

Cutting EPA indoor air pollution research will cost money and lives

Among the many headlines following the release of the Trump administration's 2019 budget proposal this week was a 23 percent reduction in funding for the Environmental Protection Agency (EPA). Lost in the noise was an even deeper gutting of several individual research and management programs at the EPA, which, if successful, will have great negative impacts on human health and productivity.

The proposed cuts include 33 percent reductions in research on chemical safety and sustainability, 61 percent reductions in research on sustainable communities, and 66 percent reductions in research on air and energy compared to the fiscal year 2018 continuing resolution budget, as well as the complete elimination of the Science to Achieve Results (STAR) research program and the indoor air and radon management programs.

Combined, these programs make up less than 5 percent of the total annual EPA budget. Slashing their funding will cost money and lives by worsening the quality of the indoor environments in which we spend the vast majority of our time.

When most people think of air pollution they think of smokestacks and vehicles emitting pollutants into the atmosphere. Outdoor air pollution is associated with a range of adverse health effects including stroke, heart disease, lung cancer, and chronic and acute respiratory diseases. But [we spend the vast majority of our lives indoors](#) — 70 of our 79 years of average life expectancy — where we are exposed to an astonishing variety of environmental pollutants from both indoor and outdoor sources.

Studies have estimated that exposure to [indoor air pollution](#) in homes [accounts for about 10 percent](#) of the annual non-psychiatric, non-communicable disease burden in the U.S. and that the savings and productivity gains achievable by providing better indoor environments in the U.S. are as high as [\\$200 billion annually](#).

Importantly, much of what we have learned in this country about how our indoor environments affect human health and productivity has come from federally funded research. The research and indoor environmental management programs that the Trump administration proposes to cut from the EPA have been crucial to supporting this work, despite their tragically small impact on the annual budget.

Although most indoor environments do not fall within the regulatory jurisdiction of federal and state agencies like outdoor environments do, research on the indoor environment and human health continues to educate consumers, manufacturers, and policymakers in ways that have had tangible and positive impacts on people's lives.

For example, research on the physiological and cognitive effects of lead exposure led to federal regulations to phase out lead-based paint and disclose its use in properties to potential buyers and renters.

Research on environmental tobacco smoke led to widespread smoking bans in public buildings.

Research on the toxicity of flame retardants such as polychlorinated biphenyls (PCBs) and polybrominated diphenyl ethers (PBDEs) led to their phase out of consumer products and appliances.

Research on radon exposure and lung cancer led to the development of Federal Radon Action Plans, State Indoor Radon Grant programs, and dozens of state-level actions to prevent radon-induced lung cancer.

And research on exposure to — and health effects associated with — chemicals found in consumer products led to California's Proposition 65, which requires the state to publish a list of chemicals known to cause cancer, birth defects, or other reproductive harm and requires businesses to disclose the use of large amounts of chemicals in their supply chains.

Importantly, the EPA through its very small Indoor Air Quality program (comprising only 0.2 percent of the fiscal 2018 EPA budget) is also one of the few organizations to provide educational materials to the public regarding dangerous pollutants and strategies to remove or reduce those pollutants in homes and schools.

There is a clear and consistent trend in which the support of research and management programs on the links between indoor environmental quality and human health yields results that allow consumers to make more informed decisions, encourages manufacturers to make their products safer, and when necessary, advises federal, state, and local governments to enact policies that protect public health through improving the indoor environment.

Research has also shown time and again that the financial benefits of investments to improve our indoor environments greatly outweigh their costs. And researchers continue to discover new ways in which our indoor environments impact health and productivity. We must take action to oppose these cuts and others before they get lost in the noise.

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