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COMING IN DECEMBER
The Middle East

IRAQ HAS CHANGED in many ways since the US-led invasion toppled Saddam Hussein almost twenty years ago, but its democracy remains flawed at best, and its sovereignty is still severely compromised. In Yemen, embroiled in war for seven years and counting, unaccountable forces seek to reanimate the failed state. And on the Turkish border, Syrians have found sanctuary from their own country's protracted conflict, but their welcome is increasingly tenuous. In a region enduring such turmoil, global inflation and wheat shortages threaten to disrupt provision of one necessity for which people can still rely on their governments: subsidized bread. The December issue of *Current History* will cover these developments and more across the region. Topics scheduled to appear include:

- **The Emergence of the 'New Iraq'**
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- **Yemen's Ghostly Politics**
  Kamilia Al-Eriani, University of Melbourne
- **Syrian Refugees in a Turkish Borderland**
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- **Egyptian Universities Under Stress**
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- **Mirages of Middle Eastern Tourism**
  Waleed Hazbun, University of Alabama
- **Bread and the State in Jordan**
  Anny Gaul, University of Maryland

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"To do better with the next pandemic, as well as with persistent health inequalities, requires facing up to and learning from the profound ethical shortcomings of the various national and global responses to the COVID-19 pandemic."

Ethics and Global Health Emergencies

SRIDHAR VENKATAPURAM

In September 2021, United Nations Secretary General António Guterres stood before world leaders gathered for the UN General Assembly in New York City. Describing the state of the world 21 months into the COVID-19 pandemic, he noted that a majority of people in the wealthier world were already vaccinated, while over 90 percent of Africans were still waiting for their first dose. "This is a moral indictment of the state of our world," he stated emphatically. "It is an obscenity. We passed the science test. But we are getting an F in ethics."

Guterres's rebuke trenchantly captures the remarkable distancing between science and ethics, particularly the concern for equity, in the global response to the pandemic. At the same time, the secretary general's use of "we" was likely jarring to many in the audience. It implied that all the world leaders at the gathering had a meaningful role in producing, and thus were partly responsible for, this morally deplorable state of world affairs.

In contrast to this suggestion of collective responsibility, a few months earlier, in May 2021, South African President Cyril Ramaphosa described the unfolding situation as "vaccine apartheid." He revived not-too-distant memories of apartheid in South Africa, as well as a world segregated along racial lines, an architecture of world order enforcing white supremacy and structural domination of everyone else—in other words, the era of colonialism and imperialism. Ramaphosa's fierce language also gave voice to growing alarm and frustration at the disconnect between the rhetoric of global solidarity and cooperation coming from various leaders of the world's richest countries and international organizations, and the reality that the same wealthiest countries were hoarding the extant and future global supply of COVID vaccines. Moreover, people were dying in the rest of the world because of limited supplies of tests, personal protective equipment (PPE), medical treatments, and basic medical supplies such as oxygen.

Dishonesty, unbridled self-interest, hypocrisy, mistrust, racism, neglect, marginalization, and inequity are emblematic of immoral relationships and institutions. However, for some theorists and practitioners of international relations, morality has little purchase when it comes to the protection of national security or pursuit of national self-interest in a global arena of competition and conflict. Even some political philosophers whose egalitarian theories of social justice start from the foundation of the moral equality of persons cease their moral reasoning at their national borders.

Such thinkers conceive of social justice as a system of principles or rules for distributing the benefits and burdens of social cooperation. Given that the world contains diverse societies with fundamentally incommensurate moral values, over which horrendous wars have been fought through the ages, the eminent philosopher John Rawls proposed that we would do well to begin by theorizing the demands of social justice within our own society first, imagining that it is the only one in the world.

The long-standing school of realism in international relations, and mainstream philosophers' uncertainty or skepticism about moral relations with societies that are disconnected and fundamentally different from "us," can go a long way toward explaining the continuing global

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devastation that the pandemic and responses to it have caused. But what is confounding is that nations and the world order are in disarray because of a global health emergency. Global health—as an academic discipline, a conglomeration of health institutions, and a field of practice—was seen just a few years ago as a beacon of international cooperation, multilateralism, and public–private innovation, clearly expressing the ethics of beneficence and global equity. No society was too remote or too different to be outside the scope of global health research and practice. Whatever moral and cultural differences may exist between societies, most individuals and all societies value good health.

Spending on development assistance for health programs—mainly, funds going from rich to low- and middle-income countries—grew from $8 billion per year in 1990 to $40 billion in 2019, according to the Institute of Health Metrics. The growing scale, reach, and positive impact of global health over those three decades led to its being seen as a plausible model or cornerstone for building further global cooperation in other domains, such as trade, regulation of illicit financial flows, climate change negotiations, and migration. Global health leaders were increasingly part of elite discussions among presidents, corporate chief executives, and billionaire philanthropists.

Ethics has been relegated to a role of supporting science.

This may partly explain why a handful of men leading prominent global health organizations believed that they could design, mobilize support for, and deliver a single, coordinated global response to the COVID-19 pandemic, namely by creating and running the Access to COVID-19 Tools Accelerator (ACT-A). Established in April 2020, the ACT-A initially had three pillars: financing and delivering diagnostics, treatments, and vaccines, respectively. The vaccine pillar, known as COVAX, was the best known of the three.

The aim of COVAX was to rapidly invest in research and development for new vaccines, negotiate prices, and deliver them to all countries. Countries that initially put in money would get priority access and larger amounts than countries that did not. That was the balance between science and equity.

Starting in early 2020, the originators of COVAX sought to galvanize global funding for the ACT-A pillars, and create legitimacy for the new entity, by involving international organizations such the World Health Organization (WHO) and UNICEF and obtaining the political sponsorship of powerful nations such as France, Germany, and the United Kingdom, as well as the European Union. (The United States was a nonstarter because President Donald Trump had shown his aversion to global cooperation and international organizations and his willingness to break global norms. Russia and China also did not participate in the ACT-A.)

Yet the leaders of the world's richest countries, while mostly stating their support for ACT-A, were independently financing vaccines for their own populations and purchasing them directly from pharmaceutical companies. Rather than being the single source for COVID vaccines for the entire world, as its founders had envisioned, COVAX became just another buyer standing in line—and even then it was a latecomer, with only funding pledges in its wallet.

As Ramaphosa highlighted in early 2021, the richest countries had signed purchase orders for extant and future supplies of diverse kinds of COVID vaccines, and in amounts many times more than their own citizens would need, even accounting for multiple doses. This was a textbook example of hoarding as well as realist international relations. Now, three years into the pandemic, ACT-A is a shell and is likely to be dismantled soon.

The way a few rich countries subverted COVAX and hoarded global vaccine supplies played a big part in the global devastation that is still underway and that has fundamentally shaken up the world order, but this was not the only significant cause. The current global total of COVID-19 deaths is estimated to be around 6.4 million, while excess mortality due to the pandemic is around 23 million, according to the *Economist*. That means close to 23 million people have died over the past three years who would otherwise be alive if not for the SARS-COV-2 virus as well as the effects of national and global responses and neglect.

The distinction between direct mortality and excess mortality is important. Whereas vaccine procurement efforts sought to prevent COVID morbidity and mortality, other social policy choices and neglect at the local, national, regional, and global levels have produced indirect mortality that continues to accumulate, with consequences in multiple dimensions of individual and social

well-being that will be felt for generations. The current direct death toll might have been lower with vaccines more widely available and better infection control policies and medical care, but that is only part of a set of big questions: How might the number of excess deaths and the many more people suffering long-term disease and disability and other devastating harms have been lower? And how can we contain those consequences and help people recover from them going forward?

