Since the Affordable Care Act was signed into law in 2010, nearly 18 million Americans have gained health insurance and the expanded access to healthcare that affords. In the intervening five years, the two houses of Congress have voted nearly 100 times between them on legislation to repeal, modify, or defund “Obamacare.”

In June, the Supreme Court removed the latest political hurdle before the ACA, upholding the financial model that undergirds the federal health insurance exchange. Expanded access endures.

Yet few signs suggest that our nation’s health status will catch up to that of our peers any time soon. In a 2014 report, the Commonwealth Fund
ranked the U.S. worst among 11 peer nations in access, efficiency, equity, and “healthy lives,” as measured by such indicators as life expectancy at age 60 and infant mortality. In 2013, the National Research Council and the Institute of Medicine (now the National Academy of Medicine) released the report *Shorter Lives, Poorer Health*. Whether in terms of birth outcomes, heart disease, motor vehicle accidents and violence, sexually transmitted diseases, or chronic lung disease, the authors found, Americans at every stage of life fare worse than our counterparts in all other high-income countries. Our standing looks even worse in light of the vast sums Americans spend on healthcare: some $3 trillion a year, a whopping 17.1 percent of gross domestic product—more than any other country in the world.

With a presidential election on the horizon, politicians have a golden opportunity to address the U.S. health deficit with substance and science. Instead of bemoaning the shocking cost of healthcare or counting how many votes the competition has cast to repeal “Obamacare,” a rising tide of public health scholars sees an opportunity for candidates to put good health for all Americans on the national agenda. “We need to build an understanding that we can create the conditions for health—if we work together,” says Mailman School Dean Linda P. Fried, MD, MPH. “When voters hear the word ‘health’ they’ll think, not of doctors and disease, but of walkable neighborhoods, bustling, affordable farmers’ markets, and energy-efficient, healthy homes.”

**FROM RISK TO RESILIENCE**

Decades of peer-reviewed scholarship has established that 30 percent of our health derives from a combination of our genetic predisposition and what goes on in the doctor’s office. The remaining 70 percent of our risk for ill health and premature death owes to exposure: what we eat, whether we smoke or use condoms, whether we keep guns in our homes or are exposed to violence, how often we exercise, whether we drink water contaminated with arsenic or live in homes contaminated with lead. And yet, as a nation, we allocate just 3 percent of the trillions of dollars we spend on healthcare to prevention. “There’s a lot of opportunity to improve health for all of us,” says Fried, “if we correct that misalignment.”

Part of the issue boils down to a framing problem, says Dana March, MPH ’03, PhD ’11, an assistant professor of Epidemiology and member of the Mailman School’s Center for the Study of Social Inequalities and Health. “The typical American thinks of prevention as an individual-level, often clinical phenomenon—it’s getting an annual checkup, visiting your doctor, knowing your numbers,” she says, invoking the famed Framingham Heart Study, in which investigators identified risk factors for cardiac disease and death.
To scholars of public health, with their focus on population trends, prevention calls to mind interventions on a much larger scale. “There are all kinds of things that we do at the population level for prevention,” says March. “It’s about what our nation does by monitoring food safety, compelling vaccines, preserving green space, creating bike lanes, making healthy food available.”

At their best, says March, measures to promote population-level prevention fade from view. Fluoridated drinking water prevents cavities. Worker safety standards prevent premature death and disability. Seat belts minimize injuries on the road. E. coli doesn’t spread in ground beef. Teens don’t get hooked on tobacco, and designated drivers take the keys. Parents of newborns boast of healthy birth weights and full-term gestation. But often we fixate on risk factors—tobacco addiction, alcoholism, maternal diabetes, premature birth. As individuals counting calories or getting off the couch, we have an easier time seeing the effects of personal action than the complementary, population-level policies that promote health.

“We’re really good at identifying things that are bad for us at the individual level, seizing on them, and eliminating them,” says March. Have high blood pressure? Take a pill. Obese? Go on a diet. “What’s tricky about prevention is that you don’t want those things to develop to begin with,” she says. “Instead of risk, public health proponents are thinking about resilience, about the factors that promote health. We have to structure society and communities in ways that promote healthy behaviors, eliminate inequalities, and give everyone an opportunity to live healthy, productive lives.”

