

urance. Pete Buttigieg, on the other hand, proposes “Medicare for All Who Want It,” meaning an affordable public option that would offer comprehensive coverage and, by means of market competition, force private insurers to lower their prices. And while other candidates also support a public option, their visions for it vary in terms of generosity of coverage and the level of government (state versus federal) that would administer it.

Campaigns focus on laudable aims like covering the uninsured and protecting Americans from medical debt because candidates know that clarifying potential trade-offs can diminish enthusiasm. For instance, despite broad general support for universal coverage, Kaiser Family Foundation (KFF) polling finds that when people are told that it may result in loss of their private insurance, delays in care, or increased taxes, support declines significantly.¹ As Larry Levitt, who directs KFF polling, told me, “Our polling consistently finds that what people want political leaders to do is figure out a way to lower health care costs, and by that they mean their own health care costs.”

But given the many assumptions built into any economic model, the likely costs of a Medicare-for-All-type program remain debatable. Some key uncertainties are how much doctors and hospitals would be paid, the extent to which drug prices would be negotiated, and the amount of resources that would be consumed. That cost estimates vary by as much as a trillion dollars is thus unsurprising and makes it impossible to project the costs to individuals.² Single-payer cov-

erage would probably eliminate cost sharing and surprise medical bills, but the magnitude of requisite tax increases, and who would incur them, isn’t clear. Proponents argue that tax increases would be directed at the rich and be more than offset by increased salaries, but such details will depend on myriad variables, including the composition of Congress.

The complexity doesn’t end with predicting costs. Even an outcome that seems purely beneficial, such as more generous coverage for more people, gets complicated when critical details are considered, such as what exactly will be covered and who will decide. As professor of health policy Ashish Jha emphasizes, “Liberals would love Medicare run by Obama. But we don’t always elect Obama. Sometimes we elect Trump.” Giving the government a bigger role could mean relitigating benefits like basic reproductive health coverage every 4 years. “How deeply ingrained into the political process do we want coverage to be?” Jha asks.

Other trade-offs, such as the possibility that a single-payer system would compromise innovation, are also uncertain. Government programs, health economist Amitabh Chandra points out, are slow to embrace change; for example, Medicare added prescription-drug coverage in 2006, decades after commercial insurers did. Pharmaceutical manufacturers argue that their own ability to innovate could be thwarted if we vest too much health care power in the federal government. Allowing Medicare to set drug prices, for instance, might rescue people who can’t afford their

medications today — but potentially at the expense of those who will die of diseases for which treatments are lacking.

In the face of complex trade-offs, it’s tempting to reach for simple solutions. Jha, who is often asked why the United States can’t have a single-payer system like those in some other high-income countries, explains that “there is almost no health care system that can be transplanted without the host rejecting it.” He paraphrases the late health economist Uwe Reinhardt who, when asked about praise for the Danish health care system, would say something like, “Denmark has a great health care system. But if you want me to adopt the Danish health care system, you must also give me the Danish political system, and it would surely help if you also gave me the Danish people.” Whereas Denmark’s population, roughly the size of Wisconsin’s, is relatively homogeneous, including in its embrace of communal values, America’s large and diverse population is deeply divided on some central issues — for instance, the power of a free market and the appropriate role of government in our lives.

Although few Americans seem disgruntled about their mail being delivered, their trash being picked up, or their children having access to public schools, the idea of a government “takeover” of health care horrifies the small-government camp. Opponents of what’s broadly considered “socialized medicine” object to the creation or expansion of federal programs, even though once they’re receiving government health care benefits, most Americans, like the man who confronted Inglis,

wouldn't tolerate having them rescinded. Such loss aversion is non-discriminating, of course: a central reason for wariness of Medicare for All is the desire of the privately insured to be allowed to stick with what they know.

If complex uncertainties, powerful ideologies, and human idiosyncrasies compromise rational debate, the moral conflict at the core of health care reform makes reasoned analysis harder still: Is health care a right that should be guaranteed by our government? Or is it a privilege, a commodity, or merely a lifestyle choice? Ingllis mentioned someone he knows who told him how to "solve health care: You let people die on the steps of the hospital. That will teach them. They will get insurance then." Trying to explain to someone with this worldview that millions of Americans who work nevertheless either can't afford insurance or end up with bare-bones coverage or crippling medical debt seems futile.

Disregard for facts undermines cost-benefit analyses regarding many social issues, but the moral stakes of the health care debate can make it difficult even to acknowledge the existence of trade-offs. Moral psychology clarifies that when "sacred values" are at stake — and for many people, health care is one of them — the mere suggestion that we should analyze costs and benefits can be offensive.³ So, for instance, as health economist David Cutler explains, whereas the public generally thinks each individual should pay less for health care, they believe the United States as a country should spend more. And insofar as they see overall costs as too high, many Ameri-

cans blame the pharmaceutical and insurance industries, which they see as profiting off their illnesses. Those who see such corporate greed as driving excess costs may refuse to discuss trade-offs between, say, cost and access, because they don't believe that such trade-offs exist.

