An evidence-based framework for addressing the root causes of illness in the U.S.



Introduction

In May, the White House and Health and Human Services Secretary Robert F. Kennedy Jr. released the so-called "MAHA Report," which describes his opinions on the causes of declining health among Americans, and particularly children. Attributed to a "MAHA Commission" whose members overwhelmingly lacked relevant experience or qualifications, unsurprisingly, this report was based on false, flawed and fundamentally incorrect interpretations of science, medicine, disease outcomes and public health, making it untenable as a basis for meaningful reform.

Indeed, the MAHA Report begins with a false premise in its very name: the mythical notion that America, and especially its children, were all once "healthy" and we should return to this previous condition. But statistics on childhood mortality show that, despite real problems, our children are vastly more likely to live to adulthood today than they were 75 years or more ago. While it is not our purpose here to critique that original report, we note that the MAHA report section on vaccines is particularly duplicitous and egregious.

Among other issues with the MAHA Report, it barely if at all considers the foundation of the challenges to a healthier America: the social determinants of health (SDH). SDH can be <u>defined</u> as "the conditions in the environments where people are born, live, learn, work, play, worship and age that affect a wide range of health functioning, quality-of-life outcomes, and risks". These <u>conditions include</u> educational access and attainment, access to healthcare, neighborhoods and the built environment, and economic stability. Improving the health of Americans cannot be addressed without SDH as a foundation, and because of its overarching impact, we have included it in each of the pillars of this plan listed below.

Secretary Kennedy now offers his supposed solutions to the problems outlined in May. But solutions based on distorted opinions and ignored facts cannot advance sound health policy, and in fact can do little but impede progress. Rather than simply criticize Mr. Kennedy's work, Defend Public Health believes it is important to outline some key policies that would truly improve Americans' health. We do this with no expectation that Mr. Kennedy or the administration will adopt our recommendations. We do this so fellow Americans can choose to support science-based efforts that will result in a healthier America. What follows is far from exhaustive. But if, as a nation, we truly want to protect and promote the health of both children and adults, we must begin with truth rather than pseudo-scientific posturing. We believe the points outlined below would make a good starting point:



Ensure Food Safety, Security and Access

HHS Secretary Robert F. Kennedy Jr. pretends to support a healthy diet, but his and the administration's actions consistently sabotage Americans' ability to eat healthy and safe food. Numerous government agencies are instrumental in ensuring the safety and reliability of the domestic and imported food supply chains, and for this reason the country has had the luxury of a consistent and safe food supply for decades. However, the future of U.S. food safety and security is in danger due to new policies implemented by the Trump administration. In order to work together to improve the health of Americans, food security and safety must be assured for all.

The Food and Drug Administration (FDA) recently announced that it plans to cut its food safety inspections and instead rely upon states to do this work. The benefits to such a fragmented surveillance system are unclear but the risks are many, given that food production and distribution require coordination between national and international industries. Some states would be better positioned to conduct food inspections and communicate risks than others, and information sharing would be more difficult in the absence of a centralized system. Even before the recent job eliminations ordered by the Trump administration, the FDA was already falling short on food inspections. There is no reason to expect that shifting the burden of these activities to the states will improve the system. We must fully fund and refocus food safety and security programs at the federal level to support optimal health for all Americans.

While cases of avian influenza are declining in the U.S., the outbreak provides an illustration of the challenges related to lacking a sound national policy for combating infectious diseases that endanger the food supply. When avian influenza struck, it had a substantial impact on the supply and price of eggs, created an increased danger to consuming raw milk products, and required extra attention to meat cooking times and temperatures. As avian influenza heightened the need for monitoring the safety of the food supply, funding and personnel cuts to agencies like the FDA, United States Department of Agriculture (USDA), and Centers for Disease Control and Prevention (CDC) that test food products and communicate risks to the public put the vaunted track record of U.S. food safety at risk. After Trump assumed office, a CDC report about bird flu transmission was postponed before the public could be alerted. A quality control program aimed at maintaining the safety of the country's dairy products was recently cancelled. Finally, a major contract to develop a vaccine against bird flu was scrapped, a decision demonstrating a poor understanding of both ongoing and future risks of infectious disease outbreaks among livestock. The U.S. urgently needs to continue funding research to develop strategies to mitigate the risks to the food supply posed by epidemics.

