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POLLUTION VS HEALTH REFORM

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At his televised presidential briefing on health care reform, last night, President Obama talked about a need to increase access to health care for the millions of uninsured and to boost the buying power of investments in health spending generally. A primary focus, the president argued, should be “incentivizing” (how I hate that word) doctors, hospitals and insurance companies to reign in waste.

On the face of it, that sounds good, albeit plenty vague. It also sounds so limited as to be almost doomed to failure. And the reason: It focuses on finding affordable ways to make sick people better — or at least more comfortable. What it doesn't address is the massive black hole in the room: environmental factors that hobble many of us or trigger pervasive chronic sickness.

It's an issue that an epidemiologist brought up yesterday while we were talking about the newfound and dramatic IQ-diminishing impacts of ubiquitous combustion pollutants known as polycyclic aromatic hydrocarbons, or PAHs.

“What we're finding,” notes Bruce Lanphear of Simon Fraser University in British Columbia, “is that for many of the new morbidities in children (asthma, ADHD, criminal behavior) as well as the most prevalent problems in adults, environmental toxicants — like air pollution, like tobacco, like lead — are major risk factors.”

And they're not small ones.

Lead, a toxic heavy metal, has poisoned millions of Americans. Although lead can kill, the doses to which most of us have been exposed merely exert a silent and largely undetectable disability — a permanent drop in IQ or increase in adult blood pressure. That's why I spoke with Lanphear. This epidemiologist has been chronicling the significant impacts of lead on health and cognition from doses that were considered harmless only a few decades ago.

Then there are the combustion pollutants that we all inhale every day. Some, like the nano-scale particulates emitted by traffic and fossil-fuel power plants, foster atherosclerosis, asthma, other types of respiratory disease and stroke. Many tens of thousands of people die prematurely in the United States each year after breathing combustion emissions of particulates at concentrations permitted under U.S. law. And for every person who dies from this pollution, many more suffer costly, chronic illness. Disease that greatly aggravates the current and growing health-care crisis.

Our most recent review of such impacts also points to emerging data showing

that inhaling tiny pollutant particles can alter the body's genetic programming and accelerate the apparent aging of chromosomes.

Think how the need for costly health care might be reduced if we could greatly limit a broad host of predisposing environmental factors.

Industry and communities tend to balk at the costs associated with ratcheting down pollutant releases and enforcing stricter pollution limits. But that's looking at the costs to a particular company, industry or government. There can be huge contrasting benefits to society in terms of reduced disease, disability and health care spending when more and better pollution-prevention measures are adopted.

How big? As I mention in my PAH story, today, a 5 point drop in IQ experienced nationwide in countries the size of the United States would "increase by 3.5 million the number of children who meet the criteria for mental retardation." Moreover, Lanphear points out, "for every one-point drop in IQ, it's estimated that an individual will lose more than \$13,000 in lifetime income."

But the real economic bonanza, he argues, is from investments in preventing the pollution that sickens or cognitively disables. For instance, estimates now indicate "that for every dollar spent in prevention of lead exposure, we will save anywhere from \$17 to more than \$120," Lanphear says. "That means that preventing lead exposure — both because of its cognitive and behavioral impacts [like heightened risk of criminality] — is actually more cost beneficial than vaccines [to prevent infections]."

And that's just one toxic pollutant. There's also mercury, smog ozone, airborne particulates, pesticides and toxic chemicals thrown into waterways, hormone-mimicking pollutants that leach into foods and water, and more.

The problem, of course, is that pollution-triggered health risks and their attendant costs are diffuse, all-but-impossible to trace (for any given individual) to some one particular cause, and distributed among thousands or more people in any given region. Cleanup and pollution-prevention costs, by contrast, tend to be fairly large, easy to recognize and paid for by a relatively few companies. So those companies appear — incorrectly — to be the only ones having to pony up substantial costs.

Let's reform health care by not just making payments for treatments and procedures more affordable (important as that is), but also by diminishing the overall need for therapeutic care in the first place.