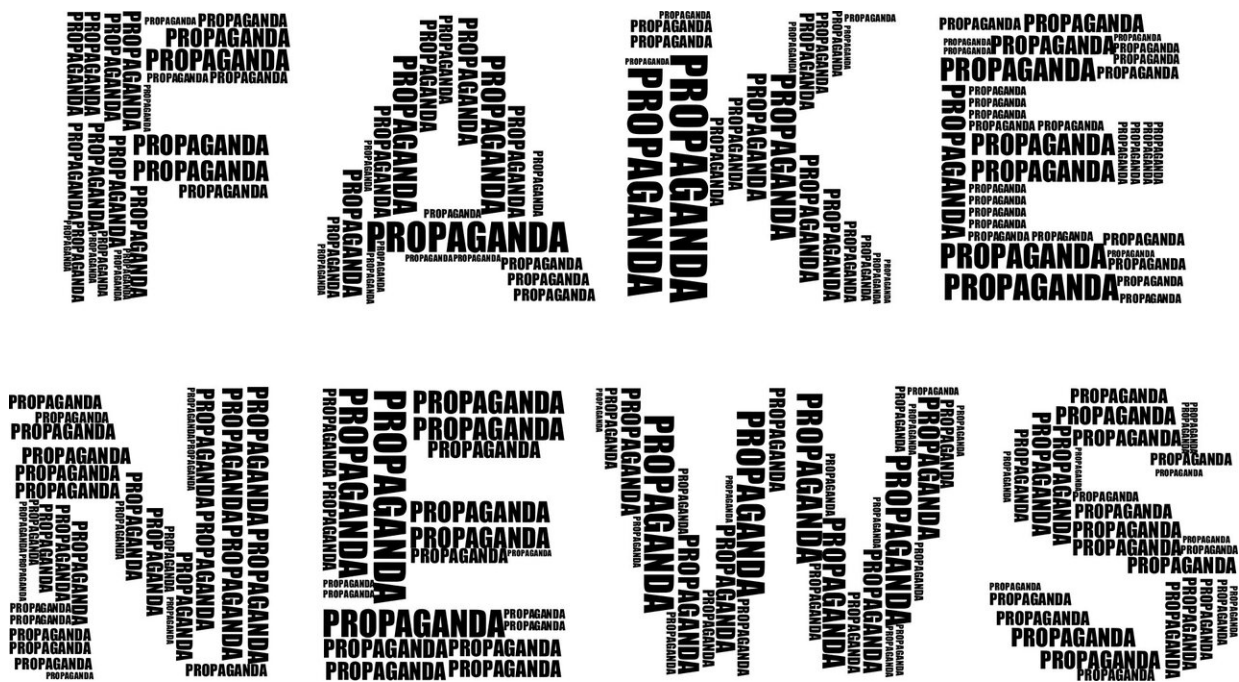


Misinformation is a common thread between the COVID-19 and HIV/AIDS pandemics—with deadly consequences

August 25 2022, by Cristian Apetrei



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Since health officials confirmed the first COVID-19 cases, [misinformation](#) has spread just as quickly as the virus. Social media may have made the amount, variety and speed of misinformation seem unprecedented, but COVID-19 isn't the first pandemic where false and harmful information has set back public health.

Misinformation altered how people trusted their governments and doctors during the [1918 influenza pandemic](#). It fueled the 19th century smallpox anti-vaccine movements through some of the same arguments as those currently used against the COVID-19 vaccine.

What sets the COVID-19 pandemic apart, however, is the sheer magnitude of damaging disinformation put in circulation around the world. Data shows that regions and countries where disinformation thrived experienced more lethal pandemic waves despite vaccine availability. In the U.S., for example, [viewership of a Fox News program](#) that downplayed the pandemic is associated with increased COVID-19 cases and deaths. Similarly [in Romania](#), disinformation is a contributing factor to the country's [disastrous fourth wave](#) of COVID-19.

The problem of [misinformation](#) has been so widespread that it has its own word: "[infodemic](#)," a portmanteau of "information" and "epidemic." Coined by journalist David Rothkopf during the [2003 SARS outbreak](#), it describes a situation where "a few facts, mixed with fear, speculation and rumor, are amplified and relayed swiftly worldwide by modern information technologies."

Infodemics can affect economies, politics, national security and public health. The COVID-19 infodemic became such a problem that [the Royal Society and the British Academy](#) released an October 2020 report noting its significant impact on vaccine deployment, endorsing legislation that prosecutes those who spread misinformation.

