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***NEW REPORT: One in Three Households Worldwide Exposed to Household Air Pollution;
Growing Evidence Links Their Exposure to 2.6 Million Deaths from Heart, Lung,
and Other Diseases***

(BOSTON July 26, 2018) A total of 2.5 billion people — a third of the global population — were exposed to household air pollution (HAP) in 2016 from the use of solid fuels for cooking and heating, according to a new report, *Household Air Pollution and Noncommunicable Disease*, issued today by the Health Effects Institute¹ (HEI) at www.healtheffects.org.

That enormous population, exposed to high levels of particulate matter from HAP, faces a significant health risk. HEI's synthesis of the latest scientific evidence found a growing number of epidemiological studies and systematic science reviews with evidence that HAP exposures increase the risk of many noncommunicable diseases, including lung and heart disease, cataracts, and lung cancer.

All told, this translates into HAP exposure contributing substantially to the global burden of disease, an estimated 2.6 million deaths in 2016. The economic consequences of the HAP-attributable health burden are also large: the best available estimate from the World Bank suggests an annual global welfare loss in 2013 of about \$1.5 trillion in 2011 U.S. dollars from HAP exposures alone.

Most of those affected live in low- and middle-income countries in Asia and Africa. These populations — and especially the women and children inside the homes — face a *double burden*: from the air they breathe indoors as well as from outdoor air pollution to which household burning of solid fuels also contributes along with a full range of industrial, transport, and other sources. (Detailed estimates of these double burdens in each country in the world are available at www.stateofglobalair.org.)

¹ The Health Effects Institute is an independent, nonprofit research institute funded jointly by the U.S. Environmental Protection Agency, industry, foundations, and development banks to provide credible, high-quality science on air pollution and health for air quality decisions. Support for this study was provided by Bloomberg Philanthropies.

Clean energy solutions are necessary to reduce disease burden substantially. The report found the traditional interventions to reduce exposure — introducing improved solid fuel cookstoves — have had mixed effects, with some reductions in exposure but relatively few health benefits. Cost of the alternatives, cultural attachment to the older stoves, and challenges in operating the new stoves all likely contribute to lower than expected improvements in exposure and health. These findings suggest that more extensive clean energy solutions, such as bringing natural gas and electricity to rural homes, are needed to significantly reduce health burden.

Introducing those new solutions has the potential for substantial public health benefits. HEI's Global Burden of Disease from Major Air Pollution Sources (GBD MAPS) project estimates that, in China and India alone, policies that shift to reliance on clean fuels could decrease the future burden of disease from ambient air pollution attributable to residential burning of solid fuels by at least 30% and possibly by more than 95%, depending on the policy. In India, for example, a policy that would virtually eliminate use of biomass cookstoves by 2050 could avoid 500,000 early deaths from outdoor air pollution annually relative to a business-as-usual scenario; eliminating these stoves would have substantial benefits indoors as well.

This new HEI Report, *Household Air Pollution and Noncommunicable Disease*, which was intensively peer reviewed prior to HEI publication by leading global experts on disease and household air pollution, is available at www.healtheffects.org as *HEI Communication 18*, and in a special *Summary for Policy Makers*. For further information on the report, please contact: Katy Walker, Principal Scientist, HEI (kwalker@healtheffects.org; +1 617 488 2310)