More broadly, for the many among us who view health care as a right, confronting the pragmatic implications of this belief can be uncomfortable. Emphasizing that every quantity of health care consumed has to be paid for by someone, health economist Katherine Baicker asked rhetorically, "How much health care is a right? And who is drawing that line?"

When it comes to resource allocation, the line has already been drawn, albeit implicitly. But whether we explicitly move that line, recognizing our failure to make health care accessible and affordable to many Americans, or take a more incremental approach, fixing the coverage gaps in the current system, is a choice with its own trade-offs. One gap, for instance, comes from the ACA's "family glitch," whereby prospective enrollees cannot receive subsidized coverage on the insurance exchanges if they have access to an affordable *individual* insurance plan, even if they need to insure their whole family. Another substantial gap leaves out some 2.5 million low-income people in the 14 states that refused to adopt the ACA's Medicaid expansion after the Supreme Court deemed it optional. Bridging either gap would expand coverage while potentially avoiding a costly political battle, but would still fall short of a commitment to universal coverage.

Noting the challenges of introducing cost-benefit analyses into the realm of sacred values, the psychologists Alan Fiske and Philip Tetlock write, "From the standpoint of political expediency or even social peace, honest, integratively complex reasoning that renders the trade-offs transparent is likely to be the least effective strategy."⁴

Such an insight may have persuaded even one of the most ardent single-payer advocates, Elizabeth Warren, to acknowledge the advisability of incrementalism. By late November, after getting blowback on her newly detailed plan, Warren was conceding that the journey to Medicare for All would take at least a couple of years longer, and require more intermediate steps, than she'd previously believed. Of course, any path to universal coverage will depend on negotiations between Democrats and Republicans that could make incrementalism backfire. As Warren is fond of saying, "You don't get what you don't fight for" — a truism illustrated by the outcome of ACA negotiations that, rather than beginning with a single-payer proposal, ventured only a public option, which was then bargained away.

The term "Medicare for All" first appeared in 1970 in legislation proposed by Republican Senator Jacob Javits. "Although we spend more money than any other country in the world on health care," Javits said, "the quality of care remains uneven, and for many [—] particularly the poor — it is abysmally low, if not nonexistent."⁵ Fifty years later, the inadequacies of our health care system are eerily similar, and today's political polarization makes

 An audio interview with Dr. David Cutler is available at [NEJM.org](https://www.nejm.org)

it only more difficult to weigh the complex trade-offs of any reform. Yet if anything unites Americans when it comes to their health care, it's that once they have it, they don't want to let it go.

Disclosure forms provided by the author are available at [NEJM.org](https://www.nejm.org).

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DOI: 10.1056/NEJMp1916615

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The False Promise of Natural Gas

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Production of natural gas has grown by nearly 400% in the United States since 1950, and gas is now the country's second-largest energy source. The main driver of this increase has been the wide-scale adoption of hydraulic fracturing ("fracking"). During the fracking process, large volumes of water, sand, and chemicals are injected deep underground at high pressure to fracture shale deposits and sand and coal beds to release trapped gas. The world's largest gas-transmission network — with more than 300,000 miles of interstate and intrastate transmission pipelines, 2.1 million miles of local distribution lines, and more than 1000 compressor stations — brings this gas to the market. The ready availability of gas has reduced dependence on coal and oil, enables the United States to ship gas overseas, and will make the country a net energy exporter by 2020.¹ It has also made gas an important feedstock for the chemical, pesticide, and plastics-manufacturing industries.

Natural gas, composed princi-

pally of methane, has been hailed as a clean "transition" fuel — a bridge from the coal and oil of the past to the clean energy sources of the future. This claim is partially true. Gas combustion produces only negligible quantities of sulfur dioxide, mercury, and particulates. It is thus less polluting than combustion of coal or oil, and this benefits health.² Gas combustion also generates less carbon dioxide per unit of energy than combustion of coal or oil.

But beneath this rosy narrative lies a more complex story. Gas is associated with health and environmental hazards and reduced social welfare at every stage of its life cycle.² Fracking is linked to contamination of ground and surface water, air pollution, noise and light pollution, radiation releases, ecosystem damage, and earthquakes (see table). Transmission and storage of gas result in fires and explosions. The pipeline network is aging, inadequately maintained, and infrequently inspected. One or more pipeline explosions occur every

year in the United States. In September 2018, a series of pipeline explosions in the Merrimack Valley in Massachusetts caused more than 80 fires and explosions, damaged 131 homes, forced the evacuation of 30,000 people, injured 25 people, including two firefighters, and killed an 18-year-old boy. Gas compressor stations emit toxic and carcinogenic chemicals such as benzene, 1,3-butadiene, and formaldehyde. Wells, pipelines, and compressor stations are disproportionately located in low-income, minority, and marginalized communities, where they may leak gas, generate noise, endanger health, and contribute to environmental injustice while producing no local benefits. Gas combustion generates oxides of nitrogen that increase asthma risk and aggravate chronic obstructive pulmonary disease.

Compounding these hazards are the grave dangers that gas extraction and use pose to the global climate.³ Gas is a much more powerful driver of climate change than is generally recognized. As much as 4% of all gas