

# World view



By Kenneth Bernard

## Biden needs scientists with policy chops

**Research eminence alone is not enough for top science posts.**

It has been a rough few years for science-policy leadership in the United States. During the administration of former president Donald Trump, science was demeaned and undermined.

President Joe Biden promised the opposite. Scientists would ensure, he said, that “everything we do is grounded in science, facts and truth”. His hires made good on his promise to put science first – perhaps to a fault. Senior leaders in government science policy require a trifecta of skills: research expertise, proficiency in the art of inter-agency policy coordination, and a deep knowledge of the legislative budgeting process. These last two are not intuitive for academic scientists, no matter how intelligent, and they are hard to learn in a high-profile leadership position.

This month, the first cabinet-level director of the White House Office of Science and Technology Policy (OSTP) resigned after acknowledging he had mistreated his staff. The vacancy his departure leaves comes on top of others – one at the head of the National Institutes of Health, another at the Food and Drug Administration. In my view, Biden should consider appointing only those with demonstrated policy chops and a history of working well with others.

Mid-career, I learnt the hard way how essential policy expertise is to these roles. As the health attaché at the US mission representing the United States to the World Health Organization (WHO) in Geneva, Switzerland, in 1994, I jumped in at the deep end of international health – a quagmire of biomedicine, politics, policy and budgets. At the WHO, consensus ruled; I learnt that negotiation was a bellicose artform cloaked in diplomatic courtesies.

During the administration of president Bill Clinton, I became the US National Security Council’s first health-policy adviser. I had my name on my office door and expected policymakers to seek me out. They didn’t. My first visitor was a marine with a sprained ankle. After that, I removed the details of my degrees from my door and business cards, and found that people took me more seriously. Being a competent policymaker carried more influence than being known as an accomplished scientist.

In the wake of the terrorist attacks of 11 September 2001, I was senior biodefence adviser to president George W. Bush. At policy meetings, ‘principals’ sat around the table; technical experts like me sat in the back row. In one such meeting, vice-president Dick Cheney proposed a national mass vaccination campaign to stymie potential terrorist attacks with smallpox virus. Unlike very safe modern vaccines, the older smallpox vaccine causes frequent and sometimes serious adverse reactions. Bush asked the scientists how many people

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**Kenneth Bernard** is a retired US Public Health Service rear admiral and former assistant surgeon-general who worked on biosecurity during the administrations of president Bill Clinton and president George W. Bush. e-mail: ken@bernardbiosecurity.com  
Twitter: @RADMKenBernard

would die. At least 300, we said. The president rejected the proposal on the spot. We’d done our job and he had done his; he had made a policy decision by weighing up the science-based risks versus the uncertain benefits.

Policy expertise is a skill acquired over time. Biden’s chief of staff, Ron Klain, was the Ebola tsar during the administration of president Barack Obama. Although not an expert on disease, he surrounded himself with those who were and listened to them. His success came from how adeptly he could integrate research evidence with the demands of complicated public-health policy and legislative budgeting. (Policy without a budget is merely window dressing.)

Senior scientists need hands-on government-policy experience before they are placed in demanding leadership roles. Jane Lubchenco, the current deputy director for climate and the environment at the OSTP, has held several mid-level policy posts alongside her positions in academia. I’d like to see many more early- and mid-career scientists doing stints in policy jobs. (The science and technology policy fellowships offered by the American Association for the Advancement of Science and similar programmes perform a real national service.)

A policy decision is a complex political calculus of risks and benefits, and scientific evidence is just one input. The COVID-19 pandemic has forced the intersection of science and policy into a harsh spotlight for which it was ill-prepared. Scientists do science well, policymakers do policy well; few are fluent in both.

To be clear, senior scientists who make policy are not usually the same people who have scientific-advisory roles. Blurring the roles can undermine scientific credibility. That conflation underlies many problems of the US response to COVID-19, with scientists pulled out of their academic comfort zones and dropped into big policy jobs.

An example of a scientist who successfully informs policymakers is Anthony Fauci. Over the past forty years, he has advised every US president since Ronald Reagan. A big reason for his success is his deep scientific knowledge; a bigger reason is that he respects the distinction between scientific evidence and policymaking. The disgraceful personal attacks on Fauci in recent months were not the result of his superb explanations of the SARS-CoV-2 pandemic; they came after he was pressed to defend policy decisions that were beyond the scope of his advisory role.

Elite scientists can be profoundly naive about the value of expertise outside their field. In politics and policymaking, they are often outgunned. Science leaders involved in policy must remember first and foremost that considerations outside science always come into play, and policymakers should be the ones who take responsibility for making policy decisions. Explaining things is not the same as setting out the best course of action.