TWO NARRATIVES

Two competing narratives, or perhaps paradigms, may help make sense of this pandemic and the mind-boggling totals of lives lost and harms inflicted so far. The first is a story about how a new virus appears and begins to multiply, causing death and devastation. Biological science and finance are the main protagonists in the response, working together under the immense pressure of daily mounting deaths and motivated by the noble purpose of saving lives. Contending with immense scientific uncertainty, they emerge with a silver bullet—a new kind of vaccine—to slay the virus. Ethics and equity enter the picture after this discovery, once it is realistic to think about how fairly the silver bullet should be distributed. This heroic narrative plays out not only during sudden health crises, but also during normal times. A particular kind of ethics is expressed in the selection of which health care is provided to whom in order to have the greatest impact on disease burden.

An alternative view rejects this narrative that frames a novel virus's emergence as a sudden and natural or biological event. Instead, the second perspective identifies social choices and neglect as factors in the emergence of a novel virus in a particular locale, and in why and how it spreads within and across countries. In addition to pointing out the social causes of the differential spread across individuals and populations, this narrative also considers the diverse impacts of both extant and potential social responses to containing the virus and its harms. The role of ethics in this second perspective, tracking social choices and neglect, is prominent and thoroughgoing.

Ethics is often described as answering the question of how we ought to live. Thus it discerns goodness or badness, rightness or wrongness, in the individual and collective human actions that produced the conditions from which the virus emerged, in the pathways by which it spread across and within countries, and in the social responses it has elicited from the local to the global level. The role of ethics, in this second narrative, is not limited to deliberating on how we ought to distribute the silver bullet, or ensuring that the scientific research that produces the silver bullet is conducted according to established bioethical principles. Ethics is intertwined with the emergence and pathways of causes, disease levels, distribution patterns, differential experiences, varied consequences, and possible social responses. This is what is meant when health equity is described as multidimensional. And health equity is not just applicable to emergencies—it is also applicable to human health during normal times.

The first narrative—focused on science, finance, and silver bullets, with equity as a late-stage consideration—has dominated national and global responses to the COVID-19 pandemic. The primary equity concerns have focused on the distribution and manufacturing rights to vaccines once they are developed. This approach was visible at the first WHO R&D Blueprint meeting, in February 2020, intended to coordinate a global research agenda for COVID-19, where ethics was given a supporting role—assisting scientists to do research ethically, rather than to begin preparing to address all the ethical dimensions of the crisis. The first time ethics was raised in public discourse during the pandemic was in debates over principles for allocating emergency room beds and ventilators in rich countries.

The fair distribution of lifesaving health care goods and services, and the conduct of scientific research, are indeed weighty ethical issues. Yet there were, and still are, far more numerous ethical issues at stake than these. Some are even more significant, such as issues related to social equity and justice—particularly the roles played by social choices (including political choices) and neglect. Sporadic debates that arose during the lockdowns, framing these policy decisions as pitting the economy against public health, individual liberties against public health, or the lives of the young against those of the old, show how inadequate it is to assume that the primary role of ethics in a national or global health emergency is to assist in distributing lifesaving goods or upholding certain principles in doing research.

If the ethical dimensions of these issues are tethered to social actions and neglect, from causes to consequences and possible responses, the social dimensions need to be widely recognized and

acknowledged. To put it another way, a random event or natural disaster has no morals. A large tree branch that falls and hurts a child is neither morally good nor bad, nor does it have moral rights and duties. But depending on who the child is and where the event occurs, that child may have a claim to assistance—and there may be moral duties on others to provide that assistance. However, unlike a falling branch, socially created crises do have ethical properties. If we—whether we are leaders, experts, or just citizens or inhabitants of planet Earth—have created a crisis through our actions or neglect, we are morally responsible for the resulting harms and have diverse obligations to correct or mitigate those harms.

Given such profound ethical implications of recognizing the role of social choices and neglect, it may be understandable that politicians, experts, and leaders of nations and international organizations would prefer the first narrative of pandemics as a matter of natural events, heroic science, and silver bullets. It may be that such individuals are not just unwilling, but even unable to recognize the thoroughgoing social dimensions of health emergencies, as well as endemic health inequalities, because the consequent ethical implications would require dramatic reforms and would directly threaten the social, political, economic, and perhaps even racial architecture that sustains their position, power, and interests. But scientists have a lot of agency in determining whether they uphold the heroic narrative that obfuscates the social dimensions and ethical implications of the causation, distribution, and consequences of disease and death—as well as possible responses.

SOCIAL INEQUALITY AND SCIENCE

It has by now become commonplace to hear that the COVID pandemic has revealed and exacerbated preexisting inequalities, from the local to the global level. Despite the political rhetoric and the initial panic driven by simplistic mathematical modeling of the coronavirus's spread and mortality, not all individuals or population groups are equally exposed to health risks or vulnerable in the same way, have the same experience of disease or medical care, or face the same nonhealth consequences. This also holds true during normal times. Diversity in individual biology and in how individuals are socially situated directly determines the inequalities in people's abilities to protect themselves and mitigate the harms and other consequences of disease, if they survive.

Such patterns of unequal abilities to protect health, often reflected in disease distribution patterns across individuals and groups, are measurable, accessible, and widely known in both scientific and policy circles. In the United Kingdom, Michael Marmot and colleagues stated in their 2020 report, *Build Back Fairer: The COVID-19 Marmot Review*, that the UK's COVID mortality distribution patterns were utterly predictable, tracking existing population health inequalities. In the United States, health capability distributions, or health "disparities" as they are called, are tracked by race as well as by state, county, and even postal code. Underneath the aggregate number of roughly 1 million deaths due to COVID in the United States, the distribution patterns follow preexisting patterns of disease and health capabilities. Excess mortality in the United States is also likely to follow the same patterns, as are long-term disabilities and the harms to other dimensions of well-being.

Biomedical interventions are only part of the solution.

In contrast, in many low- and middle-income countries, health data is patchy or lags behind because of weak infrastructure. Nevertheless, there is some understanding of the levels of population health and distribution patterns, and the diverse social conditions that constrain the abilities of certain groups to protect their health.

Despite the availability of such knowledge about inequalities in health capabilities—and previously documented findings about how this has played out in pandemics like HIV and epidemics like Ebola, Zika, tuberculosis, and malaria—when the COVID-19 pandemic began, many nations, starting with China, took a fairly simple biomedical perspective focused on the virus and generic biological bodies. That is, every human body was considered to be equally vulnerable to exposure, infection, and death. The Chinese government's implementation of lockdowns in cities with millions of inhabitants was unprecedented in terms of scale, but it was also based on scientifically unproven assumptions.

Historically, infectious disease outbreaks have been dealt with through a "contain and control" approach. Those who are infected or thought to be infected are separated from the uninfected to

contain the spread of the virus. In a small, localized outbreak, this can be an effective, efficient approach since it involves relatively few people. But as infections spread across people, time, and geography, the cause of contagion is no longer just the harmful organism. Human behaviors, shaped by social factors—cultural, legal, economic, political—start to influence the course of the outbreak. It becomes more necessary to identify how human diversity and social forces (from local to global scales) are affecting the spread and population distribution of infections, and then integrate that evolving knowledge into the containment response. An effective response entails addressing both the biological and social factors driving the spread of infections, and it requires social cooperation, since infections spread from one person to another within societies and across national borders.

China's approach of locking down large cities well after infections were spreading widely reflects an absolute denial of the importance of human diversity and of social factors affecting the behaviors driving the spread. Officials thought that what could be done to a few individuals in a small outbreak could be done to millions of people, simply scaled up to apply to entire populations, with the same results. This reasoning is where the biomedical perspective fails profoundly. Though the quarantines may have curtailed infections to some extent, they also spread infections outward to other countries as hundreds, perhaps thousands, of infected people fled China to escape lockdowns, quarantines, or other restrictions.

The initial China lockdowns, the early disease dynamics modeling that gave no consideration to inequality in risk or abilities, and the WHO's "test-trace-isolate" mantra all focused narrowly on the biology of the virus and individual human bodies. This contributed to the rapid lockdowns of entire countries across the world. They were all, like China, scaling up the contain-and-control approach to entire populations, a strategy that had no precedent and was scientifically unproven.

