

What one pandemic can teach us in facing another

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Almost exactly 39 years ago, the US Centers for Disease Control reported five cases of *Pneumocystis carinii* pneumonia among previously healthy gay men [1]. By the end of 1985, HIV was reported from every region in the world. Three decades later, 75 million people have acquired HIV and about 32 million have died from it [2].

HIV was the first pandemic that shaped my career – as it has for so many of my peers. Indeed, it fundamentally changed how we think about and respond to major health threats. HIV continues to be a clarion call – for countless scientists, health providers and community advocates around the world. And, sadly, four decades on, this pandemic still rages across the globe.

Today, for the first time in history, the world is experiencing two pandemics at the same time. What are the similarities and differences between the two pandemics? Are there lessons learned from confronting HIV that should guide the response to COVID-19 pandemic?

In terms of similarities, both pandemics are caused by zoonotic viruses. For HIV, research confirmed that the virus was transmitted from nonhuman primates to humans while SARS-CoV-2 is thought to have originated in bats [3,4]. In addition, both viruses are transmitted from person to person. The predominance of HIV transmission through sexual route and via injection drug use has resulted in profound stigma associated with it [5–7]. At the same time, COVID-19-related stigma has already been noted, including blaming outsiders [8]. Another similarity is that both epidemics have shed light on gaps in health systems. HIV, as a chronic

communicable disease, required a transformation from a focus on acute care to be able to deliver on the chronic and ongoing needs of people living with HIV [9,10]. The COVID-19 pandemic, in contrast, has highlighted the fragility of surveillance and contact tracing systems, the paucity of measures to protect health providers, and the limited infrastructure for advanced care [11–14].

The good news is that the decades of struggles in confronting the HIV epidemic provide important lessons relevant to the control of the COVID-19 pandemic.

Firstly, political leadership is critically important. The early denial of the HIV epidemic in South Africa and the United States resulted in unnecessary loss of life [15–17]. Early denial of the risk of COVID-19 by leadership in the United States resulted in it leading the world in the number of cases and deaths. Similar reluctance in Brazil has resulted in the country leading all Latin American countries in the number of COVID-19 cases with an alarming number of deaths [18,19].

Secondly, perhaps the most durable legacy of the HIV response is the recognition of the critical importance of engaging communities, whether through the early voices of gay advocates in the United States or the vibrant participation of people living with HIV as peer educators around the world [20,21]. It has rapidly become evident that COVID-19 is disproportionately affecting African Americans and Latinos in the United States, with data showing them to be twice as likely to die from COVID-19. Similar adverse impacts have been noted among vulnerable populations in country after country around the world. We need to take the lessons learned from HIV

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and work to engage the communities most severely impacted by COVID-19.

Thirdly, it is widely acknowledged that the successful global response to the HIV epidemic was because of strengthening all pillars of the health system [22]. Addressing the need for lifelong treatment for HIV required investment in laboratory and medication procurement systems, training and mentorship of diverse health cadres and development of innovative models of care. A similar comprehensive approach is needed in order to ensure an effective response to COVID-19.

Fourthly, while during the early desperate years of the HIV epidemic, advocates reached for unproven treatment, they quickly became strong supporters of science-based interventions [23–25]. The harm caused by unproven HIV treatments should inspire caution and motivate a commitment to rigorous science in evaluating potential treatments and preventive measures for COVID-19.

Fifthly, the HIV epidemic showed us the importance of using data to inform action. National surveys in African countries provide this kind of granular data [26]. COVID-19 data from New York City, as another example, point to specific zip codes with the highest burden of COVID-19 [27]. These are the areas where we must focus our efforts in order to achieve equity, where intensive outreach is needed, and where testing sites and treatment resources should be situated to allow for rapid identification of cases.

Lastly, epidemics thrive on mistrust and myths. Conspiracy theories about HIV has jeopardized lives by provoking reluctance to get tested or to initiate treatment. As we face the COVID-19 epidemic, it behoves us to take the lessons from HIV to heart and identify trusted spokespersons armed with accurate information who can reach the affected populations with reliable information.

Experiencing two concomitant pandemics is unprecedented. Although attention has shifted to COVID-19, I fear we risk forgetting that the HIV pandemic still affects millions of people. We risk turning our attention to the issue of the moment, neglecting other health threats that people face. With a generation of experience as our guide, I am hopeful that the lessons learned from the first pandemic that defined my career can help bring the second one under control and with far fewer lives lost.

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Conflicts of interest

There are no conflicts of interest.

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