In addition to food safety concerns, the stability of the U.S. food supply is also in danger from mass deportations of immigrants and erratic tariffs. Estimates show that approximately 40% of agricultural workers are undocumented, and the current political environment in the U.S. is not conducive to attracting and maintaining this workforce. Despite claims that these jobs would theoretically be taken by Americans, the harsh conditions and low pay have largely left these jobs unfilled. Crops are already going unharvested due to the threats to the undocumented agricultural workers who make up much of his sector's workforce. Perishable food shipments are especially vulnerable to supply chain delays, and mass deportations will almost certainly lead to shortages and waste of fresh produce that must be picked and



shipped quickly. The U.S. has been able to fill gaps in fruit and vegetable supplies by importing these products, to the point that our reliance on foreign-grown foods has <u>ballooned to almost 60% of our fruit and 38% of our vegetable supply</u>. The administration's wildly fluctuating tariff policies jeopardize access to these healthy foods. The U.S. must implement strategies for maintaining our agricultural workforce, both for humanitarian purposes and for maintaining the food supply. Leaders must acknowledge the contributions of migrant workers and take steps to protect their health, safety and security. Mass deportations should be halted for numerous reasons, including the impact on agricultural outputs.

Food insecurity is increasing in the US, and an estimated 50 million people were assisted by a food bank or pantry in 2023. The destruction of USAID has left some farmers who supplied crops for global food programs in danger of losing everything. An innovative \$1 billion USDA program that incentivized schools and food banks to purchase foods from local farmers was cut, harming all involved stakeholders, particularly in low-resource settings. Food banks are also in jeopardy from growing economic challenges that simultaneously increase the number of people relying on these programs and decrease the amount of donations and funding that keep them running. A variety of other food assistance programs have been disrupted, severely cut, or remain under threat. The Supplemental Nutrition Assistance Program (SNAP), formerly known as "food stamps," will be hit with the largest cut in its history, thanks to the so-called "Big Beautiful Bill." As the Food Bank of Contra Costa and Solano in California explains, "As many as 9 billion meals will be taken off the table for families, seniors, veterans, people with disabilities and children. To put this in perspective, food banks across America distributed about 6 billion meals last year. *These cuts to SNAP will more than double the need food banks are already facing.*"

Even without cuts to SNAP, many people seeking to enroll in the program face administrative burdens such as in-person interview requirements, which are particularly onerous for those without a reliable means of transportation, a **critical social determinant of health**. In addition, 19 million Americans live in "food deserts," where access to healthy foods is limited even for those who can afford it; this is **yet another social determinant of health**. Like many social determinants of health, these are closely related to poverty, a subject that has not appeared on the administration's agenda. Any restrictions on processed foods must account for such food not only typically being more affordable, but also more accessible to a broad swath of the American public, and **policy must focus on improving access to affordable, healthy options in these communities.**

Improving the health of Americans together requires the promotion of healthy diets by expanding, not defunding, programs that increase access to healthy food, including SNAP, food banks, and produce rescue programs. The national school lunch program should be strengthened and protected, and nutrition education should be accessible at every level of education. Ideas for reducing food deserts, which, ironically, are often in rural areas, through changes in agriculture policy should be pursued aggressively. Efforts to address food deserts must receive priority and working people must be given the time required to plan, shop and make healthy meals in their homes. FDA food safety inspections must be restored and strengthened rather than cut.



Improve Opportunities for Physical Activity

Few issues in health have more universal agreement than the benefits of physical exercise. For far too many Americans, a complex web of economic and social factors representing the social determinants of health operates at both the individual and community level to make exercise difficult or impossible. At the individual level, a person must first have the time to participate. The need to work long hours or multiple jobs in order to be able to afford food, shelter, and other basic needs creates a serious barrier to physical activity. A person must also often have disposable income to be able to join a gym, or to purchase appropriate clothing or equipment to pursue an activity. It is not acceptable to simply suggest that such individuals just go out and start exercising if these fundamental needs are not met. The U.S. should make major changes to ensure a livable wage for people so that they can both have the time and the funds necessary for exercise. As it stands now, leisure-time physical activity is a luxury primarily for those who can afford it.

Lack of suitable infrastructure for such pursuits forms another major deterrent to physical activity, which is another aspect of the social determinants of health. Many areas of the United States have little or no access to safe parks, sidewalks, or bike paths that encourage outdoor play or exercise. The built environment must provide a welcoming and safe platform for community health. Considerations include street patterns, pedestrian and bike infrastructure, and connected sidewalks. Neglected public parks that attract crime, lack enticing play equipment, and have trash littered throughout create significant deterrents to community physical activity.

The availability of public transportation also plays a role in exercise attainment, as it has been shown to be associated with higher physical activity levels and lower rates of obesity, yet many regions have little or no reliable public transport. While attacking these challenges may seem daunting, numerous research and policy concepts allow for changes to be made. Communities can begin to build strategies by including stakeholders from public health agencies, businesses, local governments, public transportation, schools, environmental health agencies and community members in conversations about new developments or redesign of existing communities. Finally, as difficult as it is for individuals without disabilities to participate in physical activity, the barriers are significantly greater for those living with disabilities. Careful consideration of the impact of the built environment and the social determinants of health on physical activity must be a starting point for any serious effort to improve the health of Americans. The creation of safe, low- or no-cost public spaces with universal design that allows for accessibility for all community members is essential.

