

Failure to eradicate polio allows a resurgence of this dread disease

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In June, the poliomyelitis virus was identified in wastewater in Rockland County, New York, north of New York City. The fact that this was no isolated occurrence was soon confirmed by additional detections from wastewater in June and July at two different locations in Orange County, New York, also a northern suburb of the city. The poliovirus has now been documented in wastewater samples from New York City as well, indicating that the infection has already spread widely in the metropolitan area, potentially affecting millions.

Testing of wastewater for polio is not routinely done, because of the expense, and because the disease was declared eliminated in the US by 1988. Tests were initiated after an infected individual, who was unvaccinated, was identified in Rockland County. He has suffered paralysis. This outbreak coincides with reports that the virus had been detected in wastewater in London, the British capital.

The failure of the decaying capitalist system to provide effective health care for the vast majority of the world's population, including protection from the threat of infectious diseases, has been shockingly and criminally demonstrated by the total mismanagement of the response to COVID-19, followed by the rapidly developing monkeypox pandemic. Now, as if to emphasize the point, polio, also known as poliomyelitis, a dread disease that had been effectively eliminated in the United States and much of the rest of the world nearly a decade ago, has been detected in the northern suburbs of New York City.

Following a now well-worn script, officials on both sides of the Atlantic immediately swung into action to declare that the re-emergence of polio is nothing to be worried about. Vaccinated people should not be concerned. Indeed, it is true that fully vaccinated individuals have long-lasting immunity to the disease. According to the Centers for Disease Control and Prevention (CDC), however, the duration of effective immunity for people who were vaccinated as children is unknown, possibly creating a large pool of vulnerable older individuals.

There have been no domestically derived cases in the US since 1979 and none of foreign origin in the US since 2013. However, until the virus is totally eradicated worldwide, the potential exists for renewed spread, especially in areas with low vaccination rates. There is no cure for polio once contracted.

Historically, polio, which has existed for thousands of years, primarily affected children, leaving about 1 percent of those who came down with the disease paralyzed for life, and in some cases causing death. However, it can affect people of any age. In some cases, muscle pain, weakness or paralysis can develop up to 40 years after infection.

Before effective vaccines were developed, the disease, which is highly contagious, was widespread and much feared due to its often devastating effects. It can be spread via contact with the saliva, feces (either directly or via contaminated water or other materials), or by droplets or aerosols from an infected person. In the late 1940s and early 1950s, waves of polio, which tended to peak during summer, resulted in tens of thousands of cases of paralysis per year in the US alone. Parents feared letting their children go outside to play due to the danger. Travel restrictions and quarantines were imposed to help reduce the spread, with substantial public support.

The introduction of vaccines, inactivated poliovirus vaccine (IPV) in 1955 and oral poliovirus vaccine (OPV) in 1963, resulted in a dramatic reduction in US cases to an annual average of fewer than 100 in the 1960s and fewer than 10 in the 1970s. The oral vaccine contains live, but “attenuated” virus, which can reproduce, spread from person to person and, in some cases, cause disease. The inactivated vaccine contains only “killed” virus, which cannot reproduce. Both are highly effective in preventing disease in fully vaccinated individuals.

While much progress has been made by the Polio Global Eradication Initiative since it was launched in 1988, insufficient funding and incomplete penetration in areas of extreme poverty and military conflict have prevented total eradication.

Polio remains endemic in only two countries—Afghanistan and its neighbor Pakistan. In Afghanistan in particular, the decades-long wars and political upheavals fomented by the US and other imperialist powers have substantially hampered immunization efforts. In addition, based on data provided by the World Health Organization, cases continue to appear in multiple areas across Africa. For example, during the last 12 months, the most frequent occurrences have been 258 cases reported in Nigeria and 81 in the Democratic Republic of Congo. In addition, 119 were identified in war-torn Yemen, certainly an undercount. One case was identified in Israel this

past February.

According to the CDC, 72 percent of those infected are asymptomatic and another quarter experience flu-like symptoms. However, its high infectivity results in large numbers of severely affected individuals, despite the relatively low proportion of severe cases. As with COVID-19, polio can be spread by asymptomatic individuals, making testing, contact tracing, and quarantine essential tools in controlling and ultimately eradicating the disease. Without global eradication, the disease can continue to propagate, flaring up repeatedly in areas of insufficient vaccination.

Recent detection of poliovirus in the wastewater in London and the northern suburbs of New York City clearly indicates the imminent danger posed by deficient public health measures. News reports reveal that the virus has been detected 116 times in the London area since February. Europe as a whole had been declared polio-free in 2003. The United Kingdom Health Security Agency has concluded that genetic analysis of the samples suggests that spread of the virus “has gone beyond a close network of a few individuals.” In other words, community spread is taking place. As a result, the government’s Joint Committee on Vaccination and Immunisation has recommended a rapid booster campaign for children aged one to nine, suggesting an inadequate level of existing vaccination against a disease that has not been eradicated worldwide.

In New York state, health officials described what has been seen so far as likely “the tip of the iceberg.” There could be hundreds or even thousands of undiagnosed cases in the state. Multiple hits in wastewater in two counties indicate that community spread is occurring. A CDC team has been dispatched to New York to participate in the investigation of the outbreak. Local officials are quoted by CNN as stating that the CDC personnel are “the opposite of cautiously optimistic.”

Mehring Books, the publishing arm of the Socialist Equality Party (US), is proud to announce the publication in epub format of Volume 1 of *COVID, Capitalism, and Class War: A Social and Political Chronology of the Pandemic*, a compilation of the *World Socialist Web Site's* coverage of this global crisis.

The CDC recommends a minimum vaccination rate of 80 percent of the population to keep polio from spreading. Rockland and Orange counties have only 60.34 and 58.68 percent, respectively. Overall, 25 of the 62 New York counties have vaccination rates below 80 percent, according to the New York State Department of Health.

One must ask, how can the clearly developing pattern, first with COVID-19, then monkeypox, and now, potentially with polio, not point to an underlying failure of the capitalist system as a whole?

In many poorer countries, OPV vaccine is used because it is given orally and, therefore, easier to administer than the “killed” virus vaccine, which must be injected in two to four doses. Unfortunately, the “attenuated” virus in the oral vaccine

can sometimes mutate and become infectious and cause disease, what is known as “vaccine-derived” polio. The oral vaccine has not been administered in the US since 2000. Genetic testing indicates that the infected individual in Rockland County had contracted “vaccine-derived” polio from someone who had received the oral vaccine. The 116 wastewater detections of poliovirus in London are also of the oral vaccine type.

This window of opportunity for the virus created by the oral vaccine could have been closed if sufficient resources had been allocated to permit universal use of the inactivated virus vaccine. Again, the lack of proper funding to mount an effective, global eradication campaign has allowed the persistence of a dangerous pathogen.

The vaccination campaign against polio has also been impacted by the COVID-19 pandemic. Standard medical care, including required vaccinations for a range of diseases, has been disrupted, resulting in significant numbers of children failing to be immunized. This has been compounded by the promotion of misinformation by right-wing forces, which has led to vaccine hesitancy. Based on a recent study by UNICEF and the WHO, rates of routine vaccinations fell 5 percentage points between 2019 and 2021.

As with COVID-19 and monkeypox, the failure to eradicate polio, thus permitting the current resurgence, demonstrates that such threats to human health can only be addressed on a global scale. There is no effective national or even regional approach. Only in a socialist society can the required resources be marshaled and deployed at the necessary scale.



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