each session, the researchers assessed heat strain by measuring participants’
- Rectal temperature
- Heart rate
- Systolic blood pressure
- Whole-body sweat rate
- Whole-body thermal comfort

**Fan-tastic Findings**
In the very hot but dry conditions, fan use worsened all the above measures. But fan use in the hot and humid conditions improved every measure except the whole-body sweat rate, which it worsened.

**It’s Not (Just) the Heat. It’s the Humidity**
While the Centers for Disease Control and Prevention, World Health Organization, and Australian government discourage fan use whenever the temperature climbs higher than 35°C (>95°F), said Anthony Capon, MBBS, PhD, findings from his group’s study suggest fans are actually helpful when high humidity accompanies high temperatures.

“In very hot, dry heat waves, you do have to be careful with fans, because they can impose more heat on people,” he said. That’s because sweat evaporates naturally in dry heat, so a fan doesn’t do much besides circulate hot air.

But in hot, humid weather, common in much of the United States, Southeast Asia, South America, and Europe, the breeze from a fan can help sweat evaporate, increasing comfort.

“It’s a combination of cooling the air and moving the air that protects health,” said Capon, who recently installed ceiling fans throughout his new home. Sure, he said, he’ll use air-conditioning in hot weather but in combination with the fans when it’s humid. That way, he won’t have to set the thermostat as low as people typically do.

The latest findings mirror those published in 2015 in JAMA by one of Capon’s co-authors that also questioned the wisdom of public health guidance warning against the use of fans in hot weather.

**Questions Without Answers**
It’s unclear how the conditions studied might affect populations other than healthy young men. But Capon and his collaborators recently received a grant to look at the impact of heat on other groups including menopausal women and people with mental illness (who sometimes wear too many layers of clothing in hot weather).

**The Upshot**
Running the air-conditioning full blast in hot, humid weather is unnecessary and wasteful, Capon said. “It’s wasteful in terms of energy and the carbon emissions it leads to,” he said. “What we’re doing to intervene to protect our health in heat waves will actually make [heat waves] more frequent and more prolonged.”

In other words, people shouldn’t depend on air-conditioning alone to power through heat waves.

“Essentially, what we’re arguing for is a culture change in the way that we think about heat and health,” Capon said. “Men are wearing woolen suits and ties in many offices. We need to challenge those clothing cultures as well.”

**Note**
Source references are available through embedded hyperlinks in the article text online.

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**The JAMA Forum**

**Changing Minds in Health Policy**

**Dave A. Chokshi, MD, MSc**

Health policy has not been spared in our current climate of political polarization. In a recent poll, 48% of Americans had a favorable view of the Affordable Care Act (ACA)—the most significant health policy reform in a generation—while 41% had an unfavorable view. What does it take to change minds about health policy?

Professionals steeped in evidence-based medicine may gravitate to an evidence-based approach to policy, too. Rigorous studies would point the way to effective policy and programs, such as the nurse-family partnership, a home visitation program for first-time mothers. But what does the evidence say about the power of evidence to change minds? Simply stated: facts matter, but appealing to values is even more persuasive.

Values are like magnets: they exert powerful forces, often through an unseen mechanism. For the human mind, we see this with “myside bias”—the tendency to embrace information supporting one’s beliefs and discard information that contradicts them. The existence of myside bias is well-established across several studies. Yet how beliefs congeal around values or what makes us prone to myside bias in the first place is not as well understood. Understanding this may help us enact the policies that evidence identifies as effective.

**The Evidence on Medicaid**

Take the example of Medicaid. Reams of research demonstrate the effects of Medicaid expansion. A 2018 systematic review found that expansion was associated with increases in coverage, health care service use, and quality of care. A recent review spanning 324 studies underscores those earlier findings and provides evidence of additional positive effects on individuals’ financial security, reductions in uncompensated care costs for hospitals and clinics, and economic benefits for states.