As with food security, many of the barriers noted above are closely linked to poverty, which in turn is profoundly impacted by factors such as race, ethnicity and gender. Much of the research designed to better understand and illuminate these influences has been abruptly defunded by the administration in its misguided and dishonest crusade against anything it considers "DEI." Such research must not only be restored, but it should also be promoted and expanded, and the social determinants of health must get the research and policy attention they deserve.



Ensure equitable access to vaccines

According to Gavi, the vaccine alliance, vaccination has saved 154 million lives globally in the past 50 years. In the past 30 years in the United States alone, a robust vaccination program has prevented 1.1 million deaths, 508 million illnesses, and 32 million hospitalizations, resulting in \$2.7 trillion in societal savings. The federal Vaccines for Children program is an essential preventative public health strategy that provides vaccine access to children who are under- or uninsured, thus mitigating two social determinants of health: access to healthcare and socioeconomic status. In addition, the Affordable Care Act requires health insurance providers to cover vaccines that are recommended by the Advisory Committee on Immunization Practices (ACIP). Unfortunately, all of these gains have been put at risk by HHS Secretary Kennedy, and this destructive agenda must be reversed immediately.

Kennedy summarily fired all 17 members of ACIP and replaced them with 7 unvetted and largely unqualified members, several of whom do not have the knowledge, experience, or training to serve on this committee, including some who have established themselves are part of the anti-vaccine movement. All of the 17 dismissed members of ACIP should be reinstated, and at least 6 of the 7 members of the committee appointed by Kennedy should be permanently removed. Vaccinations for all residents of the United States should be expanded and fully funded by the federal government. Qualified members must be restored to all relevant decision-making bodies for vaccine recommendations in order to maintain programs that provide equitable access to vaccines for all residents of the United States.

We often consider vaccines only as prevention against infectious disease, but they also prevent chronic disease. The most obvious examples are vaccines for Hepatitis B virus (HBV) and Human Papillomavirus (HPV). HBV can cause hepatic cancer, while HPV is a necessary but not sufficient cause of cervical, head and neck, penile, and anal cancers. Influenza vaccine has been shown to be associated with a significant reduction in the risk of heart attack or stroke, as well as a reduced risk for Alzheimer's disease. Vaccination against SARS-CoV-2 not only reduces the risk for severe COVID19 disease, hospitalization, and death, but also the development of Post-Acute Sequelae of SARS-CoV-2, colloquially known as LongCovid. In short, the benefits of a robust national vaccine program on both infectious and chronic diseases have been amply established.

Requirements for childhood vaccines for school entry play a major role in maintaining sufficient vaccine coverage. Each state dictates both which vaccines are needed and what the exemption process entails. Some states, such as California, have passed laws that disallow any vaccine exemptions except for individuals for whom there is a medical contraindication. At the opposite end of the spectrum, states such as Idaho have a form with a simple checkbox that allows a parent to exempt their child from all vaccinations for any reason at all. Research has shown that the easier a vaccine exemption is to obtain, the lower the vaccine coverage is in that state. It is therefore not surprising that Idaho had the lowest vaccination coverage of any state for incoming kindergarteners in the 2022-2023 school year, at 79.5%. Unvaccinated children are 22 times more likely to become infected with measles and 5.9 times more likely to develop whooping cough than their vaccinated counterparts. We must ensure that states strengthen requirements for childhood vaccines for school entry, and eliminate all but medical exemptions.



Vaccine refusal does not only impact the individual who is unvaccinated. Herd immunity helps protect entire communities from infectious disease, especially infants too young to be vaccinated, those with compromised immune systems, the elderly, and those for whom vaccine response is not optimal. For most vaccine-preventable diseases, the percentage of community members who need to be vaccinated falls between 80% and 95%. Loss of herd immunity is often first glimpsed with measles, due to its extreme contagiousness, and the U.S. has just surpassed the most measles cases since the disease was declared to be eliminated in 2000. Consequences of herd immunity loss include rapid increases in cases, disease severity, hospitalizations, and death. Strain on healthcare and public health resources quickly follow, and those who are vulnerable are at significantly greater risk of poor outcomes. A substantial increase in the number of infections also increases the likelihood of a pathogen mutating to evade current vaccines. Officials need to monitor vaccine coverage and intervene to diminish the risks of loss of herd immunity.

Funding for local public health agencies should be fully restored in order to facilitate equitable access to vaccines. States should continue to require childhood vaccines for school entry, and should eliminate vaccine exemptions for any category other than a documented medical condition.



Expand Access to Healthcare

Access to healthcare is a complex endeavor and includes access to primary care, health insurance coverage, health literacy, trust in healthcare workers, language barriers, and financial and logistical concerns such as time off from work, available transportation to healthcare facilities, and the ability to pay for treatment. Inequities related to the social determinants of health in the U.S. healthcare system are well-documented, and a meaningful health agenda must make reducing these challenges a priority.

