

cholera in the 2010 outbreak was more representative of the entire Haitian population. The risk factors for infection this time around include poor hygiene, lack of safe drinking water, poverty, and malnutrition. Neighborhoods controlled by gangs have no doubt created formidable barriers to early rehydration, and the closing of some hospitals owing to a lack of fuel has limited the options for treating severely dehydrated patients.

In a second letter, Rubin et al. report data from their phenotypic and genetic examination of isolates collected in 2010 and 2022; the findings show strong similarity between these two sets of isolates. Control isolates from a circulating strain in Bangladesh were found to be distinct from the Haitian isolates. The investigators' findings raise several questions about the resurgence of the same strain after a period without cases: Is the El Tor variant more likely than earlier variants to survive in the brackish waters off Haiti, or more likely to be carried for longer periods by asymptomatic people? What exactly triggered the resurgence? We have no data on population immunity according to age to explain the high proportion of pediatric cases.

Both letters provide insights into a cholera resurgence occurring in a situation of severe social instability, and they are of substantial medical and scientific interest. Moreover, cholera amplified in any community is a threat to communities globally. Even the United States — with its strong medical system, excellent hygiene, and knowledge about rehydration — is at risk for cholera, which could be imported on one of sev-

eral daily nonstop flights from neighboring Haiti. Few U.S. physicians have experience treating cholera, and the children in our poorest neighborhoods might well be vulnerable.

I don't think we should wait for cholera to reach U.S. shores before we commit to strengthening public health structures and processes that would allow us to withstand not just a cholera outbreak but also a variety of other unexpected pandemics. Key initiatives might include working to boost vaccine acceptance in general, developing and implementing plans for minimizing poverty and food insecurity, and enhancing access to medical care. At the same time, we need to invest in partnerships aimed at controlling the sources of pandemics in distant countries in order to minimize global spread. These efforts could include the creation of international teams of first responders that are sanctioned by the WHO, the Centers for Disease Control and Prevention, and various governments and are supplied with adequate quantities of IV fluids, antibiotics, and vaccines.

A key lesson from the ongoing Covid-19 pandemic is that science alone cannot control a pandemic. Leadership is essential: decisions need to be made, trust earned, clear messaging preserved, the means of control succinctly articulated, and the public educated and inspired to act. Timing is critical. Early efforts to trivialize the scope of the Covid pandemic in the United States delayed the urgent steps needed to contain it, and we all suffered the consequences.

Pandemics are a natural part of life on a small planet chal-

lenged by climate change, harmful deforestation, rapid international air travel, the creation of megacities, civil strife and war, and increasing interactions between people and many nonhuman species. It is likely that these individual crises interact in a way that exacerbates their individual effects. The most worrisome outcome would be a polycrisis — with multiple system failures in the realms of energy, international security, finance, and transportation — that overwhelms the available resources that could enable us to cope.² Public health and political leaders, in partnerships with other systems experts, need a renewed social contract that entails unusual cooperation, driven by empathy and social values.

The resurgence of cholera in Haiti is yet another reminder that in our closely connected world, we cannot ignore the infectious misfortunes of other countries and the complex interactions among them. It is in our best interest to engage early, offering assistance and expertise, while reexamining our own public health strengths and shortcomings.

Disclosure forms provided by the author are available at NEJM.org.

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1. World Health Organization. Cholera. March 30, 2022 (<https://www.who.int/news-room/fact-sheets/detail/cholera>).
2. Lawrence M, Janzwood S, Homer-Dixon T. What is a global polycrisis? And how is it different from a systemic risk? Cascade Institute, September 16, 2022 (<https://cascadeinstitute.org/technical-paper/what-is-a-global-polycrisis/>).

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