future investments in the mitigation of household air pollution.

The three projects, due to commence in August 2015, are presented below.

UNC and Health Builders/Access Project-Rwanda

Led by Dr. Pamela Jagger, UNC and partner Health Builders/Access Project-Rwanda will evaluate the adoption of biomass pellet cookstoves distributed by Inyenyeri, a Rwanda-based company that leases stoves to interested households and sells biomass fuel pellets to these households. The goal of this research is to assess the determinants of sustained adoption, the impact of the Inyenyeri business model on adoption, and resultant changes in household air pollution levels.

UCSF and Universidad Del Valle De Guatemala

UCSF will partner with the Universidad del Valle de Guatemala (UVG) to conduct research, jointly led by Dr. Lisa Thompson (UCSF) and Anaité Diaz Artiga (UVG), in peri-urban Guatemala. The research will focus on liquid

petroleum gas (LPG) stoves distributed by GenteGas, a Guatemalan social enterprise that trains women to sell stoves and LPG and provide educational outreach. The goal of this research is to evaluate household air pollution awareness and behavior change as a result of GenteGas educational campaigns, as well as to assess sustained adoption of LPG stoves.

Kintampo Health Research Center and Mailman School of Public Health at Columbia University

Kintampo Health Research Center, along with partners from the Mailman School of Public Health at Columbia University, will assess the adoption of LPG stoves distributed by Ghana's Rural LPG Program, which promotes LPG use in rural Ghana. Principle investigators Drs. Kwaku Asante (Kintampo) and Darby Jack (Columbia) will work together to evaluate characteristics of households that may predict LPG use, as well as facilitators and barriers to sustained use of LPG and the adoption of clean cooking technologies.

Please visit <http://www.tractionproject.org/research-areas/household-air-pollution> for more information about the research projects

TRACTION PROJECT OVERVIEW

The Translating Research Into Action (TRAction) Project, funded by the U.S. Agency for International Development, focuses on implementation science—which seeks to develop, test, and compare approaches to more effectively deliver health interventions, increase utilization, achieve coverage, and scale-up evidence-based interventions. TRAction supports implementation research to provide critically-needed evidence to program implementers and policy-makers addressing maternal and child health issues.

For more information on the TRAction Project:
www.tractionproject.org ► tracinfo@urc-chs.com