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Book

Pandemic science and politics

In 2019, the Global Health Security Alliance assessed worldwide adherence to the International Health Regulations (2005), which supposedly commit nations to measures that prevent or control the spread of infectious diseases and mitigate their effects. The study found that no nation was fully prepared, and many countries—rich or poor—fell woefully short. This finding is only one of the many indications that we could have been ready, nationally and globally, to deal with a crisis like COVID-19, but were not. It’s far from clear that the pandemic, once started in Wuhan, China, could ever have been contained. But there are good reasons to think it need never have been catastrophic for both lives and economies.

Most science writers will at some point have written an “it’s not if, it’s when” precautionary piece about global pandemics. Such articles typically appeared in the wake of one of the outbreaks of lethal infectious diseases in the past decades: avian influenza A H5N1, influenza A H1N1 pdm09 (“swine flu”), severe acute respiratory syndrome (SARS), Middle East respiratory syndrome (MERS), Zika virus disease, and Ebola virus disease. Most writers raised the spectre of the 1918–19 influenza pandemic. But few reporters have mined this seam as deeply as Debora MacKenzie, who has reported on infectious diseases for more than three decades. It’s a superb, accessible one-stop shop to bring readers up to date on the science behind this crisis.

MacKenzie sets the context by describing the outbreaks of SARS in China during 2002–03 and MERS in Saudi Arabia in 2012. She examines how the coronavirus that causes COVID-19 is thought to have emerged from bat populations—I was unaware that trade in bats in the Chinese so-called wet markets from where transmission to humans probably started was fuelled not by long-standing traditions but by relatively recent, bogus health claims about wild-animal meat that pander to wealthy urban consumers. MacKenzie explains how the virus infects and harms humans, and what this knowledge means for possible treatments and the prospects for a vaccine.

“It’s one of the tragic facts of this crisis that several of the nations worst hit are those with authoritarian or populist leaders—the USA, Brazil, India, and the UK—and yet there is a real danger that the pandemic could harden support for them, and that some people’s responses will increasingly disregard the medical facts for the sake of tribal allegiance.”

That trade in bats is the big one: MacKenzie makes it plain that a deadly influenza pandemic is almost inevitable before too long. And that’s before we even consider the vast reservoir of pathogenic viruses in animal populations waiting to spill over to humans as we encroach on their fragile ecosystems. The COVID-19 crisis has revealed some of the worst in governance and human behaviour—from denialism and lethal libertarianism in the USA and Brazil to state-sponsored disinformation coming out of Russia and secrecy and censorship in China during the early stages of the outbreak.

Much of that geopolitical context is necessarily beyond the scope of MacKenzie’s book. She does, however, explain the political failures in China as the epidemic began: the silencing of scientists and medical professionals, and the pretence that the disease was not contagious. However unconscionable this was, a more transparent initial approach would probably only have slowed and not contained the spread of the virus. This obfuscation by officials is not unique to China—as past epidemics have shown—and the abject failure of some governments to protect their citizens cannot be blamed on other countries, although this does not, of course, stop them trying. “For weeks”, MacKenzie writes, “the world, especially the rich West, seemed locked in a slow-motion train wreck, as though countries could not believe the oncoming storm was going to reach them.”

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Few will come out of this crisis with reputations intact. WHO has deserved some criticism for its early response; it seemed reluctant to brand COVID-19 a Public Health Emergency of International Concern for fear of being seen as alarmist, or indeed causing alarm, and its tolerance of China’s obfuscation. But mostly WHO did what it could, issuing important scientific and public health advice and recommendations and helping to provide personal protective equipment and tests to low-income countries. And it could not interrogate the situation in China until invited to do so. WHO is an easy target, and is perpetually vulnerable to abuses or obstruction from member states: to be more effective, it needs more authority and more resources. MacKenzie wisely calls for more internationally binding treaties on infectious disease, as we have for nuclear weapons and ozone-depleting chemicals.

The US National Academy of Medicine warned in 2016 that “the underlying rate of emergence of infectious diseases appears to be increasing”. In recognising then that there is more to come, the challenge is to find a middle path between rose-tinted and gloom-laden views—much as it is, I would argue, for the deepening climate crisis. MacKenzie pulls no punches about the dangers. Dreadful though it has been, the COVID-19 pandemic could have been worse. There’s no law that says a virus this contagious could not be more lethal; the disease could have been caused by a less familiar type of virus (SARS has helped to create some existing understanding of coronaviruses that could speed up development of a vaccine); and many countries have managed the crisis fairly well. But she explodes the complacent view that viruses will get milder as they spread—there’s no reason why the opposite could not be true—and mutation to more virulent forms might be encouraged by “leaky” vaccines that do not confer full immunity on all who take them. Besides, these terrible events won’t in any way exempt us from the next serious influenza pandemic, and even a usual winter influenza season could be much worse with COVID-19 still circulating. A worst-case scenario is that complex feedbacks in human society—mass unemployment, economic crashes, depletion of the work force, and disruption of production and supply for food, energy, and medicines—could threaten to rend the entire social fabric. It wouldn’t be the first time that a disease will have brought civilisation to its knees.

But there are opportunities to avoid the worst, and the COVID-19 pandemic is an urgent wake-up call. There can be no excuses now for a lack of national transparency when new diseases emerge, or for a failure to better prepare health and social care systems in advance of that. There is no doubt about the need for global surveillance systems, for preparedness plans for quarantine and contact tracing, more investment in virology and in capacity for distributed, large-scale vaccine and antiviral production, and for making our health, social care, and socioeconomic systems more robust.

The biggest problems, though, are political. It’s not just a question of whether nations will support the science and infrastructure building and will accede to more international oversight. Nor is it only a matter of whether we will act on the social inequalities that the pandemic has ruthlessly exposed and exacerbated—evident, for example, in the way low-income workers have often faced the greatest risks, and in the fact that recurrent outbreaks now seem most likely in deprived areas. It’s one of the tragic facts of this crisis that several of the nations worst hit are those with authoritarian or populist leaders—the USA, Brazil, India, and the UK—and yet there is a real danger that the pandemic could harden support for them, and that some people’s responses will increasingly disregard the medical facts for the sake of tribal allegiance. It is to MacKenzie’s great credit that, in a book primarily focused on the science of COVID-19, she acknowledges that these issues, as much as efforts to find health and medical solutions, will determine how we fare when the next pandemic arrives.