**Getting a foothold**

While Beltway insiders have been slow to embrace a population health mentality, the power of prevention is catching on in the C-suite. “I think every Fortune 1000 company in the country has some sort of employee wellness program,” says Michael Sparer, PhD, JD, chair of the Department of Health Policy and Management. “They’re trying to think about how to encourage healthier lifestyles and improved health among their workforce.”

As a founding director of Global Research Analytics for Population Health (GRAPH), a new program that seeks to partner with Fortune 500 executives, heads of health systems and governmental agencies, and philanthropic organizations, Sparer seeks to quantify the effectiveness of prevention programs—both in strict cost-accounting terms and in improved quality of life—and identify health system components that could improve health. “There is general, bipartisan support for much of what classic public health does,” he says. “The trick is to figure out how to translate that public support into a political agenda.”
A few years ago, Anthony Shih, MD, MPH ’01, examined the data on smoking cessation for clues to the associated cost savings. “In the short to medium term,” he says, “there is a lot of costs savings to the healthcare system if people quit, because there are so many diseases associated with smoking.” But track those former smokers long enough, he found, and their healthcare costs start trending upward. “People live longer,” says Shih, “then incur additional costs from conditions associated with older age.”

For Shih, now executive vice president at The New York Academy of Medicine, that curve captured a looming question in American healthcare: Who pays for prevention? “I’m not sure if prevention saves money all the time,” he says, “but I am pretty sure that most of the time, even if it costs money, it’s worth doing because you improve quality of life.”

A growing body of research by economist Tal Gross, PhD, an assistant professor of Health Policy and Management, (pictured right), reveals...
Scientists know a lot about what works to improve health: smoking cessation, immunization, clean air and water, gun control, circumcision to prevent HIV infection, and so on. Good political leaders advance such efforts, says John Santelli, MD, MPH, the Heilbrunn Chair of Population and Family Health. “We need somebody who understands the difference between a political message and a public health program and who is willing to come out in support of public health,” he says. “There’s abundant evidence around the world that having political leadership talking about HIV as a problem is part of the solution to that particular public health crisis.”

Voters will have to listen closely. “Talking about prevention is actually politically very safe because it’s not threatening anyone’s income,” says economist Tal Gross, PhD, an assistant professor of Health Policy and Management who investigates the effect of health insurance on hospital visits, employment status, and even bankruptcy filings. In the run-up to an election, says Gross, candidates keep things vague, leaving voters to fill in the blanks with what they want to hear as they try to imagine how campaign rhetoric might translate into real policies. “It’s important,” he says, “that as a nation we make just how complicated cost-accounting gets when quality of life enters the equation. People who previously stayed with an employer just to maintain their health insurance quit when the bond is broken; they start their own business, become full-time caregivers, retire early. Previously uninsured people actually visit the doctor when they get health insurance; at least initially, their consumption of healthcare services rises. In the wake of a medical emergency, people with adequate health insurance are more likely to maintain financial solvency and stave off bankruptcy. Most recently, Gross demonstrated that when certain states refused to expand Medicaid coverage, the dollar value of healthcare consumption didn’t change—it just shifted from the state’s budget to the bottom line of local hospitals.

“As a nation, we’re always going to have expenses related to maintaining population health and well-being,” says Gross. “We can optimize our investments by choosing the most effective interventions, and that’s a good start. But ultimately, we’re going to have to decide what kind of nation we want to be—what constitutes health and well-being and quality of life—and invest our resources accordingly.”
the distinction between preventive interventions that save lives and offer a return on investment, and those that don’t.”

**THE SCIENTIFIC METHOD**

The passage of the Clean Air Act in the 1970s and the revision of standards that the Environmental Protection Agency undertakes every five years exemplify how underlying health science research motivates standards. “The progress that we’ve achieved in air quality in the U.S. has mainly come from the fact that we understand the health impacts of pollution,” says Patrick Kinney, ScD, a professor of Environmental Health Sciences, “and we know it’s killing people.”