In 2023, 28% of Americans had to delay or forego medical or dental care due to cost, and many rationed their prescription drugs, putting them at risk of worsening underlying conditions. Within the realm of mental health care, barriers appear to be even more pronounced: Despite one in five Americans experiencing mental illness in a given year, population. Though the enactment of Medicare, Medicaid, and the Affordable Care Act greatly expanded health coverage – and, in turn, access to care – for large swaths of the American public, approximately 9% of the United States is without any health insurance, with another 23% being underinsured. The United States stands out among Organisation for Economic Co-operation and Development (OECD) countries in lacking a system of universal health coverage. For too many Americans, losing employment can mean losing health insurance and struggling to qualify for Medicaid or to afford a marketplace plan, even with subsidies – subsidies which themselves are now slated to be reduced. The United States is an outlier among OECD countries in failing to provide healthcare for its people. This is unacceptable.

When people are able to get insured, health outcomes improve. Research has demonstrated, for example, that the introduction of Medicaid expansion was associated with not only improved self-reported health, but also better access to high-value medical services, taking prescription medications as directed as opposed to rationing, better disease management, and lower mortality rates across a range of conditions including cancer and end-stage renal disease. Provision of health insurance addresses numerous social determinants of health, improves outcomes across all domains, and mitigates the impact of chronic disease on both the individual and the community.

The current system's barriers to more comprehensive health coverage contribute to chronic illness. Both adults and children lacking health insurance are significantly less likely to have access to disease prevention and treatment strategies, or to monitoring of chronic conditions. It is indisputable that lack of health insurance results in a greater burden of chronic health problems for both an individual and a community, ultimately driving up healthcare costs for all – in a nation with notably expensive health care already. Lack of health insurance can destroy a family's financial stability and initiate a vicious cycle whereby an uninsured individual is unable to pay for preventative care or disease monitoring, which makes the condition worse, and which in turn may render the person completely unable to work and attain insurance through an employer. Chronic illness is both caused by lack of health insurance and exacerbated by it.

What's more, when individuals with insufficient health insurance do seek medical attention, it is often in the costly setting of emergency departments. This is wasteful and dangerous, with needed care often coming only when an illness has reached an advanced stage and saddling hospitals with more



uncompensated care – leaving hospitals too often on the brink of closure. Many healthcare facilities in areas with a relative lack of insurance coverage rely on programs like Medicaid to be able to operate; removal or serious reduction of these safety nets will cause smaller, rural hospitals to collapse. When rural hospitals close due to high uninsured rates in their communities, the driving distance to the nearest hospitals typically increases by 20 to 40 miles, regardless of whether one is publicly or privately insured. This added time can be fatal when it delays timely, life-saving medical interventions in cases such as heart attack or stroke. A high proportion of people lacking insurance coverage in a community results in diminished access to healthcare for all people in that community, even if they are insured.

When those who are uninsured or underinsured obtain care, unsurprisingly, the resulting medical debts are unevenly distributed, with <u>Black and low-income patients disproportionately likely to carry the burden of medical debt</u>, which in turn can adversely affect credit and impede efforts toward upward economic mobility. Even when individuals successfully enroll in Medicaid, the American healthcare system imposes administrative burdens that can impede continuity of coverage. The introduction of Medicaid "work requirements" – more accurately characterized as "paperwork requirements" – is associated with people <u>losing coverage for which they have a qualifying income</u>, not because they won't work or don't have an approved exemption, but because of difficulty documenting their compliance. What's more, the administratively burdensome nature of enrollment in disability benefits through SSI/SSDI can inhibit disabled patients' ability to be exempt from this requirement, even if their physical limitations cannot withstand half-time employment or more. This can, in turn, lead to worse health outcomes and greater financial fragility for America's most vulnerable.

Ultimately, this cycle translates into more severe disease for the individual and may destroy a family's finances altogether, ultimately harming the whole community. In areas with comparatively low rates of insurance, health insurance premiums or taxes may increase for all in order to make up for their uninsured neighbors' inability to pay. The potentially catastrophic effects of reducing access to healthcare on both individual and community health are well-established, and addressing this problem begins with access to healthcare.

As a major social determinant of health, healthcare coverage should be expanded and made more equitable, and the United States should move toward universal coverage for all. The expansion of healthcare access must include mental healthcare, of which there is a severe shortage in the U.S., particularly for pediatric mental healthcare. It should also include access to legal and safe abortion and gender-affirming care. Specifically, all restrictions on gender-affirming care when such care is deemed needed and appropriate by the patient (and adult guardian, when applicable) and their healthcare provider should be eliminated.



Support Comprehensive Sexual and Reproductive Health Care Access

Improving the health of America together requires access to safe and affordable sexual and reproductive healthcare, including at Title X clinics such as Planned Parenthood, which offer comprehensive care including contraceptive care, cancer screenings, STD testing and treatment, HIV testing and referrals for treatment, and prenatal care. In fact, research has shown that when Planned Parenthood was removed from the Texas Women's Health Program, there were reductions in the most effective forms of contraception (long-acting reversible contraception), and an increase in the rate of childbirth covered by Medicaid. Planned Parenthood has historically had a major role in mitigating some of the adverse social determinants of health among people living in the U.S.