This approach also contributed to the focus on individual-level biomedical interventions, notably vaccines, and other commodities such as tests, masks, other PPE, and medical treatments. These biomedical interventions have been hugely important in addressing the pandemic, but they are only part of the solution. Richer analyses of human diversity and social drivers of the local and global spread of infections, and good modeling of social distribution patterns, could have informed much better lockdown policies and highlighted the importance of social cooperation. In particular, rather than largely focusing on policies protecting the average healthy citizen, governments could have been compelled to pay much more attention to protecting the most vulnerable—older people, those who have biological or psychological impairments, and socially excluded groups.

To put it another way, had some of the earliest affected countries known that infections would largely lead to the deaths of older people, minority groups, and others who were biologically and socially vulnerable, would they have implemented the lockdowns? Or implemented them in the way they did? The types of scientific knowledge that were called on early in the pandemic, within countries and in international organizations, and the attention given to the social dimensions versus the biomedical approach, have resulted in stark differences in the pandemic's impacts in different societies. Too many failed to incorporate ethics and equity in planning and implementing pandemic responses, contributing to over 23 million deaths so far.

BIOETHICS AND BEYOND

In light of the enormous role of social actions and neglect in the pandemic, and the profound ethical issues intertwined with them, one might have expected ethicists to have been greatly involved in the responses at the national or global levels. But the dominant perspective within and across nations, including international organizations, relegates ethics to a role of supporting science and late-stage consideration of how to distribute science's products.

Take, for example, the formation and ongoing operations of ACT-A and COVAX. Starting in early 2020, each ACT-A pillar was led by two organizations, while diverse experts, government officials, and community service organizations worldwide were called upon to contribute to its work. In frequent conference calls, various aspects of the initiative were discussed, including financing, effectiveness, and operations. Yet no trained ethicists have been directly involved over the past three years.

From the start, however, it was recognized that there was a need for ethicists to consider the distribution principles COVAX should use for vaccines, if and when they appeared. Since demand would greatly outstrip supply, some reasoned that

ethical principles were needed for "vaccine allocation." At one point, it seemed that a group within the WHO, called the Strategic Advisory Group of Experts on Immunization (SAGE), had been given responsibility for developing an ethical framework for COVAX. A SAGE Working Group on COVID-19 vaccination was formed—it included one or two bioethicists, but mostly comprised vaccine experts. They produced a document that presented allocation principles to be used across and within countries.

Nevertheless, the actual principle that was used by COVAX—that every country initially would receive vaccine doses to cover 20 percent of its population size, over time, in tranches—was reportedly developed by a management consultant working for the Global Vaccine Alliance (GAVI). The reasoning apparently was based on an estimate that around 20 percent of all national populations are health care workers. Since these workers were essential to managing COVID-19 patients and holding health care systems together, each country would initially get enough vaccines to cover them. But it was left up to governments to choose whether to vaccinate health care workers first.

In early 2020–21, it was surprising that ACT-A engaged so minimally even with bioethicists, even though it was steered by health organizations. More troubling has been the marginalization and lack of consideration of the broader ethical issues intertwined with the multiple dimensions of the pandemic. This has been evident not only on ACT-A's part but everywhere.

The spread of deadly infections makes visible the current interconnectedness of all human beings on this planet. Despite long-standing awareness, debates, and experiences of globalizing trends, globalization was largely understood as a phenomenon of trade and finance, or perhaps a clash of cultures. But a virus passed from person to person across borders makes globalization tangible. Every person's vulnerability as a result of being interconnected is immediately palpable. Global interconnectedness helps transmit direct and deadly harms alongside many of the good things it brings, such as faster travel, freer exchange of ideas, and greater economic prosperity and poverty alleviation.

A related but distinct aspect of the pandemic is how it has made visible the interdependency of societies. This should give pause to the realist school of international relations. It also poses a challenge for many Anglo-American global ethics and justice philosophers, who until now have viewed the world as a group of distinct, self-contained entities, and have focused largely on the possible extension of rights and obligations across national borders, particularly between rich and poor countries. To simplify, many of these thinkers have focused on the question: What do we owe to distant strangers, particularly the poorest? That was a narrow question and the wrong one to ask.

The COVID-19 pandemic challenges this initial framing of the main problem in global ethics in a few ways. The pandemic has emphatically shown that all persons on this planet are interconnected across borders—and through those interconnections, we are made vulnerable to grievous harms and death. Moreover, it is likely that we have also passed on harms to other people in other countries. By not quickly shutting down major international airports, for example, wealthy countries—which have considered themselves benevolent actors in global ethics—likely enabled the rapid spread of the virus to other countries, particularly low-income countries that have suffered enormously as a result.

The pandemic has made visible the interdependency of societies.

Beyond receiving and transmitting harms, it is fairly well evident from the basic epidemiology of the pandemic that no single country, or even group of countries, can contain the pandemic by itself. No country can control the virus within its own borders and remain protected unless all other countries also control the spread within their own borders. Interconnectedness and interdependency make global coordinated action necessary to contain the pandemic everywhere. And this requires not just the cooperation of a few governments; all countries must cooperate in order to protect every country for as long as necessary. Notions of benevolence or even humanitarianism are not the appropriate ethical resources to draw on in this situation.

The necessity for, and benefits of, cooperative action at a global level have previously been identified in the context of many other global issues, such as climate change, nuclear proliferation, and the illicit drug trade. But the distinctiveness of this pandemic is that along with making more prominent the interconnectedness and interdependency

of all human beings, it produces a sense of urgency due to the imminent threat to bodily health, possibly leading to a quick death for millions of people. Social interactions within and across borders will be even more necessary for societies to recover from the economic and social devastation.

It is the recognition of jointly living on this planet, and of having intertwined destinies, that compels us to ask: How should we live together? This is the mainstay of the philosophy of social and global justice, particular theories of social contract, and distributive justice. It may not matter if other societies have different moral values; we can grievously harm each other, we have done so, and we continue to do so to varying degrees. The role of ethics and ethicists in this shifting global order is to provide moral guidance for the political processes and structures that distribute benefits and burdens across societies. Their role cannot simply involve identifying how to distribute health care or conduct scientific research. And, unlike human rights law, which has historically focused on the relationship between governments and their citizens, the scope of ethics can encompass a whole range of diverse actors that operate at the transnational global level.

Ethics is the right register from which to address issues regarding the world order and the place of health within it. The dominant narrative of heroic science and finance joining up to save humanity may produce valuable goods, but it also enables and sustains immoral relationships within and across societies. Starting with the question of how all societies should live together in interconnectedness and interdependency allows all to more honestly identify social factors and neglect in the causation and distribution of harms, including infectious diseases.

To do better with the next pandemic, as well as with persistent health inequalities, requires facing up to and learning from the profound ethical shortcomings of the various national and global responses to the COVID-19 pandemic. The deaths of 23 million people, and the untold suffering of millions more, demand that we get the ethics right as much as we try to get the science right. ■

"Although the pandemic will not mark the end of cities, it nevertheless marks an inflection point in urban life."

COVID-19 and the Future of Urban Policy and Planning

SHAUNA BRAIL

On March 23, 2020, the city of Toronto declared a state of emergency as the COVID-19 pandemic precipitated sudden and dramatic changes in urban life around the world. Initially, the city became eerily quiet. Public transit ridership fell by nearly 90 percent. Office occupancy in the downtown core fell even further, as those who could work from home were required to do so. Restaurants were closed for indoor and outdoor dining and open only for takeout. Schools from the nursery to the graduate level moved to online learning.

As the virus spread and mutated, it was clear that the most negative impacts were being experienced by the most vulnerable: low-income and racialized households living in crowded conditions; workers in sectors where in-person work is a necessity, such as health care and manufacturing; and people living in congregate settings, including nursing homes and homeless shelters. The city government—along with its counterparts at the provincial and national levels—adapted by introducing a range of policy, planning, and program interventions to address public health needs and provide support to manage the otherwise devastating economic and social effects of public health policies such as business closures. The city's state of emergency lasted for 777 days, until May 9, 2022. In many ways, Toronto's experience has been typical of cities around the world during the pandemic.

