Population Health Metrics

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Measuring population health impact of the Trump administration's withdrawal from WHO and cuts to USAID: time to start counting

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The Trump Administration started at noon on January 20, 2025, and within hours, President Trump signed Executive Orders with broad and adverse implications for global health. On his first day, the President signed an Executive Order to withdraw the United States from the World Health Organization (WHO) and mandated immediate cessation of all contacts between the US government, including the Centers for Disease Control and Prevention (CDC), and WHO. Also on day one, the Trump Administration began to pause activities of the US Agency for International Development (USAID) and now appears to be dismantling it. Most employees have been dismissed or placed on leave. Subsequent to day one, there have been other actions that threaten activities of the National Institutes of Health and the US Environmental Protection Agency as well.

Established in 1961 by the US Congress, USAID has over 10,000 employees and an annual budget of USD 50 billion. USAID has been the government's lead agency for delivering humanitarian aid since its start. Its overall mission is intrinsically linked to population health in the countries where it is engaged. Some of its specific activities involve disease control, including HIV/AIDS, malaria, and polio; provision of food, water and shelter; and promotion of democracy and human rights. USAID also supports the implementation of the President's Emergency Plan for AIDS Relief (PEPFAR), which supplies antiretroviral therapy for millions of HIV-infected people. The administration has not announced any plans to fill the many gaps that have resulted from its actions, in spite of their consequences. On March 2, 2025, Nicholas Enrich, the acting assistant administrator at USAID for global health at USAID released projections of the consequences of eliminating USAID programs [1]. The numbers highlight the devastating impact to come from infectious diseases, malnutrition, and withdrawal of programs supporting maternal child health.

The Trump Administration's agenda for change also includes the CDC, the National Institutes of Health, and the US Environmental Protection Agency (EPA). Initiatives related to diversity, equity, inclusion and gender issues are a cross-cutting target and threaten certain lines of research and programmatic activity.

While we refrain from commenting on these decisions' political and ethical considerations, as the Co-Editors-in-Chief of *Population Health Metrics*, we emphasise the urgent need to assess their impact on global population health scientifically—starting now.

The need for rigorous impact assessment

Health research has long focused on evaluating the positive impacts of health policies, such as introducing new vaccines or more protective air quality standards. However, we are far less experienced in tracking what happens when steps are taken for which there is a strong prior basis for anticipating that they will damage population health. Unfortunately, these initial actions of the Trump Administration provide an opportunity and an imperative to assess the health consequences of withdrawing

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from WHO and cutting USAID funding and perhaps of other initiatives with implications for population health.

We can predict with certainty that withdrawal of infection and disease prevention measures will have immediate and countable consequences, as will interruption of nutrition programs that ward off starvation and the coming scarcity of essential medications. However, there will also be long-term, cascading effects that may play out for decades, including the erosion of health systems' capacities in low-income countries and a resurgence of HIV/AIDS.

Lessons from past funding withdrawals

Historical evidence demonstrates that reductions in health funding have profound and measurable effects on morbidity and mortality, often with devastating consequences for vulnerable populations. The abrupt withdrawal of U.S. support from global health initiatives under the Trump Administration is not without precedent, and prior policy changes provide stark warnings of the potential harms ahead. For instance, the Mexico City Policy, commonly known as the Global Gag Rule, has repeatedly been shown to disrupt reproductive health services in low-income countries. A study by Bendavid et al. (2011) [2] found that restricting U.S. foreign aid to NGOs providing reproductive health services led to increased unintended pregnancies and unsafe abortions in sub-Saharan Africa from reduced access to contraception. Similarly, reductions in U.S. funding for the President's Emergency Plan for AIDS Relief (PEPFAR) have had dire consequences. Murray et al. (2014) [3] demonstrated that cuts to PEPFAR funding were associated with higher HIV-related mortality rates, underscoring the critical role of sustained international aid in combating infectious diseases. Additionally, research on family planning programs has highlighted the cascading impact of funding withdrawals on maternal and child health. Patterson (2018) [4] found that reductions in U.S. support for reproductive health initiatives led to increased maternal mortality and unmet contraceptive needs in various African countries.