To truly improve the health of Americans, the country must also promote the safety of childbirth. While the U.S.'s overall maternal mortality rate declined to 18.6 deaths per 100,000 live births, this figure is still much higher than most OECD peers, which average 10.9 deaths per 100,000 births. Worse, the maternal mortality rate is a staggering 50.3 deaths per 100,000 live births among U.S. Black women, another glaring example of the impacts of the social determinants of health. Despite America's high Black maternal mortality rate, Black women's access to comprehensive reproductive health care has typically been impeded by the Hyde Amendment, which drives social determinants of health related to socioeconomic and racial gaps in access to care and must be repealed. Further, research has shown that planned pregnancies tend to be healthier, capitalizing on preconception health promoting behaviors, while unintended pregnancies are associated with later entry into prenatal care and low birthweight. To reduce risks of maternal death, the U.S. must expand access to family planning, prenatal care and postpartum follow-up, including affordable mental healthcare to address postpartum depression, and treatment of abortion as an essential component of women's health care as advocated for by the American College of Obstetricians and Gynecologists (ACOG). Related to this, authorities should enforce the guarantees of the Emergency Medical Treatment and Active Labor Act (EMTALA) when pregnancy complications arise.

Gender-affirming care for transgender individuals must be readily available, according to guidelines established by professional organizations. Federal policies impeding such care, research into gender identity, or discriminating against transgender persons must be immediately reversed.



Fully Fund Scientific Research and Public Health Systems

Cutting research funding has severe consequences for both the health of the U.S. population and the economy. While a clear throughline between research and clinical practice is often not obvious to the public at large, funding reductions to medical and scientific research, including research focused on traditionally underserved populations, will halt progress in prevention and treatment of chronic illness for all. It has been estimated that between 2010 and 2019, 99% of new medications had been studied with funding from the National Institutes of Health (NIH). Projects from the National Science Foundation (NSF) have had major impacts on environmental health and climate change, including reducing the harms to health from earthquakes and floods.

Curtailing funding hinders new discoveries and mires Americans in older, less advanced disease prevention and treatment approaches. It inhibits a deeper understanding of the social determinants of health and the development of solutions to improve the health of all of the people of the United States. Modeling the impact of funding cuts to NIH research has shown that it will result in <u>82 million fewer years of life for Americans</u>. But it's not just years of life that are reduced with cuts to NIH funding; the economy suffers harm as well. <u>Each dollar in NIH and NSF funding results in approximately \$2.50 in economic activity, for a total of \$93 billion generated in 2023.</u>

Cutting funding for NIH and NSF ultimately hurts all Americans from both a health and an economic standpoint. Scientific research funding is critical for maximizing innovative strategies for disease prevention and treatment, mitigating the effects of climate change and environmental threats, and addressing the social determinants of health.

Reductions in HHS funding that supports public health infrastructure and programs in every state and community also raise grave concerns. The Centers for Disease Control and Prevention has long been the most reliable source of funding and guidance to optimize the public's health. State and local health departments benefit from both funding and other infrastructural support from the CDC, such as uniform data systems and technical assistance. Reporting of serious public health threats from multiple different states to the CDC allows for rapid assessment of any concerns that need to be immediately addressed and quick dissemination of relevant information. Given the global supply chain, foodborne illness is an excellent example of the need for CDC involvement in identifying and recalling any causal sources for illnesses that arise across different states. It is critical to support the CDC and state and local health departments with funding to enhance and protect the health of communities across the U.S. Fragmented public health systems are more expensive and less effective without uniform national oversight, funding and technical expertise from the CDC.

All cancelled research funding should immediately be restored, and all institutions and enrolled patients who have been affected by the irrational funding cuts and firings that have occurred at the NIH and NSF, as well as more broadly across the United States, should be compensated for the resulting disruption and extra costs. Funding for HIV prevention, research and treatment, diversity, equity and inclusion, disability health, climate change, and global health should be



restored. Arbitrary cuts to indirect cost rates should be rejected. Understudied subjects, including those of less interest to pharmaceutical companies, should receive increased support. In addition, all funding to the CDC and state and local health departments must be restored in order to maintain a public health system designed to serve every community and every population in the United States.



Build Strategies for Clean Air

Clean air is critical, both indoors and outdoors, for maintaining health. Air pollution has long been known to have numerous adverse impacts on human health, including increasing the risk of stroke, ischemic heart disease, chronic obstructive pulmonary disease, lung cancer, pneumonia, and asthma. In 1948, it took the deaths of 20 people in Donora, Pennsylvania to prompt the first iteration of the Clean Air Act. Outdoor air pollution also tends to have the greatest adverse impact on the most vulnerable people in the U.S.; those with lower socioeconomic status often live closest to areas with heavy pollution sources, such as highways and industrial areas, and as such is another example of the impact of the social determinants of health. More recently, the COVID-19 pandemic brought the importance of ventilation and air filtration to the forefront, despite the fact that airborne transmission of SARS-CoV-2 was denied or downplayed long after it was originally documented.