THE END OF CITIES?

At the onset of the pandemic, various pundits predicted that COVID-19 would mark the end of cities as we knew them. In spring and summer 2020, news headlines in the *Guardian*, the *Wall Street Journal*, the *Washington Post*, and more heralded the end of big cities. In the spring of 2021, urban scholar Joel Kotkin wrote in an *American Affairs* essay that a new urban order was likely to emerge, predicting that the urban core could lose its dominance due to continued population dispersal alongside reduced emphasis on mass transit.

In one rebuttal to such predictions, comedian Jerry Seinfeld contributed an August 2020 *New York Times* opinion piece titled "So You Think New York Is 'Dead' (It's Not)." Seinfeld suggested that at the heart of New York's City's greatness is an energy that comes from the people who live there, and although the city will change, its allure is certain to persist. In a similar vein, urban sociologist Sharon Zukin wrote about New York's "special mantra," reminding readers that the city has both an extensive history of surviving disasters and experience with rebuilding.

The death of cities has been predicted many times before. Previous pandemics, including the 1918 Spanish Flu, threatened but ultimately did not dampen the vibrancy of cities. Deep concerns over the future of cities arose as the adoption of private automobiles began to take hold in the 1920s; Henry Ford suggested that the "city is doomed." In the post–World War II era, city-regions grew and spread across North America, with the construction of highways connecting newly built enclaves of suburban family housing. Many central cities, like Chicago, experienced years of declining population while their suburbs grew, but these cities did not die.

As high-speed Internet service proliferated beginning in the early 2000s, the premise that the rise of telework might lead to the decline of the office and the central business district was paraded

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about in service of revived theories about the death of urban life. Yet as Michael Storper and Michael Manville wrote in a 2006 article in the journal *Urban Studies*, "Nowhere, even in America, did dense urban life come to an end; distance never died and the world never became a flat suburbanized plane."

In March 2020, when so many of the world's cities seemed to come to a standstill, as workplaces shuttered and streets went silent, the question arose yet again: Will COVID-19 mark the end of cities? The answer is a resounding "No." An examination of a range of recovery metrics, from reductions in unemployment rates to increases in spending at brick-and-mortar retail locations, shows ongoing improvement.

At the same time, signals still point to ongoing challenges. A study led by urban planning scholar Karen Chapple found that downtowns in the largest North American cities are struggling to recover to pre-pandemic levels of activity; as of May 2022, places where lockdowns lasted longest and where workers rely most on public transit to get to their jobs continued to face the greatest hurdles to recovery.

As the pandemic has worn on (and on) over the course of more than two years, it is obvious that while cities will continue to be key centers of concentration for people, ideas, capital, and the movement of goods, they are also on the cusp of change. And we still do not know for certain which changes are temporary, and which will be permanent.

Although the pandemic will not mark the end of cities, it nevertheless marks an inflection point in urban life. The long-term impacts of COVID-19 on cities are certain to be complicated and nuanced, reflecting the complex nature of cities—and the wide and varied networks that they are part of.

GOODBYE, CENTRAL BUSINESS DISTRICT?

To be sure, there are elements of urban change associated with COVID-19 that are markedly different from the past. Two metrics in particular illustrate the potential for enduring change: the continued rise of remote work, and the accompanying sharp reductions in public transit ridership. These two metrics stand out in 2022 as remaining lower than pre-pandemic levels, whereas others, such as employment, rents, and retail spending, have largely recovered. If left unaddressed, the trends in remote work and transit use will have substantial negative effects on the future of cities.

Toronto-based commercial real estate firm Avison Young's Vitality Index measures the return of workers to downtowns across North America's 24 largest cities (using March 2, 2020, as a baseline), highlighting the proportion of workers returning to offices by city and by industry. By the week of May 23, 2022, in every city on the index, nearly one-third or more of office workers had not returned to offices on a daily basis. In Austin, Texas, approximately 4 out of every 10 downtown office workers had not returned; in New York and Boston, it was more than 5 of every 10; and in Miami, nearly 8 out of 10. A similar index published by workplace security firm Kastle Systems indicates that in ten benchmark US cities, 44 percent of regular office activity had resumed by June 2022.

Questions of whether, and to what extent, office workers will return to in-person office work present a range of policy challenges for cities. One of the most significant of these relates to the future sustainability of the central business district (CBD), a term that refers to the concentration of office activities in a city's core. Older cities that grew to prominence as centers that coordinated markets and industrial activity typically had a core office zone.

Will the rise of remote work change the nature of the downtown environment?

In the late 1800s and early 1900s, sociologists based at the University of Chicago conducted a range of studies examining the ways cities grew in the industrial era, noting the location, role, and form of the central business district around which the rest of the city was typically structured. The concept of concentrating key office activities in an urban core continues to influence contemporary plans for cities. Yet the pandemic may prove to be the final straw that disrupts the role of the CBD.

Cities are dynamic, and in recent times they have experienced difficult, transformative shifts. One such transition is the move away from an urban economy focused primarily on manufacturing and other industrial production, and toward a knowledge-based economy. The loss of manufacturing employment in cities connected to globalization and technological change precipitated years of high unemployment in some places and sectors. In the United States, cities in the Rust Belt—an area once characterized by a high reliance on manufacturing

employment—suffered as a result of the loss of such jobs in the second half of the twentieth century. For some places, longing for a revival of the industrial past stalled efforts to transition to post-industrial activities.

Once noxious industrial activities had left cities, however, opportunities arose for rebirth. Waterfronts were reoriented from serving industry to serving people. Abandoned and underutilized factory spaces became desirable sites for creative and cultural activities, for new industries like digital media, and sometimes for altogether new uses, including loft-style housing. Cities transformed spaces of production into spaces of consumption—examples include Toronto's Distillery District and New York City's Meatpacking District.

Some suggest that the current rise of remote work will change the role of the CBD forever, similar to the way that the loss of factory jobs changed the urban landscape in the past. My University of Toronto colleague Richard Florida calls CBDs places where people are "packed and stacked" for the purpose of work, a last stand of the industrial age that will become a fatality of the pandemic. Though evidence on pandemic recovery in cities remains tentative, it is not premature to consider the policy implications of massive shifts in the location of work and the role of the CBD as the city's centrifugal force.

The pandemic has led to renewed focus on the role of neighborhoods.

What makes this potential transition even more challenging is the fact that the CBD is not solely the location of concentrated employment in sectors such as legal, accounting, and financial services, media and communications, management consulting, tech firms, and more. The concentration of a sizable proportion of a city's workforce in a central area is also served by massive investments in infrastructure, such as subway systems. The multibillion-dollar public investments needed to support transit systems, especially subways, typically rely on ridership revenues. If current trends continue and office work takes a radically different form in the post-pandemic period, or if ridership drops off by 20 to 30 percent a few days a week, entire transit systems could be thrown out of balance—a balance that was precarious even before the pandemic.

Uncertainty regarding how and whether a larger-scale return to work will unfold is already putting pressure on infrastructure planning for the future. In New York City, there are questions about whether it still makes sense to invest tens of billions of dollars in a major project to add another rail tunnel under the Hudson River.

Similarly, a new subway line that opened in London in the spring of 2022 added 10 new stations in the center of the city, at a cost of 19 billion pounds. Like many expensive and complex infrastructure projects, the Elizabeth line, initially conceived in the 1980s, took decades to move from concept to completion. Construction took 13 years and experienced significant pandemic-related delays. When the line finally opened, some questioned whether commuting patterns still warranted urban transit investments of this magnitude.

