

- Pain and fatigue were the most common co-occurring symptoms, affecting nearly one-third of the survey participants, or an estimated 11 million US older adults.
- The most common co-occurring trio of symptoms were pain, fatigue, and sleep problems, affecting some 13% of survey participants or about 5 million US older adults.

### What's the Risk?

For the most part, more symptoms led to greater functional decline. That might be expected, but this study quantified the increased risk of poor outcomes after adjusting for age, sex, race/ethnicity, education level, chronic medical conditions, baseline physical performance levels, and several other factors. Compared with participants who had no symptoms, those with 4 or more had:

- A 35% higher risk of developing muscle weakness.

- An 80% increased risk of their walking speed falling below 0.6 m per second, an [indicator](#) of poor health and function.
- An 85% higher risk of developing poor lower extremity function.

### That's Not All

Participants with 4 or more symptoms were about twice as likely as those with no symptoms to fall at least twice a year, become hospitalized, and need help with basic ADLs. Those with 4 or more symptoms also had a 62% increased risk of being admitted to a nursing home and a 56% increased risk of dying.

### Shortcomings

Symptom definitions were based on only 1 or 2 interview questions. Although the questionnaires used were validated, more

detailed versions could have identified symptoms with greater specificity. In addition, symptom reports are subject to recall bias. The data didn't include information on the participants' medications, which can cause symptoms.

### The Upshot

"Often, the full impact that symptoms have on health status and quality of life is underappreciated," lead author Kushang Patel, PhD, MPH, research associate professor of anesthesiology and pain medicine at the University of Washington in Seattle, said in an email. "This study makes the further point that the cumulative effect of multiple symptoms is important and should be taken into account when evaluating a patient's prognosis." ■

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

## The JAMA Forum

# Doing Health Reform Better: Listening to the Public

Andy Slavitt, MBA

To hear politicians talk about it, there are very stark battle lines in the United States over health care. But what the US public has to say and how poorly politicians and policy makers listen drives much of that conclusion. And much of it is wrong.

To achieve the health reforms worthy of the country, it is critical to pay attention to what the public is saying before jumping so conclusively to policy answers.

To [hear Republicans tell it](#), the US public is deeply concerned about the role of government infringing on their choices and are seeking freedom from regulations. There are scant data that say this is a top health care concern. To listen to the early Democratic primary debate, one would think there are stark differences in the public's mind about Medicare for All, single payer, and other forms of universal coverage. Although [data suggest the public is strongly in favor of universal coverage](#), there is little evidence of this.

A better conclusion is that people just want a health care system that works for them and their families—and expect policy makers to fix the parts that don't—and

they're less particular about how that happens. [About 82%](#) of all registered voters said health care was important to their vote in 2018.



Most of people's health care concerns are basic and existential. When someone in their family is sick, they want to be able to afford to take care of them. And they want to be sure that no one—whether an insurance company's fine print, the government, the Congress, or a judge—has the power to change the rules and take their health care away.

It's a far more primal topic than what taxes they pay. Take a top pocketbook issue, multiply it by matters of life and death, and you have health care.

The prime example of politicians not listening and getting it wrong was on display during and just prior to the 2018 US midterm elections. After backing a series of policies over nearly a decade that weakened preexisting condition protections, Republican candidates faced a significant public backlash at election time. Polls showed it and politicians across the country began to publicly (even if not in fact) backpedal from this position. Minority leader Kevin McCarthy (R, California) [blamed the Republican midterm losses squarely on this 1 issue](#)—with good justification. In the summer of 2017, right after the House voted to repeal the Affordable Care Act (ACA), there was a well-documented lack of congressional representatives who voted for repeal who were willing to [conduct town halls and listen to their constituents](#). A listening strike turned out not to work in their favor.