These previous explorations provide examples for rigorous evaluations that could be undertaken on the consequences of the current U.S. withdrawal from the WHO and dismantling of the USAID programs. Without empirical scrutiny, the full scope of the damage may remain obscured until preventable suffering and death have escalated. By applying robust epidemiological methods and accountability research frameworks, the global health community must assess and document the consequences of these policy shifts before the harm becomes irreversible.

The economic and financial consequences of funding cuts

Beyond the devastating health impact, the economic consequences of withdrawing USAID and PEPFAR funding are likely to be considerable and need to be counted. A recent analysis of PEPFAR cutbacks in South Africa estimated that a reduction in funding by $460 million would result in 565,000 additional HIV infections and 601,000 HIV-related deaths over ten years, ultimately increasing healthcare costs due to higher hospitalization and treatment needs [5]. Long-term financial burdens, including decreased workforce productivity, increased emergency care costs, and economic instability in affected regions, quickly outweigh the short-term savings from defunding global health programs.

For policymakers focused on return on investment, sustained health aid offers significant economic benefits. Every dollar invested in HIV treatment and prevention reduces future healthcare expenditures and supports financial stability. Historically, foreign aid has also played a strategic role in fostering economic partnerships and global security. Abrupt funding cuts risk undermining these investments, leading to higher long-term costs and economic setbacks in both donor and recipient countries.

Global security implications

The decision to withdraw U.S. support from the WHO poses significant risks to global health security. The WHO plays a pivotal role in coordinating international responses to health emergencies, such as pandemics and disease outbreaks. Without U.S. funding and leadership, the organization's capacity to manage these crises effectively is compromised, leaving all nations more vulnerable to health threats [6].

This reduction in support undermines disease-specific programmes and the global infrastructure designed to detect and respond to emerging health threats. In an interconnected world, weakening the WHO diminishes collective defenses against pandemics, ultimately rendering every country, including the United States, less safe and secure [6].

Defining meaningful metrics to measure impact

To accurately assess the consequences of these policy changes, researchers must establish clear, evidence-based indicators that capture both immediate and long-term health effects. A robust evaluation framework should include metrics that examine mortality and morbidity trends, access to essential health services, and the resilience of health systems in the wake of funding cuts. Cost estimates are also needed, particularly because of their sway with policy-makers.

One of the most pressing concerns is the potential rise in mortality and morbidity following the withdrawal of

USAID health funding. Previous research has shown that reductions in foreign aid can lead to deteriorating health outcomes, particularly among vulnerable populations. It is essential to closely monitor changes in infant and child mortality rates in countries that previously relied on USAID-supported health programmes, as disruptions in maternal and child health services can have devastating intergenerational consequences [4]. The rollback of U.S. support for PEPFAR, which has been crucial in providing antiretroviral therapy for millions of individuals living with HIV, may result in a resurgence of HIV/AIDS-related deaths, as observed in previous periods of stagnation in PEPFAR funding [3]. Moreover, cuts to USAID-supported immunization campaigns could lead to a rise in the incidence of vaccine-preventable diseases, including malaria, tuberculosis, and polio, which have experienced significant declines in prevalence due to sustained global health investments [2].

Equally critical is the need to measure access to essential health services in regions that previously benefitted from U.S. funding. The availability of lifesaving medications, such as antiretroviral therapy and tuberculosis treatments, must be tracked to determine whether supply chains are disrupted or whether alternative funding sources can mitigate gaps. Vaccination rates should be monitored in previously USAID-supported regions, as reductions in immunization programs have historically been linked to outbreaks of vaccine-preventable diseases in low-resource settings [7]. Additionally, food security and malnutrition levels must be assessed in areas that have experienced the withdrawal of U.S.-funded nutrition assistance programs, as studies have demonstrated a direct correlation between cuts to nutrition aid and increased rates of childhood stunting and acute malnutrition [8].

Beyond direct health outcomes, researchers must also assess the robustness of health systems and the capacity of international organisations and donor coalitions to bridge the funding gap following the U.S. withdrawal. The ability of the WHO, the Gates Foundation, and European Union partners to maintain essential programs will be a pivotal factor in the global response. Historical precedents indicate that, although international donors may strive to make up for the lost funding, these efforts are frequently delayed, fragmented, and inadequate to avert negative health outcomes [9]. Moreover, the integrity of global disease surveillance systems must be scrutinized, as weakened international coordination and funding shortages might undermine outbreak detection and response efforts, heightening the risk of uncontrolled epidemics [10].