Transit systems are not the only services that were designed for cities with concentrations of jobs and people in the city center. As office employment clustered in downtown areas, so, too, did restaurants, dry cleaners, gyms, and other ancillary services that rely on foot traffic. These businesses and services employ chefs, servers, hair stylists, cashiers, cleaners, and other staff. Remote work is not an option for those who work in a kitchen or a hair salon. These businesses and workers suffered heavy income losses during successive waves of the pandemic and work-from-home mandates.

With their concentrations of office towers, CBDs also represent a valuable source of property tax revenue for municipal governments. In some cities, special charges paid by property developers help pay for amenities and infrastructure including public art, parks, and affordable housing. In 2021, San Francisco lost $400 million in tax revenue as a result of shifts in office occupancy and work. Reductions in property values and development activity will have severe repercussions for municipal finances.

Another justification for investment in the vibrancy of city centers is that dilapidated cities and urban spaces are very difficult to revive. As Jane Jacobs highlighted in her 1961 classic *The Death and Life of Great American Cities*, having concentrations of people who pay attention to and care about what's happening on the street is crucial for urban vitality. As they reevaluate approaches to recovery in the downtown core, cities will benefit from considering how to ensure that there are more "eyes on the street," in Jacobs' words.

Iconic buildings and thriving business districts also contribute to a city's image and brand. This helps promote economic development and attract businesses to cities and city-regions. Recognizable city skylines are part and parcel of the attraction of place. If left unaddressed, declining activity in business districts stemming from pandemic-induced disruptions could ultimately lead to a cycle of disinvestment, reducing even the appeal of iconic skylines.

REORGANIZING DOWNTOWNS

If the CBD as we know it is indeed in the process of becoming a relic of the industrial age—or if, more likely, it no longer represents a place to which office workers travel daily for the purpose of work—this does not have to equate with the demise of downtowns. But to manage uncertainty in light of the potential for transformation of the CBD and the city more broadly, proactive policy and planning are needed.

First, even if the role of the CBD as a place of office work appears destined to shift—though the degree of this shift continues to be uncertain—the importance of concentration will not necessarily decline. Firms will still be anchored in space; businesses and people will continue to be drawn to the urban core. Downtowns will survive these shifts by remaining hubs of cultural opportunities, central points for transit accessibility, and places where people want to gather, work, live, and meet.

For downtowns to meet the challenge of staying attractive, governments, firms, and other organizations will have to provide compelling reasons for people to still be tethered to cities. Despite the potential for remote work, in-person activities will continue to matter for most employers, at least some of the time. As of this writing, Big Five tech firms such as Amazon and Google are making efforts to encourage many workers to return to the office at least three days a week. Airbnb has embraced a work remotely "forever" stance. In announcing details of the plan in April 2022, however, the firm indicated that employees should be prepared for quarterly, weeklong, in-person meetings.

Observers should be asking questions about the meaning of "forever" in the language of corporations. It is too soon to confirm whether forever means for a year, a decade, the lifespan of a company, or something else. Employers that pay attention to the ongoing connections between increases in remote work and labor productivity, innovation, training and talent attraction, team-building, culture, and communication are likely to shift their policies as conditions change.

With potentially fewer people working downtown on a daily basis, city planners will have to consider how to preserve downtown employment space while improving quality-of-life features in downtowns. As they pursue pandemic recovery, cities may find they need to upgrade CBDs with the addition of urban neighborhood-style amenities, such as pedestrian-oriented streetscapes. Within office buildings, greater attention is being paid to what's referred to as the "amenitized office," one that includes spaces for socializing, exercising, and relaxing. Evidence on office occupancy rates shows that buildings featuring such extensive amenities draw higher demand relative to other buildings.

Retrofitting buildings is another tactic that may help to usher in a new era for the CBD. This might mean converting office buildings to housing, an expensive but not unheard-of approach that has been proposed as a means of tethering people to downtowns while addressing housing supply and affordability issues in cities.

Downtowns, of course, are more than just offices; they are frequently centers of government, hospitals and universities, sports stadiums and theaters. Even with fewer office workers coming in every day, they will continue to be places where people gather to carry out the business of government, to conduct innovative research and treat patients, and to train the next generation of physicians, scientists, designers, policymakers, and more.

Even as many office workers have been reluctant to return to in-person work, cities have continued to thrive during the pandemic as places to celebrate and to protest. Although a city cannot survive on festivals and parades alone, the fact that these activities continue to bring large numbers of people to downtowns, often by transit, provides a spark of relief. For instance, in June 2022, the Bay Area Rapid Transit agency tweeted all day about ridership returns (and routing suggestions) during a parade in San Francisco in honor of the Golden State Warriors' National Basketball Association championship.

Downtowns can continue to be places where people want to be together, even if they don't want to be in the office. Banking chief executives observed this in the summer of 2021 in New York City and tried to enforce a return to the office, arguing that if people could gather in restaurants,

they could also resume in-person work. This approach did not work. In the face-off between talent and Wall Street's office towers, talent won and continued to work remotely.

THE 15-MINUTE CITY

In all these ways, cities continue to pursue pandemic recovery efforts that will maximize existing urban assets in the downtown core while promoting resilience, adaptability, and vibrancy. A number of broader-scale approaches are being experimented with and debated.

The presence of a number of smaller office districts spread throughout a city and city-region may provide a cushion for dealing with the economic effects associated with events such as a pandemic. This type of "polycentric" urban form involves the dispersal of activities, including investment, jobs, and commuting, across a large area. Los Angeles is one well-known example of a city featuring a polycentric form, with multiple centers spread across an extensive landscape. The pandemic has heightened interest in whether polycentricity provides a buffer to enable greater distancing while offering better connections between residential and work locations, reducing congestion and commutes. There is no simple solution, however. While Los Angeles represents a model of polycentricity, it also suffers from sprawl—with traffic congestion, smog, and higher-than-average commute times.

The experience of the pandemic has also led to renewed focus on the role of neighborhoods and the networks of social interaction that they can provide in times of mobility restrictions, such as lockdowns. There is growing discussion among city-builders about whether to focus resources on the "15-minute city" concept. A 15-minute city is a moderately dense, mixed-use neighborhood that includes a range of options for housing, work, socializing, consumption, and recreation. The idea is that creating nodes of activity in relatively small, condensed areas will facilitate easier mobility, minimize travel times, and improve quality of life.

The notion of concentrating urban life at the neighborhood level is not new, but it has regained appeal in connection with the pandemic as well as the climate crisis. In Paris, efforts are underway, led by Mayor Anne Hidalgo, to focus investment and resources on creating 15-minute cities throughout the capital. But questions remain about the suitability of this model for restructuring the downtown core.

Limitations to the 15-minute city ideal include the difficulty of managing incompatible land uses. One instance of this is the increase in demand for warehousing space and logistics centers as well as the workers to pick, pack, and deliver goods. While warehouses and smaller "dark stores" used for fulfilling online orders need to be close to customers to meet rapid delivery expectations, they do not tend to fit well in neighborhoods oriented to the pedestrian scale. There are also challenges in ensuring that the 15-minute city results in vibrant neighborhoods that provide housing for people from a range of income groups, including lower-income households.

Another series of changes to urban form that was both precipitated and accelerated by the pandemic relates to shifting demand for public space. From parks and plazas to sidewalks and streets, public spaces have been subjected to new pressures during the pandemic. Given the rising demand for safe places to gather and interact outdoors, parks have never been more popular.

Cities have responded with efforts to provide residents with access to green space and recreational resources, such as fire pit rentals and outdoor barbecuing sites. An emphasis on outdoor activities also leads to greater demand for shade in warmer temperatures, access to public bathrooms and drinking water, and waste disposal.

Programs that enable outdoor dining on streets and in public plazas are credited with helping to salvage the businesses of independent restaurants. In downtowns, both inside and outside CBDs, the provision of public spaces where people actually want to gather, for a range of purposes, is a key component of ensuring that cities remain vibrant and desirable places.

