people of color), as did the likelihood of forgoing care. The ACA, therefore, had positive effects on an important underlying contributor to health disparities — lack of access to care.

In 2020, two events increased public awareness of structural barriers to good health, particularly for racial and ethnic minorities, and could engender new interventions and policies. One of these events, the murder of George Floyd, an unarmed Black man, by police, sparked a massive cultural confrontation of structural racism and the systemic factors that cause Black people and other people of color to be sicker and die earlier than White people in the United States. The other event, the Covid-19 pandemic, sickened, hospitalized, and killed people of color at higher rates than White people because of many factors, including an increased risk of exposure, unequal access to testing and high-quality care, higher rates of medical conditions associated with poor outcomes, and less access to vaccination. These events could increase political will to address the structural racism that drives inequitable health outcomes — thereby creating an unprecedented opportunity for researchers, advocates, and policymakers.

Amid increased understanding of the effects of structural racism on health, research by one of us and by Dorothy Roberts,[4,5] among other scholars, has led to a view of race and ethnic group as social constructs, not medical risk factors. This research suggests that addressing the effects of racism, ethnocentrism, homophobia, unequal treatment based on immigration status, and sexism on health will be beneficial for overall health status and outcomes. Going forward, improving the effectiveness of interventions aimed at mitigating individual and institutional bias, whether implicit or explicit, will be essential to advancing health equity.

Future progress will rely on putting all the pieces together. The past five decades have seen great strides in terms of understanding the nature and scope of health disparities, their socioeconomic and health care–related drivers, and the importance of dismantling structural racism as a path to achieving health equity. Researchers and policymakers increasingly understand that health solutions must target manifestations of structural racism — such as barriers to economic mobility, access to high-quality education and health care, and access to high-paying jobs — and the policies that allow racial inequities to persist. Health systems researchers should continue moving away from focusing on health disparities and toward looking at root causes: systems of structural racism. Only by addressing underlying structures will we get closer to a day when a person's health prospects are no longer predicted by the social construct of race.

The series editors are Victor J. Dzau, M.D., Harvey V. Fineberg, M.D., Ph.D., Kenneth I. Shine, M.D., Samuel O. Thier, M.D., Debra Malina, Ph.D., and Stephen Morrissey, Ph.D.

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Designing an Independent Public Health Agency

Jacqueline Salwa, B.A., and Christopher Robertson, J.D., Ph.D.

It's easy to blame Donald Trump for the entirety of the U.S. government's chaotic and ineffective response to the Covid-19 pandemic in 2020 and early 2021. He is indeed responsible for downplaying the risk posed by the virus, delaying the federal government's response, and making recklessly false claims about Covid-19 therapies. The most striking attacks were against institutions. Before the pandemic, the Trump administration eliminated an important biosecurity-related role on

the National Security Council and ousted the leader of the Biomedical Advanced Research and Development Authority. Trump then trotted out the commissioner of the Food and Drug Administration (FDA) on the eve of the 2020 Republican National Convention and later publicly threatened to fire him if the agency didn't do the president's bidding. At the Centers for Disease Control and Prevention, Trump's appointees manipulated communications and meddled with the agency's flagship publication, the *Morbidity and Mortality Weekly Report*.

During his term, Trump also attacked other institutions; for example, he pressured the Federal Reserve Board (the Fed) to cut interest rates and thereby boost the economy so that incumbent Republicans could garner more votes in the 2018 midterm elections. But one contrast is striking: the Fed was able to withstand the pressure and reliably exert federal power because of its institutional features as an independent agency. With their economic expertise, job protections, long terms, and budgetary independence, the Fed's governors can focus on market fundamentals rather than being vulnerable to the changing winds of politics. This contrast suggests that any fault for coronavirus-related chaos in the United States also lies with the design of the country's core public health institutions, which lack the legal foundations necessary to withstand hurricane-force political winds.