When President Barack Obama unveiled his Clean Power Plan, a sweeping set of regulations to limit pollution from power plants, he managed to thread the needle, marrying political messaging, concrete action, and the kind of emphasis on population health that makes a public health scholar swoon. “Today an African-American child is more than twice as likely to be hospitalized from asthma,” said the president in his August speech announcing the plan. “A Latino child is 40 percent more likely to die from asthma. So if you care about low-income, minority communities, start protecting the air that they breathe.”

A wealth of data backs the president’s point, says Kinney, who directs the Mailman School’s Climate and Health Program (CHP), established in 2009. The first of its kind at a school of public health, CHP produces scientific evidence detailing how climate change affects humans, and investigates tactics to diminish those effects or prevent them. While even an immediate limit on greenhouse gas emissions will yield environmental benefits only over the long haul—50 to 100 years—that same intervention, by reducing air pollution or particles in the ozone, promises a rapid improvement in health. “You can start saving lives immediately,” says Kinney, “by taking actions that are good for the climate in the long run.”

Mark Hatzenbuehler, PhD, an associate professor of Sociomedical Sciences, sees similar opportunities in the laws that govern education, employment, and housing. “Every policy we pass is a health policy,” says Hatzenbuehler, an expert in the consequences of stigma who has demonstrated that gay people who live in communities with higher levels of stigma die younger than their counterparts who reside in communities with lower levels of stigma. Despite the gains made in marriage equality, he says, there’s still much political work to be done to promote health among LGBT people. Only 21 states include protections for sexual orientation in their nondiscrimination
laws, just 19 protect LGBT youth with school anti-bullying laws, and there’s growing concern in several states about reconciling religious rights with protection from acts of sexual-orientation or gender-identity discrimination. “We need our school policies and laws to be protective of groups that we know to be at disproportionate risk for bullying and peer violence,” Hatzenbuehler says, “groups that we know to be targeted in employment, healthcare, and other forms of discrimination.”

Opportunities for policymakers to promote health touch nearly every sector of the government. Consider chemical exposure. Each day, Americans are exposed to hundreds of chemicals, a number of which are known to be hazardous but are not illegal, says Robin Whyatt, PhD, a professor of Environmental Health Sciences. Her research has documented the dangers of prenatal exposure to endocrine disruptors called phthalates—compounds widely used in consumer products. Compared with their peers, children exposed in utero display significant and dramatically reduced IQ and other cognitive aspects of brain function, including verbal comprehension, working memory, speech processing, and information processing. Exposure to some phthalates has also been linked with increases in rates of behavioral problems and asthma.

Of the 80,000 chemicals on the market, few have been tested for toxicity. “We know about the health risks of a number of them, but we really don’t know anything about the vast majority,” says Whyatt, “and we are using children and developing fetuses as guinea pigs.” Currently, U.S. laws require regulatory agencies to prove that a chemical is harmful before they can take action; in the European Union, on the other hand, chemical companies must demonstrate the safety of their compounds as a condition of registration. Avoiding these chemicals, Whyatt says, “is not a job that should be laid on the shoulders of consumers.”

Instead, that level of responsibility for protecting the health of the U.S. population should be a shared duty of political leaders relying on the insights furnished by scientists. In this campaign season, Americans need their presidential candidates to correct misperceptions about health and healthcare, base their policy positions on sound science, and foster a national conversation about what policies will promote the health of all Americans. Says Fried: “We should have leaders who dispel myths and who say, ‘These are big issues for our future, and we have scientists who can help us see what the menu of answers might be.’”

WE SHOULD HAVE LEADERS WHO DISPEL MYTHS AND WHO SAY, ‘THESE ARE BIG ISSUES FOR OUR FUTURE.’

Linda P. FRIED

ANDREA CRAWFORD covers the health of people and the planet. Her work has been published in Slate and Psychology Today. Her first book will be published by Avery.