HOW GOVERNMENTS CAN CHANGE

Early in the pandemic, observers noted a wide-ranging turn toward institutions—especially governments. Governments have played a crucial role in managing policy responses to COVID-19, from securing vaccine supplies to providing income support and relaxing regulations on sidewalk use. All this has made the role of government more visible.

City officials have convened groups of leaders from government, industry, and civil society to encourage a return to the office in an attempt to increase activity in the urban core. Efforts to support small businesses by providing property tax relief and access to outdoor street spaces for

commercial uses are common. The return of street festivals, concerts, and conferences helps to bring visitors downtown.

Programs designed to drive consumption in such ways do matter for keeping cities vibrant. But so, too, do efforts geared toward providing social support. At the outset of the pandemic, when little was known about how COVID-19 was transmitted, some observers noted the imperative of caring for the most vulnerable. In a March 31, 2020, address regarding the socioeconomic impacts of the pandemic, United Nations Secretary General António Guterres noted that in an interconnected world, "we are only as strong as the weakest." This sentiment applies at a global scale, and locally too. A city, in order to function, must care for both the vulnerable and the privileged. The cities that thrive through ongoing uncertainty in the future will be those that prioritize compassion and care.

It is a truism that what gets measured, gets done. Governments have been instrumental in collecting data during the pandemic to better understand the implications of policy measures and waves of infection. At a local level, data on building permit applications, office occupancy and vacancy rates, and transit use helps assess whether and how recovery is proceeding. Data is also an enabler of urban innovation. For instance, data collected from cell phones and key fobs can help to monitor the return to work in the CBD by industry, day of the week, and location. Such data can be used to forecast ongoing shifts in the revival of activity in CBDs, and to develop and adapt policies and funding streams in the meantime.

Public spaces have been subjected to new pressures.

Finally, local governments can act as role models to encourage a resumption of in-person work. In some cities, coalitions of transit agencies, boards of trade, and governments have collaborated on initiatives to encourage downtown-based firms and white-collar workers, including those in the public sector, to return to the office.

Yet the pleas of mayors, civic leaders, and CEOs have been minimally successful, at best, in encouraging a return to downtown offices. This is especially the case in large cities, where the level of remote work remains higher than in smaller places where workers predominantly commute by car. Recognizing that the challenge of returning downtowns to their pre-pandemic vibrancy is harder than anticipated, mayors in cities such as New York, San Francisco, and Toronto have asked coalitions and expert panels to develop strategic advice on fostering long-term recovery.

FROM THE LOCAL TO THE GLOBAL

COVID-19 was initially understood to be the cause of a global public health crisis; more than two years on, it is widely recognized that the pandemic has had cascading impacts across society. As waves of uncertainty linger, we know that cities will continue to feel the effects. The characteristics that made cities strong in the past, such as CBDs with large concentrations of office workers, may not remain strengths going forward. There is a need for ongoing analysis, adaptation, and experimentation. This is not a new task for cities, but the current challenge may be the most difficult one yet.

Both the global networks of which cities are a part, and the local contexts in which they operate, will continue to matter. And as the role of the CBD changes, its relationship with the larger metropolitan region will matter even more. This is likely to necessitate further intragovernmental collaboration and coordination—practices with which many places have gained greater experience over the course of the pandemic.

Here in Toronto, pandemic recovery ebbs and flows. Though downtown office workers have been slow to come back, street festivals returned this past summer, restaurants are bustling, transit ridership is rising, and questions about challenges facing the city beyond the pandemic—such as housing affordability—have taken center stage. The city's experience of the pandemic to date has been reflective of the ways in which the health crisis has impacted global cities around the world—notably the uneven, inequitable distribution of viral transmission, job loss and precarity, and the subsequent unevenness of recovery.

Reviving Toronto and other cities will require rethinking patterns of urban development, the interconnectedness of the urban labor force and business sectors, with new emphasis on the city as an amenity-focused destination, and reliance on formal institutions. Most importantly, this will involve the role of governments, at all levels, and their ability to use policy levers to foster recovery and prosperity—acknowledging the need for innovation and adaptation as cities adjust. ■

"Mobility regulation during the pandemic indicates how relations are changing between government and citizens, not only in China, but across the world."

How COVID-19 Has Redistributed Human Mobility

BIAO XIANG

The COVID-19 pandemic has turned the world into a natural laboratory for mobility regulation. Governments across the world, whether democratic or authoritarian, in rich or poor countries, adopted mobility restriction as the most common pandemic response. The specific measures they adopted have been similar too, including border closures, lockdowns, and rules requiring vaccination certificates as a prerequisite for mobility. But the outcomes varied widely. In some cases, governments' actions to minimize mobility slowed down the spread of the virus; in other cases, restrictions not only failed to reduce mobility, but also created chaos.

After nearly three years of trial and error on a historically unprecedented scale, two general observations can be made. First, mobility restriction will be more consequential than migration control. Migrants comprise only about 3 percent of the world's population, but almost every human being relies on daily mobility. Whereas migration is managed through visa and border controls, mobility restriction requires sophisticated technologies and widespread, complex, and meticulously detailed arrangements. During the pandemic, governments turned human mobility into both a subject and a tool of regulation—that is, they regulated mobility as a means of leverage to control other behaviors, such as by enforcing compulsory reporting of personal data as a precondition of mobility. Migration has already been resuming as the pandemic eases, but mobility restriction measures may have long-term impacts on social life, far beyond mobility itself.

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Second, policymakers must consider the distributive dimension of mobility in order to regulate mobility effectively. Mobility is distributive in the sense that the mobility of different people, the mobility of the same person at different moments (for example, in outmigration and return migration), and different aspects of mobility (such as the intention and the means to move) are all closely related. Change in one element will change another. Mobility is thus an assemblage. If policies fail to recognize the distributive dimension of mobility, limiting movement of one type (say, the daily commuting of street vendors) would only increase mobility of another type (clandestine movements); banning the mobility of one group could force another to move more.

Thus, regulating mobility is redistributing mobility. In China, on which this essay focuses, pandemic policies concentrated specific types of mobility with certain groups (such as government officials or delivery workers), and assigned the responsibilities for overseeing different aspects of mobility to different agencies. The distributive mode of mobility regulation worked remarkably well. But it also raised new questions. This redistribution gave rise to new power relations and new profit-seeking activities, which are themselves poorly regulated. Furthermore, the redistribution of mobility impeded democratic participation. Mobility regulation during the pandemic indicates how relations are changing between government and citizens, not only in China, but across the world.

In contrast with India's disorganized 2020 lockdown, China restricted mobility through the organized redistribution of mobility. Two organized ways through which mobility is redistributed have emerged: by commercial means, with the rise of the "mobility business," and by

administrative-technological means that delegate responsibilities for various facets of mobility (such as data collection and quarantine arrangements) to different actors. The danger is that this mode of governance may displace humans from their positions as autonomous social actors.

GETTING ORGANIZED

Since mobility is inherently distributive, policies aimed at regulating mobility always redistribute mobility in one way or another. The difference is between coordinated redistribution, which is more likely to achieve policy goals, and disorganized redistribution, which can be counterproductive.

The 2020 lockdown in India is a case of mobility control that led to disorganized redistribution. The Indian government announced a nationwide lockdown on March 24, 2020. This announcement, with just a few hours' forewarning, triggered massive disorderly mobility. About 7.5 million internal migrants flocked home from major cities across the country by May 23. Thousands rushed to train and bus terminals to catch the last departures. Many more had to walk for days to make it home because of the lack of public transport. Some died on the road due to traffic accidents, heat, hunger, and physical exhaustion. The situation was so dire that the Indian Supreme Court ordered all local governments to provide free food and transport to migrants, and to bring all migrants home within 15 days. A policy aimed at preventing movement had to be replaced by measures to facilitate movement.