As the pandemic continued, research demonstrated that high-efficiency particulate air (HEPA) filters were effective at removing SARS-CoV-2 from the air. HEPA filtration also removes numerous other contaminants from the air, including dust, pollen, mold, and bacteria. Despite this, HEPA filters were only added in certain settings, and in many cases have already been removed due to lack of funds upon termination of COVID-19-related funding. The United States must get serious about indoor air purification, building on what the Biden administration started a few years ago. Medically informed, enforceable indoor air quality standards and a verification system whereby people know when a building they enter meets them must be developed. Schools and medical facilities are obvious first targets for these interventions, followed by public buildings where large and/or dense crowds congregate. Stakeholders can be provided with generous technical and financial support in meeting those standards, and a reasonable amount of time in which to do it. While this program is ramping up, local organizations that are now struggling with limited resources to assist with indoor air purification should be provided with funding to fill the gap.

Additionally, masking with high-quality respirators, which could be viewed as individualized air cleaning, has been shown repeatedly to be an effective strategy for reducing the risk of COVID-19 infection. The political furor surrounding masks was driven by misinformation that was in turn amplified by social media. Many businesses and schools responded to anti-mask sentiment by removing mandates, and in several unfortunate cases, banning masking altogether, which is unacceptable and endangers the health of individuals who are immunocompromised or who otherwise fail to launch an effective immune response to vaccination. Masking is an effective way to reduce the risk of infectious disease as well as the harm that can arise from other contaminants. Masking should be encouraged in all medical settings, in crowded indoor spaces, and when individuals are symptomatic, in order to reduce disease transmission. Even if mask mandates are a political non-starter, there's still plenty that can be done. First, officials can talk about it and actively encourage people to wear high-quality protection like N95 respirators when in busy, indoor spaces. They can remind people that COVID is not over, not just a cold, and that even a "mild" case can change your life forever. Federal, state and local governments could distribute N95s or KN95s free or at minimal cost.



With regard to outdoor air pollution, funding and staffing for the Environmental Protection Agency (EPA) that have been cut must be restored. It has been estimated that proposed reductions in EPA resources will result in 100 million asthma attacks and cause 200,000 premature deaths. These effects will be most prevalent among those who are socioeconomically disadvantaged. It is not unreasonable to expect that continued undermining of the EPA and its programs could lead once more to a situation like that in Donora in 1948.

Therefore, in order to improve the health of Americans, it is imperative to restore EPA funding and staffing, to enact interventions such as air filtration in public spaces, and to promote and encourage masking.



Combat Scientific Misinformation

No one can make good decisions based on bad information. Sadly, the United States government, as of January 20, 2025, has become a major producer and amplifier of scientific misinformation. As HHS Secretary, Kennedy has personally spread misinformation, as has the President of the United States. The administration's quest to undermine science in the U.S. has manifested in the dismantling of key advisory committees, such as ACIP and the United States Preventive Services Task Force (USPSTF). These groups were formerly evidence-based and staffed by people with strong expertise; ACIP has now been filled with individuals who promote and amplify harmful pseudoscientific concepts. Further, misinformation has been added to government webpages, and government officials participate in the endless transmission of misinformation on social media. The United States government should be held accountable for misinforming the public, through advocacy, legal means where appropriate, and Congressional action.

Even before the pandemic, it was known that scientific <u>misinformation spreads significantly faster and is 70% more likely to be reposted</u> on social media than accurate information. Social media provides fertile ground for misinformation amplification via the process of <u>context collapse</u>, which occurs when different audiences are merged together into one environment. In other words, scientists and healthcare professionals discussing their research often assume a level of knowledge that, in practice, does not exist among the entire social media audience. This situation creates conditions for false conclusions or misinterpretation of data, because information is taken out of context. **Misinformation on social media is a major public health problem that harms the health of Americans.**

Numerous strategies have evolved for combatting scientific misinformation online, of varying effectiveness. Scientists can partner with social media companies to identify and suppress incorrect information that could be harmful to the public. Partnerships to make data <u>available to researchers</u> for study in order to clarify the genesis and impact of misinformation are critical. Although this was attempted during the pandemic, <u>the structure of social media</u> itself proved to be resistant to these efforts.