Perusing policy ideas without listening to the public is something Democrats must watch for, too. The Democratic 2020 primary is being set up as something of a referendum between single-payer insurance and other forms of universal coverage. Such distinctions exist, of course. But to

most of the public, the policy details of how universal coverage works are in the weeds compared with their primary concern—certain and affordable care. [Polls show](#) virtually every solution put in front of people that increases health care security and affordability are winners and everything that causes them to lose that or makes them more insecure to be losers.

The health care skies are gray for the US public right now, with [Republicans suing to declare the entire ACA unconstitutional](#). The trap for Democrats is an extended argument over whether they prefer the sky to be royal blue or powder blue.

Politicians not listening well is not a function of too few political polls. Politicians can often point to polls proclaiming that the public favors one certain policy proposal or another. But politicians and the public should be wary of polls taken to demonstrate support for their views. Instead, they should listen to the trade-offs people are willing to make and how they talk to each other around the kitchen table.

So what are people saying? [One experiment](#) shows how more than 200 people recently responded in their own words to a question on social media about what they believed were the health care concerns most common among their friends and families. The aim was not to be scientific but quite the opposite—to try to tap into the kinds of conversations people have when

talking to each other around the kitchen table or in coffee shops.

About 70% of people expressed concerns about affordability and health insurance coverage. Prescription drugs topped the list of cost concerns. Cost sharing and deductibles were also frequently mentioned, and when combined with insurance premiums, insurance costs rank even higher than prescription drugs. One may be tempted to conclude this means that people are most concerned with the cost of all health care, but to the public, it shows up as flaws in insurance.

Specific cost concerns were diverse and followed people's own specific personal experience, reflecting the breath and size of health care. About 13% of people who mentioned cost identified the affordability of dental care. Others mention long-term care, ambulance rides, emergency department bills, or hospital stays.

When listening to people, one should avoid the temptation of simply clustering their responses and instead pay attention to how specific and idiosyncratic people's concerns are. Health care often represents the greatest financial uncertainty and stress people face and they expect solutions to help them. The lesson is an important one for politicians to digest. If a politician says they're tackling the cost of prescription drugs, people won't believe it until the cost of their own insulin is affordable.

Because people's concerns are so fundamental and acute, they [cross over party](#)

[identity more than is often recognized](#). Nine out of 10 Republicans and Democrats believe surprise medical bills should be a top priority of their state legislature. Likewise, 9 out of 10 in both parties say the same for prescription drug costs. Pain and uncertainty trumps party identity.

Obviously much more needs to be learned. Policy makers would be smart to elevate the voice of patients and reduce the influence of lobbyists and other less-representative voices. The path the Republicans in Washington chose these last few years—drafting proposals behind closed doors, avoiding hearings, and limiting town halls—isn't the right one. There are many choices to make to get health reform right. The best, most durable answers are going to come from an engaged public and paying attention to what problems we can solve. ■

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## Bench to Bedside

# Fever Induces a Molecular Homing Response in Immune Cells During Infection

Tracy Hampton, PhD

**F**ever is a conserved response that is important for survival during infection and injury, and even cold-blooded animals raise their core temperature when infected with bacteria by seeking warmer environments despite the risk of predation. The mechanisms that account for the physiological benefits of a metabolically expensive phenomenon such as fever are only partially understood. Now, a recent [study](#) in *Immunity*

suggests that fever promotes T lymphocyte homing to sites of infection by altering their surface proteins.

Febrile temperature can improve the vascular delivery of lymphocytes to tissues by regulating vasodilation and blood flow. However, emerging evidence suggests that fever-range thermal stress (38°C-40°C) may play a more active role in directing lymphocyte migration into secondary lymphoid organs or inflammatory

sites by regulating integrins and selectins, key cell adhesion molecules that mediate lymphocyte trafficking.

In this latest study, in vitro experiments in murine T lymphocytes revealed that fever induced the expression of heat shock protein 90 (HSP90), which then selectively bound and clustered  $\alpha_4$  integrins on the lymphocyte surface to promote blood vessel adhesion via focal adhesion kinase-RhoA signaling. This molecular