Migrants in India were pushed into desperation because their original mobility assemblage was overturned. They are typically circular migrants, moving back and forth between cities and home villages seasonally or annually. In the cities, they are constantly on the move as street vendors, delivery workers, domestic servants, rickshaw pullers, construction workers, or garbage pickers. The moment they stop moving is the moment they lose their jobs. As daily wage earners, few have savings to pay the rent or buy food in the event that they cannot work. Nor are they able to stockpile the food supplies needed for quarantine.

Furthermore, their jobs rely on others' movement. If urban residents cannot move, many migrants instantly lose their customers. Thus, their livelihoods depend on a particular mobility assemblage—interconnected circulations of different populations, money, and goods. The lockdown disrupted the relations among these elements, leading to a chaotic redistribution of mobility: the desperate rush to get home replaced self-coordinated circulation.

Disorganized mobility redistribution has not been unique to India during the pandemic. By late May 2020, over 68,000 Venezuelans had returned to their crisis-ridden country, from which they had previously fled, after losing jobs in neighboring countries during the pandemic. Since all seven official border crossings between Venezuela and Colombia had been closed, criminal groups reportedly smuggled migrants back into Venezuela. Brazilian cities, meanwhile, witnessed the rapid growth of clandestine transport services, often run by individuals without licenses and in unsafe ways, to meet the needs of those who had to move to make a living.

In contrast to such examples, China organized the redistribution of mobility. One of the most important measures taken by local governments across China during the lockdowns was to send down—the term used was "sink" (*xiacheng*)—government officers to residents' committees. The 650,000 residents' committees are grassroots self-governance organizations, and technically are not part of the government.

The redistribution of mobility was also a redistribution of power.

In late February 2020, the city of Wuhan, then the epicenter of the pandemic, decided to send down "as many officers as possible, to communities that are close and familiar to them," according to *Hubei Daily*. Within weeks, nearly 40,000 officers were dispatched. In Beijing, as of February 27, 2020, more than 70,000 officers had been sent down from district government departments to all of the 7,120 communities in the city, according to the China Knowledge Centre for International Development.

The sent-down officers assumed the roles of mobile carers and delivery workers. They went door to door to take the body temperature of every resident, collected orders for medicine and other necessities, purchased the goods and delivered them, distributed protective equipment such as masks and gloves, and visited older adults living alone. The officers' mobility—both their "sinking down" and daily mobile work—enabled the immobilization of the general population.

Why did local governments send down officers? The Ministry of Civil Affairs offered two explanations at the State Council's press conference on February 10, 2020. First, there was a shortage of personnel at the grassroots to enforce immobility, with an average of 350 residents for every residents' committee staff member. Second, government officers are better educated and more experienced than staff at residents' committees. Officers are "more familiar with the up-and-down communications chain [in the bureaucratic machinery], and with the latest policies in the government system," according to the China Knowledge Centre for International Development. They can therefore play a "guiding and supervisory role" in relation to the grassroots staff. As government employees, the officers are able to "deploy resources and raise funds to make up for shortcomings at the community level" and to "ensure stability." The practice of sending down officers to the community level continued up to late August 2022, as this article was being finalized.

In this case, the redistribution of mobility was also a redistribution of power. Officers' sinking down represents further penetration of the community by state power. But sending down government officers was a temporary emergency measure. In comparison, the mobility business and the reassignment of responsibilities represent more widespread and sustainable ways of redistributing mobility.

THE MOBILITY BUSINESS

Platform-based technology companies that provide delivery and logistics services have been among the biggest beneficiaries of the COVID-19 pandemic. Delivery orders in Wuhan jumped fivefold during the lockdown that lasted from January 23 to April 8, 2020; for delivery workers riding motorbikes, the average distance of daily travel more than tripled, according to the Ali Research Institute. Across the nation, the market size of the online food delivery business expanded from 578 billion renminbi (roughly $85 billion) in 2019 to 812 billion renminbi in 2021, and an expected 942 billion renminbi in 2022, according to Statista. Such rapid growth is remarkable, considering the concurrent slowdown in China's economy.

The mobility business has redistributed mobility: these companies sell customers the service of having someone else move on their behalf. An Alibaba report estimated that a single rider enables 24 residents to stay at home. Many residents are outsourcing their everyday errands to a new army of specialist mobility labor. In this way, outsourced mobility has become a type of commodity.

Though the sector is booming across the world, what makes the mobility business in China special is its rapid penetration into smaller cities and the countryside. Widespread Internet connectivity is the main reason for the high penetration rate, and the pandemic was an important boost. According to data from the China Internet Information Center, 40 percent of Internet users in third-tier cities had used online food delivery services by March 2020. The number of customers over 40 years old has increased sharply—up 237 percent between January 23 and February 23, 2020, in the case of MissFresh, a Beijing-based delivery start-up, the *South China Morning Post* reported. This trend has continued since.

Companies also capitalized on the demand for mobility services during the pandemic to accelerate expansion of the scope of their services. In April 2020, Didi China began to run all kinds of errands for consumers that involve physical movements. This was dubbed "running leg" service, now a generic term in the industry. The consultancy iiMedia Research predicts that the "'running leg' will grow fast," with services ranging from standing in lines to taking care of pets.

Platforms have invested heavily in infrastructure to facilitate as well as monitor mobility. To address customers' concerns about health risks during the pandemic, platforms modified their apps to collect riders' health data in real time and monitor workers' movements ever more closely, including how they interact with suppliers, pack food and seal boxes, and sanitize their uniforms. The companies also invested in setting up "smart lockers" across major cities, which enabled contactless service: the rider can drop parcels for the customer to pick up in a precisely coordinated manner without any personal encounter, saving time and reducing the risk of infection.

Such mobility infrastructure can also be used for data collection and behavioral monitoring for broader purposes. This makes platform companies potential partners of the government in restricting mobility and, more generally, in social control. Mobility platforms have been not only making more money, but also gaining more power.

Leveraging their access to larger numbers of customers, delivery service platforms gained commanding heights in the market. Before the

pandemic, many food companies and restaurants resented the high fees charged by the platforms, but during the lockdowns they depended on these delivery services to survive. A survey in China reported in April 2020 by iiMedia found that 70 percent of restaurants planned to increase their spending on third-party delivery services after the pandemic.

There is tension between the increasingly powerful mobility business and the established system of governance in China. In sharp contrast to what happened in 2020 in Wuhan, when the government called on delivery and taxi companies to provide special mobility services after public transport was suspended, the Shanghai government did not allow major delivery companies to operate during that city's lockdown in the spring of 2022. Jingdong (JD), a leading logistics and delivery company with 417 million users as of 2020 and annual revenue of $149 billion in 2021, could not function in Shanghai, despite repeated pleas, because the company was not listed as a specially permitted service provider. Acute shortages of delivery capacity created chaos and frustration among locked-down residents.

It is unclear why the Shanghai government blocked JD. But there is widespread suspicion that officials, especially at the central government level, are worried that major platform companies, including those in the mobility business, may have gained too much power to affect public order. Didi, a leading mobility service provider that is China's equivalent to Uber, had its apps removed from app stores and its new sign-up function disabled by the government in 2021 due to security and privacy concerns. The government at the same time imposed financial penalties on other major platform companies, most notably Alibaba and Tencent, and subjected them to much stricter regulations than before.

Mobility restriction measures may have long-term impacts on social life.

REDISTRIBUTING RESPONSIBILITIES

It is not sustainable to divide the population into a small group that specializes in movement and a majority that stays put. The entire population has to resume mobility sooner or later. As early as February 2020, the Chinese central government urged employers and local governments to bring the country's 170 million rural-urban migrants, the majority of whom had gone home for the Chinese New Year in January and were subsequently confined in the countryside, back to work.

How did the government allow mobility to resume during the pandemic without increasing the infection risks? It tracked each individual's mobility as closely as possible by taking mobility apart, and then assigning the responsibility for monitoring the various elements to different actors. Local residents' committees were responsible for reviewing individuals' applications to leave their homes and for issuing permits; employers were obliged to provide quarantine facilities on employees' arrival. These different parties were then connected to each other via digital apps. Mobility was dissected, redistributed, and reassembled.