Considering these risks, the global health community must act promptly to document and analyze the impact of these policy changes with rigorous epidemiological methods. Without a comprehensive and timely assessment, the full extent of the damage may only become apparent after preventable suffering and loss of life have already taken place.

Accountability research: evaluating damage and responsibility

The term "accountability research" has gained significant traction in environmental health as a means of measuring the health benefits of policy interventions. For instance, studies have assessed how tightening air quality standards reduces respiratory illness rates and improves public health outcomes [11, 12]. However, in the current context of the U.S. withdrawal from WHO and cuts to USAID, the focus of accountability research must shift from evaluating progress to measuring harm. The immediate challenge is to assess the extent of damage caused by these abrupt policy changes, ensuring that their health consequences are systematically documented so that decisions with adverse consequences can be reconsidered. Powerful lessons may be learned by monitoring what happens after the removal of interventions and other public health activities that are in place because of their effectiveness.

These policy reversals present an unfortunate but scientifically valuable natural experiment, allowing researchers to employ quasi-experimental methods to rigorously analyze their effects. One such approach is difference-in-differences (DiD), which compares health trends in affected countries before and after policy changes, using unaffected nations as a counterfactual control [13]. This method has been widely used in global health research to measure the impact of policy shifts on disease burden and mortality trends [14]. Another approach is interrupted time series analysis, which assesses sudden disruptions in health indicators following significant policy changes [15]. This method has been successfully applied to evaluate the impact of public health interventions, such as the introduction of vaccination programs or tobacco control policies [16]. Lastly, synthetic control methods provide a more advanced counterfactual estimation, constructing a synthetic version of an affected region based on a weighted combination of similar but unaffected areas, offering a robust means of estimating what would have happened in the absence of funding cuts [17].

By leveraging these rigorous analytical techniques, researchers can generate high-quality evidence to quantify the health impact of U.S. policy reversals. This evidence will be essential in informing global health advocacy, reinforcing the urgency of restoring critical funding, and showing the consequences of various decisions.

Call to action: a scientific obligation

As global health researchers, we bear a critical responsibility to document, measure, and analyze the consequences of these policy decisions with scientific rigor and urgency. The health impact of the U.S. withdrawal from the WHO and the dismantling of USAID programmes must not go unexamined. Even basic before-and-after comparisons can yield valuable insights, while more sophisticated epidemiological methods will enhance our ability to establish causal relationships. Fortunately, existing surveillance systems and vital statistics provide a robust foundation for this work—unless they, too, are undermined by weakened global coordination and reduced funding.

We urge our colleagues in the global health research community to mobilize immediately and apply rigorous accountability research frameworks to assess the damage already unfolding. *Population Health Metrics* stands ready to publish high-quality studies that quantify these effects, expose unintended harms, and hold policymakers accountable for their consequences. Research must not only track what has been lost but also provide a scientific record of preventable suffering, ensuring that decision-makers are aware of the human cost of their actions.

Traditionally, burden of disease estimates have guided policymakers in identifying what can be prevented, while accountability research has measured the gains achieved through policy interventions. Now, however, we face the stark necessity of measuring harm—assessing not what has been gained but what has been lost. The policies enacted in the weeks of the Trump Administration have triggered consequences that demand urgent investigation. If accountability is to hold any significance, those who have implemented these changes must confront the impact of their decisions.

Ironically, these abrupt policy reversals offer a grim and unfortunate yet methodologically sound opportunity for assessing the real-world consequences of withdrawing global health funding and severing international partnerships. The effects will be measurable, and the typical challenges of confounding and bias will be less daunting than in many public health evaluations. The scientific community cannot remain passive in the face of these developments. We urge researchers worldwide to conduct studies, analyze trends, and publish findings that will serve as both a historical record and a call for accountability.

The time to act is now. The health of millions depends on our ability to document, analyze, and insist on accountability before the damage becomes irreversible.

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