Yet 14 states have not yet expanded Medicaid. In Texas, former Gov Rick Perry famously said that adding uninsured Texans to Medicaid is “not unlike adding a thousand people to the Titanic”—and the majority of Texas Republicans still oppose Medicaid expansion. Concerns about economic effects on states and that Medicaid actually harms its beneficiaries are common reasons for op-
Medicaid work requirements are another area where policy making seemingly diverges from rational appraisal. A 2017 poll found that 70% of the US public supported work requirements, and thus far, 16 states are pursuing the requisite waivers, although some have been blocked in court. Based on the available evidence, analysts predicted that the requirements would result in greater administrative expenses, eligible persons losing coverage for failure to complete paperwork, and loss of benefits that support employment. The first major study of actual effects of work requirements in Arkansas has borne out many of these concerns, demonstrating significant loss of coverage, likely due to administrative hurdles, but no significant increase in employment.

Clearly, evidence isn’t enough when it comes to understanding these dynamics. We are used to evaluating health policy according to effects on access, quality, and costs. Should a different framework hold primacy when we are talking about changing minds about policy? Jonathan Haidt, PhD, of the New York University Stern School of Business, offers a way to think about tying values to 5 “moral foundations”: harm, fairness, loyalty, authority, and sanctity. People who are more liberal or more conservative, he argues, weight these domains differently in their understanding of morality.

In this way, moral foundations theory may help explain seemingly irreconcilable political polarization. It could also help change minds about evidence-based policy. For instance, proponents of Medicaid often invoke harm as a reason to support expansion or reject work requirements. But the sanctity of childhood—and each child’s right to an open future—can also be tied to Medicaid and may help unlock a different channel of dialogue with people who consider the harm and sanctity domains differently.

**What Matters in Health Policy**

The amount of oxygen taken up in political debates about coverage (such as “Medicare for All” proposals) has narrowed the dialogue from health policy to health care policy to health insurance policy. Beyond coverage, the public’s concern about reducing health care costs has increased from 2011 to 2019, such that it now ranks second among overall policy priorities, after strengthening the economy. And beyond health care, a dialogue worthy of the most profound problems in health—such as declining life expectancy in the United States—would take on affordable housing, income inequality, accessible child care, and climate change.

Perhaps paradoxically, expanding the bounds of health policy debate could in some cases open up new avenues to generate consensus, such as investing more in prevention. In addition to thinking about how proposed policies resonate with different moral foundations, as described above, 3 other pathways could help change minds about effective policy.

First is the power of using unexpected messengers. Political scientist Adam Berinsky, PhD, of the Massachusetts Institute of Technology, has demonstrated that unlikely sources can help refute false rumors. For instance, a statement by a Republican debunking the notion of “death panels” associated with the ACA was more effective than a corrective statement by experts from the American Medical Association. Partisanship, to the extent that it is shorthand for alignment of values, could serve to change minds in some situations—not just further entrench established positions.

The second pathway is messaging to “inoculate” people against misinformation. True to the metaphor, this may be particularly effective for public health, such as when commercial interests contribute to false beliefs. One study tested the effect of misinformation about anthropogenic global warming on 2 groups. The control group was presented with the misinformation alone, whereas the experimental group was first warned of industry techniques of using fake experts (such as in tobacco advertising). While those in the control group split along political lines, the group that received the inoculation message was resistant to polarization.

The third pathway is an approach to changing minds at political extremes, through what Steven Sloman, PhD, of Brown University, and Philip Fernbach, PhD, of the University of Colorado’s Leeds School of Business, term “the knowledge illusion.” In a series of experiments with colleagues, they demonstrated that confronting one’s own ignorance about a complicated policy serves to moderate one’s position on that policy. For instance, they asked study participants to rate how strongly they agreed or disagreed with transitioning to a single-payer health care system. Then they were asked for a detailed, mechanistic explanation of the policy and subsequently asked again about their strength of support or opposition. Interestingly, participants moderated their positions after struggling with an explanation, but not when they were instead asked to enumerate reasons for their policy preferences. Humility in realizing the limits of one’s understanding was a more powerful force for changing minds than rationalization.

Each of us can draw on the power of humility, particularly to understand differing values, in our individual conversations. Evidence-based dialogue should be elevated, particularly in the era of “alternative facts,” but sometimes a barrage of facts provokes defensiveness rather than understanding. Political leaders have a particular responsibility to not only discern effective policy but also to persuade those who are unconvinced or opposed, invoking values to transcend well-worn partisan grooves. In this way, changing minds may be as much about the heart as the brain.

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