We believe that Congress should act on a bipartisan basis to fix U.S. public health institutions. Legislators could decide to merely buttress current institutions, as former commissioners have suggested be done for the FDA.[1] Alternatively, legislators could consider a broad reorganization of public health functions and create a superagency, whose purview would include everything from the approval of drugs and devices to the maintenance of national stockpiles of protective equipment.

A minimalist approach could focus on the epistemic aspect of the current crisis — that is, Americans' inability to sort truth from falsehood. An effective government wouldn't leave people confused about the extent of the pandemic's spread, the risks and benefits associated with various therapies and prophylactics, or the appropriate precautions to take. In early December 2020, while the politically battered FDA completed its review of two Covid-19 vaccines, the United Kingdom issued an emergency use authorization. Then-Secretary of Health and Human Services Alex Azar said that "the approval of another independent regulatory body should give Americans additional confidence in the quality of such a vaccine."[2] But Americans need confidence in their own government's health decisions.

In addition to reviewing vaccines and other products, an independent, bipartisan agency staffed by experts could systematically collect and disseminate public health surveillance data — rather than leaving it to media outlets to cobble data together — and provide unbiased guidance to federal, state, and local officials on everything from the safety of reopening schools to prioritizing who receives scarce health supplies. Outside a pandemic, there are analogous needs for synthesizing scientific information and expert opinion without political or industrial influence in domains such as nutrition and supplements, off-label use of medical products, and complementary health care. The public needs a reliable voice in these discussions.

Regardless of an independent public health agency's scope, when it comes to designing its structure, we have models in the dozens of independent agencies that exist in various fields (see table). These agencies share important features, including protection of executives, multimember leadership, established qualifications and confirmation processes for executives, political balance, and budgetary stability.

First, it's essential that agency leaders cannot simply be fired by politicians. In the 1935 case *Humphrey's Executor v. United States*, the Supreme Court upheld the guarantee that Congress gave to members of the Federal Trade Commission that they couldn't be removed for political reasons, but only for "inefficiency, neglect of duty, or malfeasance in office."[3]

Second, to achieve the clarity of voice that the public needs, it may seem natural to empower the surgeon general or another independent leader to direct the country's public health. In the Supreme Court's 2020 decision in *Seila Law LLC v. Consumer Financial Protection Bureau*, however, it held that having a single director for an independent agency "has no foothold in history or tradition" and undermines the unitary power of the president.[4] Independent agencies typically have five commissioners, but the chairperson can serve as the agency's organizing, public voice.

To ensure that agency leadership positions aren't stocked with

Examples of Independent Federal Agencies.

Agency and Year Established	Mandate and Role	Membership Criteria
Federal Reserve Board, 1913	Leads the Federal Reserve System (the Fed) to set interest rates and regulates banks; authorizes financial assistance to individual institutions to stabilize financial markets	Seven members appointed by the president and confirmed by the Senate 14-yr terms beginning in even-numbered years Removal only for cause
Federal Trade Commission (FTC), 1914	Investigates fraud, identity theft, false advertising, and anticompetitive business practices; set standards for environmental marketing in 2013; has been active in the review of hospital mergers	Five commissioners appointed by the president and confirmed by the Senate 7-yr terms No more than three commissioners can be members of the same political party None can have a financial interest in FTC-related business Removal only for inefficiency, neglect of duty, or malfeasance
National Labor Relations Board (NLRB), 1935	Enforces labor law in relation to collective bargaining and unfair labor practices; supervises elections for union representation and can investigate and remedy unfair labor practices	Five board members appointed by the president and confirmed by the Senate 5-yr terms Removal only for neglect of duty or malfeasance in office
Securities and Exchange Commission (SEC), 1934	Enforces federal securities law; proposes securities rules; compiles public filings; regulates the securities industry	Five commissioners appointed by the president and confirmed by the Senate Staggered 5-yr terms No more than three commissioners can be members of the same political party
Surface Transportation Board (STB), 1996	Regulates primarily freight rail and other modes of surface transportation; reviews mergers and rates	Five full-time members appointed by the president and confirmed by the Senate 5-yr terms; limited to two terms At least three members shall have professional standing and demonstrated knowledge. At least two members shall have professional or business experience.

incompetent politicos, the governing statute could also specify that leaders be a "body of experts" who are "informed by experience," as the Court wrote in *Humphrey's Executor*.[3] Supreme Court precedent also suggests that if the agency will perform executive functions, its leaders must be confirmed by the Senate, in keeping with procedures laid out in Article 2 of the Constitution.

