

(IV) The potential impact of the Trump administration policies on health research in the USA

Published Online May 16, 2025 https://doi.org/10.1016/ 50140-6736(25)01016-5 For more than 80 years, the US Government has invested in biomedical, clinical, and public health research, making it a world leader in science and cutting-edge advances in health. These discoveries led to historic reductions in morbidity and mortality from chronic diseases, fewer fatalities from motor vehicle crashes and other injuries, and the almost complete eradication of once fatal infectious diseases such as poliomyelitis. The US research enterprise has achieved substantial advances in intensive medical care, drug development, and technological innovations that have launched new industries, stimulated the economy, and strengthened national security.

However, despite this remarkable success, President Donald Trump and his administration are dismantling the country's health research infrastructure. The campaign began when a team led by Elon Musk started firing federal employees of health agencies, including government scientists, in unprecedented numbers.1 The administration cut health research funding across the board² and banned research on specific topics (eg, equity, racism, homosexuality, reproductive health, climate science, and foreign assistance).3

More dramatic reforms when occurred Robert F Kennedy Jr, the Secretary of Health and Human Services, launched a sweeping reorganisation of the federal health and research infrastructure-much of it driven by ideological aims. Kennedy Jr has eliminated entire agencies and programmes addressing leading health threats, such as chronic disease, smoking, injury prevention, mental illness, and drug overdoses and has launched projects to study long-discredited theories of disease origin.4 The budget proposal for 2026 calls for a catastrophic 40-50% decrease in funding for two lead agencies: the National Institutes of Health and the Centers for Disease Control and Prevention.5

The administration is also targeting universities, where most of the nation's health-related research occurs. All federally-funded institutions have been ordered to close offices responsible for diversity, equity, and inclusion, and to curtail research on health equity and other topics that have found disfavour with the administration.⁶ Greater demands have been placed on elite universities, which have encountered backlash when they have resisted. When Harvard University rejected a set of demands and sued the Government, the administration froze US\$2.2 billion in funding to the institution, halted new grants, and threatened to revoke its tax-exempt status.⁷

These moves have shaken US research institutions. Threatened by massive losses in federal funding, universities have been forced to freeze faculty hires, downscale or terminate research programmes, alter curriculua, and pause enrolment of new graduate students.8 A climate of fear has descended on academia, with many engaging in anticipatory obedience—taking pre-emptive steps not yet required by law to placate the administration and keep federal dollars flowing.9 Fearing losses of funding or job security, researchers are removing their names from publications, rewriting grant proposals and papers to remove terms that agencies will flag, or abandoning projects altogether.¹⁰

The administration is being thorough, seeking out diverse opportunities to apply its agenda to science and medicine. For example, web pages for federal databases now feature prominent banners that discredit data on gender minorities.11 Accreditation bodies have been ordered to alter their criteria for credentialling universities and medical education programmes.¹² The Government has begun investigating the editorial practices of medical journals.13



Although leaders of most scientific and medical organisations have not objected vocally to these moves, grass-roots resistance is mounting. Some organisations and institutions have taken the administration to court. More than 600 colleges, universities, and scholarly societies signed an open letter protesting "unprecedented government overreach and political interference". More than 2000 of the nation's top scientists published an "SOS to the American people". 15

To date, however, such expressions of concern have not shifted policy, and the administration's policies continue to have profound implications for health research, six of which are noted here. First, the reduced access to data and information will make it difficult for investigators, health professionals, and public health departments to design and conduct studies and to inform patients, clinicians, health services administrators, and policy makers.

Second, disruptions in health research will inevitably delay scientific progress and slow the production of new evidence for practitioners, policy makers, and patients.⁸ The gravest setbacks will occur to research topics villified by the administration, such as racial-ethnic health disparities, LGBTQ+ health, reproductive health, vaccines, and climate science. It will take years, if ever, to restart stalled projects.

Third, ideologically-driven censorship of federal data and research findings could weaken public confidence in the objectivity and independence of health research. Once the time-honoured firewalls to protect scientific independence are breached, a process now well underway, it will take years to restore trust that research findings are accurate, and were not modified to please the Government or special interests.

Fourth, the Trump administration is thinning the US workforce for health research. Deep cuts in funding to universities and termination of training grants will affect the careers of today's research faculty and reduce educational opportunities for graduate students, the next generation of scientists. The prospect of a career in health research is becoming less appealing in the USA. The so-called brain drain has begun; US scientists and prospective students are already moving overseas to pursue their careers in freedom.

Fifth, the Government's "America First" approach and withdrawal from WHO will impede collaboration between US health researchers and international colleagues, limit the exchange of scientists, and narrow the network of collaborators available to US researchers. The US State Department has been revoking visas and rejecting visa applications of international scientists and students. This isolationism—combined with the disinvestment in health research, the dismantling of the US Agency for International Development, and bans on foreign assistance—will weaken America's contribution to the world and trigger global health crises. It will also weaken US autonomy, making the country increasingly dependent on research and technology developed by other countries.

Sixth, the assault on science will erode public confidence in health research. The pride that Americans once held for their country's cutting-edge biomedical advances and public health accomplishments began to fracture during the COVID-19 pandemic.²⁰ Many Americans—and powerful leaders in the new administration—have embraced conspiracy theories, weakened confidence in scientists and public health research, and castigated universities as elitist, disconnected institutions.⁸

All this occurs against the backdrop of a health crisis in the USA. Despite decades of exorbitant spending on health care, the US population has shorter life expectancy and poorer health outcomes than those in other high-income countries.²¹ It has deep racial-ethnic inequities,22 a mental health crisis gripping children and young adults,²³ and a mounting chronic disease burden. While the Trump administration has committed to "making America healthier",24 its actions to destabilise the research enterprise could stall, if not reverse, efforts to improve population health. Other administration policies—eq, reducing health insurance coverage, lifting regulations on industry, rescinding climate-friendly policies, inflating the cost of living, and dismantling agencies devoted to education and social welfare—could also harm population health and widen inequities.

In the end, the fate of the US research enterprise depends on how the public and other stakeholders respond. The Trump administration and a compliant Congress have exhibited a steely determination to advance their agenda and defy opposition, even by the courts. Groups seeking to defend science are bringing lawsuits, petitioning Congress, and voicing their concerns at town halls and street protests. Whether these tendrils of resistance will shift policy remains

to be seen. A broad social movement may ultimately be required to preserve the nation's infrastructure for medical and public health research. In the meantime, the enterprise responsible for so much progress in domestic and global health hangs in the balance.

We declare no competing interests.

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