As a [researcher who studies HIV](#) and lived through the AIDS pandemic, I felt a sense of déjà vu as COVID-19 disinformation spread. In the 40 years since the emergence of AIDS, society has learned how to cope with the disease with more effective [diagnostics](#), [treatments](#) and [preventive strategies](#), transforming AIDS from a lethal condition to a [chronic disease](#).

However, there are [striking parallels between the HIV/AIDS and COVID-19 pandemics](#) that show the dire consequences disinformation can have on both patients and society as a whole.

Denying the existence of a virus or a pandemic

There are people who [deny the existence of COVID-19](#). There are [abundant claims](#) on [social media](#) that the virus that causes COVID-19 has never been isolated, or it is insufficiently characterized. Others do not contest the existence of COVID-19, but [ignore the severe consequences of infection](#).

In general, these groups tend to also deny germ theory, claiming that infectious diseases are not caused by pathogens like viruses and bacteria. Instead, they [promote the idea](#) that pathogens don't cause disease, but rather are a consequence of it.

Likewise, some denied the role of the HIV virus in AIDS infection. AIDS denialist Peter Duesberg was one person who disseminated this misinformation, which had been [refuted by the scientific community at large](#). But his erroneous claim still reached the then president of the Republic of South Africa, Thabo Mbeki, who banned the use of lifesaving antiretrovirals in public hospitals. This decision resulted in the [deaths of over 330,000 people from HIV/AIDS](#) between 2000 and 2005.

Mbeki's decision was considered so damaging that scientists and physicians worldwide signed the [Durban Declaration](#), reiterating that HIV indeed causes AIDS and urging Mbeki to reconsider his decision. While the government did [reverse the ban](#) after strong international political pressure, the damage had been done.

Gain of function claims

Gain of function experiments involve manipulating a pathogen to understand what contributes to its ability to cause disease. At the same time, such experiments can give pathogens new abilities, such as making viruses more transmissible or more dangerous to humans. Conspiracy theorists have [made claims](#) that the COVID-19 virus resulted from alterations to a bat version of the [virus](#) that gave it the ability to replicate in human cells.

But these claims ignore several [key facts about the COVID-19 virus](#), including that all coronaviruses from bats can infect humans without additional adaptation. The mutations that increased the transmissibility of COVID-19 occurred after it started circulating in people, resulting in even more infectious variants.

HIV also saw [conspiracy theories](#) claiming that it was created in a lab for genocide. But research has shown that HIV also naturally evolved from an animals. African non-human primates are natural hosts to a vast group of viruses collectively called [simian immunodeficiency viruses \(SIV\)](#). Despite their high rates of SIV infection in the wild, these primate hosts typically don't experience symptoms or progress to AIDS. Throughout the evolutionary history of SIV, [jumping to a new host species](#) involved naturally occurring genetic changes over the course of thousands of years.

Miracle cures

During a [public health](#) crisis, researchers and [health officials](#) are learning about a disease in real time. While missteps are expected, these can be perceived by the public as hesitation, incompetence or failure.

As researchers looked for possible COVID-19 treatments, others were offering their own unproven drugs. [Multiple treatments](#) for COVID-19, including ivermectin and hydroxychloroquine, were [tested and](#)

[abandoned](#). But not before large amounts of time, effort and money were spent on disproving claims that these were supposed miracle treatments. [Similarly for HIV](#), frustration and anxiety from a continued lack of available treatments amid rising deaths led to fraudulent cures, with price tags of tens of thousands of dollars.

Even though treatment delays and changing guidelines are a natural process of learning about a new diseases as it unfolds, they can open the door to disinformation and generate [distrust in doctors](#) even as they care for infected patients.

Preventing misinfodemics

The next pandemic is not a question of if but when and where it will occur. Just as important as devising ways to detect emerging viruses is developing strategies to address the misinfodemics that will follow them. The recent [monkeypox outbreak](#) has already seen similar spread of mis- and disinformation about its source and spread.

As author [Gabriel Garcia Marquez](#) once said, "A lie is more comfortable than doubt, more useful than love, more lasting than truth." Countering misinformation is difficult, because there are [reasons other than ignorance](#) for why someone believes in a falsehood. In those cases, presenting the facts may not be enough, and may sometimes even result in someone doubling down on a false belief. But focusing on urgent scientific and medical needs to the exclusion of rapidly addressing misinformation can derail pandemic control. Strategies that take misinformation into account can help other pandemic control measures be more successful.

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