Trust in experts has itself become a subject of partisan dispute, which reflects both a general populist cynicism about know-it-all elites in some quarters and, more generally, the phenomenon of motivated reasoning, whereby people interpret expert opinions in the context of their own political preferences. The agency therefore needs to be able to speak to all Americans with credibility. Several legal approaches could promote bipartisanship. The Federal Election Commission requires that no more than half the agency's commissioners belong to a single major political party, for example. But such an approach would be stymied if public health officials didn't identify with either of the two predominant parties or were disproportionately aligned with one party. An alternative approach could involve having terms that are sufficiently long and staggered to facilitate nominations from various presidents, although this strategy could lead to lopsided representation when there is a string of presidents from the same party or when agency leaders resign before their terms expire.

Finally, if either Congress or the president can eviscerate an agency's budget, the agency may succumb to budget-related threats. Here, too, existing agencies provide a precedent and model. For example, the Patient-Centered Outcomes Research Institute has a trust fund to carry out its work, which is supported by fees that are assessed on private and self-insured health plans. One option for funding an independent public health agency with a broad scope could be to use proceeds from taxes on marijuana products, should marijuana be legalized at the federal level.[5]

We believe that, all together, these features will help to ensure that a public health agency has the independence necessary to exert its expertise during the next crisis. Even independent agencies can be undermined by politics, however. For example, the Federal Election Commission was recently hamstrung for months, unable to conduct investigations or impose penalties for lack of a quorum. If a president (or a Senate majority) is hostile to an agency, it can undercut the agency by denying it the confirmed nominees necessary for a quorum.

Moreover, "independent" can be merely a euphemism used to denote agencies that lack political accountability and responsiveness to public interests. The Fed has been criticized for setting policies that serve capitalists more than working-class people. Many policy issues can't be resolved with expert judgment alone. Some public health questions depend on weighing liberty interests against probable health outcomes and are therefore as much about considering community values and priorities as they are about settling scientific questions. For this reason, it may make sense to keep the ambit of the agency narrow and focused on epistemic matters, such as on reporting public health statistics and summarizing scientific knowledge to provide guidance to policymakers.

The pandemic has revealed the importance of having trustworthy and competent institutions to protect public health. The Constitution also permits the creation of long-standing, stable institutions that serve the public interest outside the political branches. Just as the United States has independent commissions in other important domains such as monetary policy, we believe it deserves independent public health institutions.

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Losing Touch

Ken Wu, M.B., B.S.

We called it the "cold light." It looked like a small blue button with a power cord attached to the end of it. At its center was a single round eye that emitted a light, crimson in color and piercing in power. In the neonatal intensive care unit (NICU), we used the cold light to find our patients' veins, but in the baby in front of us, we found nothing.

My attending physician switched off the cold light. I looked at my patient, pondering this tiny embodiment of life writhing inside an incubator. She had been born at 24 weeks of gestation, weighing just over one pound. She was so small that I could see all of her in a single gaze. Her body was smaller than my hand, her hand smaller than my finger. I had looked after her for 3 weeks, but I'd never seen her face — it was always obscured by equipment that was helping her breathe. Yet her vigor far exceeded her size; she had already survived two different infections and now needed a blood transfusion. To give her the transfusion, we needed access to her veins.

We switched the light on again and placed it under one of her arms for another look. The anemic limb transformed into a translucent pearl surrounded by a red halo. Inside the pearl were black lines, some of which were veins. We moved the light up and down the limb, tracking each black line to see if it might be a vein long and straight enough to accommodate an intravenous cannula.

For a moment, I looked at my