Although attempts to reduce misinformation are often met with claims of free speech violations, this is false. Companies are free to decide who can participate on their platforms, and can also freely monitor and mitigate the information being shared. Unfortunately, social media companies benefit from misinformation, because it <u>increases engagement</u> and therefore profit. Hence, there is little motivation for companies to reduce it. **Nonetheless, so critical is this challenge that continued efforts to pilot and test strategies for minimizing social media misinformation must occur promptly.**

All social media companies should permit <u>warning labels</u> to be added to posts containing misinformation. Efforts to debunk false statements should be encouraged. <u>Media and information literacy should be taught</u> at every level of education, in the workplace, and at home to support the ability of individuals to identify suspect information. Higher educational attainment, a social determinant of health, is a mitigating factor for the effect of misinformation, but teaching skills in healthy skepticism is an effective strategy for any educational level. Combating misinformation is challenging and requires multifactorial strategies, but it is so important to the health of Americans that leaders must pursue this goal aggressively.



Reduce Gun Violence

Gun violence is now the <u>number one cause of death</u> for children in the United States, and no serious discussion of improving the health of Americans can exclude a discussion of its <u>impact</u>. An average of <u>seven children</u> die from firearms every day in the U.S.; these comprise a full <u>30% of the mortality</u> among children aged <u>15-17</u> years. Pediatric firearm mortality is <u>especially high in states with permissive firearms laws</u>. As with many other aspects of health in America, not only are there legal determinants of health, with *McDonald v. Chicago* leading to the relaxation of many gun laws, but **the social determinants of health have a role here**, as <u>economic hardship is associated with higher rates of gun violence</u>. What's more, the risk of firearm-related homicide is <u>18 times higher</u> among Black children than their White counterparts. No child should ever die because of guns, let alone the <u>over 2,500</u> who do every year in the U.S.

The impact of gun violence is not confined to individuals who are tragically killed. The health impacts on survivors are often overlooked, but can cause both physical and mental injury that may persist throughout their lifetimes, requiring long-term treatment and care. Even if individuals are not directly physically harmed during an episode of firearm violence, as the number of events such as mass shootings continues to increase, so does the number of witnesses who experience trauma. Post-traumatic stress disorder is a chronic condition that arises from these tragedies and can impact affected individuals for years. Further, a growing number of people witness more than one episode of gun violence, and this experience is again more frequent within Black and Hispanic communities.

Collective trauma can occur even in communities that are physically distant from the location of an episode of gun violence. For example, shootings that target the LGBTQ+ community can cause hopelessness and fear among *any* member of this community and their allies.

Firearm violence does not only affect the health of individuals, it also carries with it overwhelming economic impacts, costing victims collectively a total of \$1 billion per year for healthcare expenses directly related to the harm experienced. School budgets can be decimated by the need for greater security, and economic harm inevitably comes to entire communities with higher rates of firearm violence.

The United States cannot afford to toggle back and forth on gun violence depending on who is in office at any given time. Progress toward reducing gun violence is inarguably critical in any plan to improve the health of Americans. Organizations focused on gun violence have made many recommendations which, if enacted, would reduce the number of children and adults dying from gun violence in the United States.

These include state laws requiring secure storage of firearms; closing loopholes for background checks for every firearm sale; reducing or eliminating the sale of weapons with large-capacity magazines; and removing the stigma and increasing available services for those seeking mental health treatment.

Firearm ownership remains a constitutional right in the United States. Nonetheless, steps can be taken immediately to reduce gun violence and the harm it does to individuals and communities.



Strengthen Pandemic Preparedness

Nature keeps propagating potentially pandemic pathogens, especially in animals, which are easily transferable to humans through zoonosis. Such transfers have occurred at increasing rates, including at least 13 times in the last 50 years. Multiple reasons underlie the increasing frequency of zoonoses, with climate change – the very existence of which the administration denies, despite mountains of evidence – heading the list. The advent and continuing persistence of the SARS-CoV-2 pandemic (COVID-19) and the politicization of the pandemic laid bare and exacerbated the vulnerabilities and deficiencies in U.S. pandemic preparedness. Again, the social determinants of health also play a key role in the effects of the pandemic on the United States population, with the most vulnerable people experiencing the greatest adverse effects of pandemics.

During the Obama administration, there was an active, fully staffed Office of Pandemic Preparedness and Response Policy in the executive branch, which advised the president and ensured that policies were in place for the U.S. to quickly detect, identify, and respond to emerging pandemic threats. This office has been ignored and not staffed by the Trump Administration. The government must create an independent, fully staffed Office of Pandemic Preparedness Policy, and it must include members who are not political appointees but rather who are fully vetted for knowledge, training and expertise in the topic.

