The defining aim of global health is to find ways to improve people’s health no matter where they live, by promoting social justice, addressing the social and structural determinants of health, empowering people and providing opportunities to achieve good health and wellbeing — this involves building effective, equitable, sustainable and accountable health systems, including the provision of quality health care. The cornerstone of achieving health equity is addressing issues that prevent opportunities for good health and wellbeing, which inspire our four priority research themes: Food Nutrition & Security, Healthy Environments, Gender Equity & Justice, and Transformative Technologies & Institutions. Johns Hopkins University (JHU) launched the Alliance for a Healthier World with the understanding that health equity is influenced by factors such as education, income, gender, race, ethnicity, geography, nutrition, politics, environment and access to technology. The Alliance is an extension of JHU’s longstanding commitment to addressing inequities. What is new, and exciting, is that the Alliance breaks down barriers between disciplines to bring the best and brightest ideas, people, and work to resolve complex global health challenges. Addressing global health disparities requires a recognition that we live in an interdependent world. We need to better understand the diverse connections between and among the people, communities, institutions, and environments in which we live in order to make a significant impact.

“Saving our planet, lifting people out of poverty, advancing economic growth... these are one and the same fight. We must connect the dots between climate change, water scarcity, energy shortages, global health, food security and women’s empowerment. Solutions to one problem must be solutions for all.”

—Ban Ki-moon, Former Secretary General of the United Nations

Healthy Environments is one of four thematic areas for the Alliance for a Healthier World, underscoring the importance of natural ecosystems on the health of individuals, communities, and nations. The work to secure healthy living environments has never been more important or more urgent, and must address clean air and water, energy transitions, agriculture and diet. It is well documented that adverse environmental changes to air, water, temperatures, and sources of food and shelter can have disastrous impacts which disproportionately affect poor and disadvantaged communities. Despite threats of health inequities persisting and growing, there is hope; collectively, the international community has the tools required to implement changes that will positively impact the health of individuals and communities.

Our team is particularly concerned by the increasing levels of emissions dangerous to human health; these include sulfur and nitrogen oxides, particulates, ground-level ozone, and toxic metals, and the rising production of greenhouse gases in low- and middle-income countries. We’re responding to this challenge by developing Primary Air Care (PAC) which is a comprehensive package of evidence-based policies and interventions to reduce emissions and exert stewardship over the earth’s atmosphere.
Globally, three billion people rely on biomass fuel (wood, agricultural crop waste, coal, and dung) for cooking. The resulting toxic air pollution contributes to more than four million premature deaths; with girls and women disproportionately impacted because of their traditional responsibility for cooking family meals. In addition, the time-consuming process of gathering the biomass fuel puts girls and women at risk for sexual assault, animal attacks, and physical ailments, as well as reducing time needed for school, studies and income-generating activities. Shifting to liquefied petroleum gas (LPG), a mix of propane and butane, can reduce this destructive pollution but is financially out of reach for many. Our Healthy Environments team is working with communities in Peru to develop several prototypes of thermal cookers that will use LPG to bring food to a high temperature, and then harness the insulating properties of the thermal cooker to keep food hot or allow it to cook over a longer period of time. This will greatly reduce the amount of fuel required, lower costs and dramatically improve the health of the community, especially women and girls.

Our Thermal Cooker team includes researchers and students from four schools at JHU: Public Health, Medicine, Engineering, and Business. We are proud to work in partnership with Asociación Benéfica PRISMA.

The Healthy Environment’s team of researchers and scholars will play a critical role in reducing emissions by partnering with countries with significant outdoor air pollution challenges to:

- Assess each country’s needs for data, information, and technical support
- Develop standardized protocols to assess levels of air pollution and conduct emissions inventories
- Identify local and national policy options that can limit emissions or otherwise promote improved air quality
- Evaluate sustainable and readily adoptable alternatives for reducing indoor and outdoor air pollution
- Develop new program models for combining community health and environmental sustainability

ABOUT JOHNS HOPKINS ALLIANCE FOR A HEALTHIER WORLD

The Alliance is an initiative integrating diverse expertise and perspectives to unlock ground-breaking knowledge and resolve the most complex global health equity challenges of our time. Scholars, researchers, and leaders from all disciplines—medicine, nursing, public health, international relations, engineering, education, business, the social sciences, creative arts, and bioethics—work side-by-side with partners and disadvantaged communities around the world to create a healthier, more equitable, and more just world.

ABOUT JHU

Knowledge for the world

The mission of Johns Hopkins University is to educate its students and cultivate their capacity for lifelong learning, to foster independent and original research, and to bring the benefits of discovery to the world.