

Public Health Fact Sheet

THE CHALLENGE

More than 40% of the world's population - or almost 3 billion people - still rely on solid fuels for their cooking and heating needs. Daily exposure to toxic smoke from traditional cooking practices is one of the world's biggest - but least well-known - killers. Penetrating deep into the lungs of its victims, household air pollution (HAP) from cooking with solid fuels is responsible for 4.3 million premature deaths - exceeding deaths attributable to malaria or tuberculosis, with women and children the most affected. It also causes a range of deadly chronic and acute health effects such as child pneumonia, lung cancer, chronic obstructive pulmonary disease, and heart disease, as well as low birth-weights in children whose exposure starts in the womb.

THE SOLUTION

The sustained use of clean cookstoves and fuels can dramatically reduce smoke emissions and the resulting exposure, which can reduce the burden of disease associated with household air pollution, saving lives and improving livelihoods of millions. Research evidence focused on children's pneumonia suggests that dramatic reductions in exposures are required to achieve health benefits. As a result, substantial health benefits can likely only be achieved with intensive, near exclusive adoption of extremely low emission technologies.

Photo credit: UN Foundation/Alex Kamweru

KEY STATS

- 4th** Household air pollution is the fourth biggest health risk in the developing world
- 4.3 million** Number of people who die worldwide from exposure to cookstove smoke
- 7.7%** Percent of global mortality due to household air pollution
- 500,000** Number of children who die each year from acute lower respiratory infections including pneumonia due exposure to household air pollution
- 90** Babies exposed in the womb are born 90 grams lighter at birth
- 500,000** Number of deaths due to ambient air pollution caused by traditional cooking

ADDITIONAL HEALTH IMPACTS

ILLNESS:

Toxic smoke exposure from cooking leads to serious problems for the health and livelihoods of these families. Women in developing countries are also at risk of head and spinal injuries, pregnancy complications from the strenuous task of carrying heavy loads of firewood or other fuels, and may also suffer from gender-based violence, animal attacks, dehydration, and skin disorders. Frequent exposure to cookstove smoke can also cause disabling health impacts like cataracts, and is the leading cause of blindness in developing countries. Health effects are especially deadly for children under the age of five in developing countries: nearly half of all pneumonia deaths among this age group occur as a result of smoke exposure.



BURNS & INJURY:

Burns from open fires and unsafe cookstoves are another insidious risk faced by poor households dependent on kerosene, open fires, and unstable metal or clay cookstoves, contributing to a substantial percentage of the estimated 195,000 burn deaths that occur annually. Because burns require prompt and sophisticated medical intervention often lacking in remote areas of the world, such injuries often result in debilitating scarring and loss of movement in their victims.

EXPANDING THE RESEARCH BASE

The Alliance is working to expand on the existing base of evidence demonstrating the health benefits of adopting clean cooking solutions:

- **Child Survival:** Results expected throughout 2016 on the impacts of pneumonia and birth outcomes in Ghana, Nepal, and Nigeria.
- **Noncommunicable Diseases (NCDs):** Funding up to three studies in 2016 to evaluate the impacts of reduced HAP on indicators of chronic respiratory and cardiovascular disease.
- **Burns:** Working with WHO, CDC, and a global network of burn surgeons to develop an international burns registry to estimate the proportion of severe burns due to cooking; also supporting pilot studies on strategies to prevent severe burns and injuries.
- **Household to Ambient Air Pollution:** Supporting research to better estimate the relationship between household and ambient air pollution in India and China.
- **Global Evaluation Network:** Laying the groundwork with the NIH, CDC, and others for a global evaluation network to evaluate the health benefits of adoption of clean fuels at scale.

THE OPPORTUNITY IS REAL. THE MARKET IS POISED TO SCALE. THE IMPERATIVE FOR ACTION IS OURS.