In the past, the U.S. played a vital role in global monitoring for potentially pandemic pathogens, efforts which are necessary for early detection, rapid response, and containment to prevent spread. Only through global <u>field research</u> and monitoring dynamic pathogen populations *in situ* can we gather the information needed to ensure effective pandemic preparation. The Trump administration's <u>closing of USAID</u>, its <u>withdrawal from</u> the World Health Organization and other international monitoring organizations, and <u>cutting grants for global monitoring</u> not only weakens the world's ability to detect the next pandemic, but leaves the U.S. essentially blind to all emerging pathogens, both nationally and globally. For example, we stand in the midst of a potential H₅N_I bird flu pandemic, yet HHS Secretary Kennedy and the Trump Administration are <u>neither monitoring</u> it <u>nor preparing for it</u>. **U.S. funding for global pathogen monitoring must be restored as well as full involvement with world organizations for pathogen monitoring.**

U.S. pathogen research was once the best in the world, as was demonstrated by the strong research response to SARS-CoV-2 and the record speed of the development of a vaccine. Since January 2025, it has been hogtied by <u>ill defined regulations</u>, <u>executive orders</u> and research cuts, leaving it unable to adequately address the next pandemic pathogen that arises. The U.S. will be beholden to other countries for research discoveries, drug development and vaccines. **U.S. pathogen research must be saved by reconsidering ill-defined guidelines and executive orders and returning full funding to related research.**

Pandemic preparedness in the U.S. must be revived through 1) creation of an independent, fully staffed Office of Pandemic Preparedness Policy; 2) reestablishing and fully funding global and national pathogen monitoring; and 3) reconsideration of ill-conceived regulations and executive orders that impede U.S. pathogen research and vaccine development.



Robert F. Kennedy, Jr., Secretary of Health and Human Services, Should be Removed From Office

The single most important step toward improving the health of Americans together would be to remove Kennedy from his role as HHS Secretary as quickly as possible. Kennedy is wholly unqualified to oversee the scientific and healthcare functions of the United States government. For decades, he has <u>established himself as an anti-vaccine advocate</u>, and has been richly rewarded financially for these activities, <u>earning millions of dollars for spreading misinformation about vaccines</u>, <u>publishing anti-science</u>, <u>anti-vaccine books</u>, and for his role in lawsuits against vaccine manufacturers. Kennedy has suggested that <u>he does not believe that germs cause illness</u>. All of these factors point to a profound misunderstanding or willful denial of established science. These characteristics alone are disqualifying for the position of HHS Secretary.

Kennedy's actions since ascending to his position have borne out the concerns of the thousands of scientists and healthcare professionals who opposed his nomination as HHS Secretary. In the midst of a measles outbreak, Kennedy has repeatedly cast doubt on the Measles, Mumps and Rubella (MMR) vaccine, including falsely claiming that these vaccines contain "aborted fetus debris." Instead, he has prioritized recommendations for unproven and risky treatments such as vitamin A and cod liver oil, which has led to hospitalizations of children for liver damage due to excess vitamin A. He has stated his belief that measles infections do not warrant attention, even as two children have died so far in the U.S. from the disease in 2025. By July 2025, U.S. measles cases had already reached the highest level in three decades — for a disease that was declared eradicated from this country in 2000. These deaths were preventable with MMR vaccination. The HHS Secretary must be an individual who understands and unfailingly promotes basic public health strategies, such as vaccination.

Kennedy has overseen the <u>massive number of firings</u> from multiple federal health agencies and severe <u>funding cuts to research</u> sponsored by the NIH and the NSF. These actions have accurately been described as "catastrophic," because the outcomes, though some may take time to manifest, will include the <u>loss of new disease prevention and treatment strategies, devastating economic impacts</u>, and the <u>loss of the next generation of scientists</u>. He has cast numerous aspersions on peer-reviewed scientific publishing, <u>claiming without evidence that the process is "corrupt,"</u> and <u>culminating in the cancellation of government contracts with one of the largest and most prestigious scientific publishing companies in the world</u>. These actions align with his repeatedly-stated beliefs that people should "do their own research" instead of trusting scientific experts. The HHS Secretary must be a person who respects and promotes the work performed by the highly qualified scientists funded by HHS, instead of casting unfounded suspicion on it.

As mentioned above, Kennedy also dismissed <u>17 members of ACIP</u> and <u>replaced them with</u> members who were not properly vetted, several of whom have been active participants in activities that undermine



vaccines. These actions reflect his <u>anti-vaccine</u>, <u>anti-science</u> beliefs, and are well in line with his rejection of germ theory, which was established by the late 1800's. His actions in firing the ACIP panel, <u>has placed the system of vaccine recommendations in serious jeopardy</u>, which was likely the primary motivation for the firings. Further, Kennedy recently announced that he plans to terminate every member of the USPSTF, a <u>panel of independent expert</u> volunteer scientists who review data and provide recommendations for disease management and evidence-based preventative medicine. Their recommendations for services that prevent disease are required to be covered by health insurance in the United States, but Kennedy stated that he believes the members are "<u>too woke</u>." **The HHS Secretary must be a person who respects expertise and has the humility to listen to scientists and healthcare professionals who provide critical analysis of health strategies for Americans.**

All of the 17 dismissed members of ACIP should be reinstated, and the unqualified members of the committee appointed by Kennedy should be permanently removed. Further, all members of USPSTF should be returned to their roles.

Secretary Kennedy is a threat to the health of every person in the United States. He must resign or be removed from office in order to improve the health of Americans together.