The redistribution of responsibility was first tried out in 2020 by tasking the local government in the place of origin and the employer in the destination to organize cross-regional labor mobility. This was done on a "point-to-point" basis: migrants were transported directly from home to the workplace in groups, led by designated personnel, on designated vehicles, following designated routes, to the designated enterprise. Each bus was to be no more than half full to allow for social distancing, and the last two rows were reserved as an isolation area in case any passengers developed a fever. Each migrant had to go through health checks before departure, and have their temperature checked throughout the journey. All the migrants' information, compiled and updated by the designated organizer along the journey, had to be handed over to the employer on arrival.

This method was widely adopted again following the 2021 Chinese New Year in order to resume mobility after the holiday in an orderly and safe manner. More than 5 million migrants were transported point to point on 200,000 chartered coaches and 367 chartered trains between mid-February and the end of March 2021.

A more elaborate system was soon developed. Responsibilities were distributed much more widely, including among local governments, residents' committees, employers, commercial intermediaries, and landlords. Labor agencies that place migrants in temporary jobs and landlords who rent housing to migrants were obliged to

make quarantine arrangements for them and monitor their travel histories and health conditions. Landlords and labor agencies were also obliged to help migrants if needed. Those that failed to do so could be delicensed. Migrant workers' short-term contractual relations with landlords and labor agencies were turned into social relations of control and assistance.

The following case, provided by Chaoguo Xing, a sociologist at Beijing Technological University, offers an example of how an individual moved in a thick web of distributed responsibility. Ms. Ye, a 51-year-old native of Hubei province, had worked as a domestic helper in Beijing for two decades, with a specialty in caring for newborns. She returned to Hubei during the Chinese New Year in 2020, just before the outbreak of COVID-19 was officially acknowledged. Starting in late February 2020, Ye repeatedly contacted her landlord in Beijing, asking whether she could return to look for jobs. The landlord advised against it until mid-April 2020, when Beijing allowed Hubei residents to enter the city.

The landlord reported Ye's plan to return to his residents' committee. A committee staff member inspected the premises and was satisfied that it met the quarantine requirements. The staffer called Ye to double-check her details, orally approved her rental contract and travel plan, and told her that she must follow the instructions of the Beijing Heart to Heart app throughout her journey.

Mobility was dissected, redistributed, and reassembled.

Beijing Heart to Heart, free to download to smartphones, was developed by the Beijing municipal government with technological support from the Chinese tech giant Tencent during the pandemic. After registering on the app, Ye followed the instructions and filled in her expected date of arrival, her address in Beijing, and her current health condition. For the next 14 days, Ye had to report her body temperature and whether she had any COVID-like symptoms on the app. She then received a green health code—indicating that she was allowed to leave home—as well as a reminder that, since Hubei was listed as a high-risk place, she had to submit a PCR test result via the app before she could receive final approval.

All the information submitted to the app was reviewed by the Beijing Center for Disease Control and Prevention (CDC). Apparently satisfied with Ye's data, the CDC issued an approval and notified the street office (the lowest level of urban government) in the neighborhood where Ye would stay that it should list her as an "approved visitor." Only after this was she able to buy train tickets, which she did through the same app. The ticket information was automatically transferred to the landlord and the residents' committee. A committee staff member immediately phoned her to confirm her travel plans.

On Ye's arrival at the Beijing railway station, a station official checked her information on the app before she was allowed to proceed. Following the landlord's instruction, she took a taxi to the residential compound to minimize social contact. The landlord met her at the gate, where the community's epidemiology staff reviewed her information again. After that, Ye was taken to her room and started the 14-day quarantine. The residents' committee staff checked her daily activities, and after 14 days they issued her a certificate for the completion of quarantine. Ye was finally allowed to start working.

But not everyone was as lucky as Ye. Sometimes one's health code suddenly turned from green to yellow—for instance, if one unwittingly walked past an infected person. A yellow code meant that one had to stop in the middle of one's journey and immediately go to quarantine.

In other instances, staff at bus or train stations turned passengers away because the regulations regarding who was allowed to enter had been tightened in the previous hour. Stranded citizens became temporarily homeless. Barred from leaving the city or checking into hotels, they had to move between parks and sleep in railway stations, public toilets, telephone booths, or cars. Such homeless populations had not been seen in Chinese cities for decades.

The redistribution of responsibility could create stress for citizens in other ways as well. The responsible parties might abuse their newly acquired power, or impose excessive control out of fear that they would be punished by the government for negligence. By assuming the function of social control, labor agencies and landlords strengthened their positions in relation to migrants. It became harder for migrants to find jobs without labor agencies, because the migrants needed the agencies' help with negotiating travel and quarantine requirements. As a result, agencies'

fees for migrant domestic helpers in Beijing went up significantly in 2020 and 2021. Similarly, since migrants needed landlords' permission for travel and their help with quarantine arrangements, they had no leverage in negotiating rents.

Local governments, meanwhile, were worried about being accused of negligence in pandemic control. Each level of government tended to introduce new restrictive measures in addition to what had already been imposed by the higher levels. If a municipal government decided that a 5-day quarantine was sufficient for certain cases, the district administration might extend it to 7 days or more. An employer in the district might require all employees to live on the premises of the enterprise, forbidding them from going home—in some cases for weeks. This inconsistency in policies and the excessive constraints ultimately disrupted citizens' lives much more severely than the virus itself, especially in 2022.

THE HUMAN DISPLACED?

Mobility restriction in China during the pandemic has proved to be highly effective. The measures worked well partly because the government redistributed different types of mobility, as well as different aspects of mobility, to different populations and agencies. By doing so, the government was able to manipulate mobility behavior to an unprecedented extent. But this came with high costs.

The organized redistribution of mobility was carried out in a top-down, authoritarian manner, empowered by the latest communication technologies. For ordinary citizens, the processes were complex, opaque, and often absurd. Citizens did not understand what was happening to them, and could not predict how they would live their lives the next day. Yet residents' efforts to organize themselves for basic purposes such as securing food supplies were discouraged and even prohibited. This was particularly evident in Shanghai between March and June 2022, when the city's 26 million residents were put under a draconian lockdown. Popular discontent reached a level unseen in China since 1989.

The situation in China remains fluid as the state continues to apply its strict "zero-COVID" policies despite the evident economic and social costs. Will the government reinforce its control even further by refining the methods of behavioral manipulation? If the state perfects the technology, improves coordination across agencies, and bridges gaps between different provinces that manage data seperately, it can be even more ruthless in making decisions without public consultation.

Or will the disgruntlement displayed by Shanghai residents trigger popular demands for greater public participation in policymaking? Citizens may refuse to be controlled and cared for by multiple delegated agents of the state, and demand the right to make decisions about their daily lives and take full responsibility for their actions as autonomous persons.

These questions could shape China's political future in decades to come, but they are not specific to China. Governments all over the world are actively adopting big data, algorithms, and tracing technologies, and outsourcing social control to private parties. These measures are attractive to states because they are efficient and can be easily shielded from public scrutiny. But they reduce persons to carriers of behaviors that are traced, disassembled, and reconnected to meet policy goals.

You may consider yourself a rights-bearing individual, but you are broken down into fragments. At one moment you are a customer purchasing mobility services from an online platform, at another moment an applicant waiting for permission to move, at yet another moment a client who is served—and monitored and controlled—by a commercial intermediary. Your fragmented needs may be satisfied promptly, but as a human with opinions and feelings you no longer matter. Your right to survival is protected, but your right to know is compromised. Your capabilities are augmented when you order food, buy clothes, check in for a flight, or monitor your health conditions online, but they are disabled when you try to assess reality and make decisions for yourself.

How can the human be defended as a social and political subject with the basic right to move, and not merely be protected as a form of biological life? This is a question that the post-COVID world has to face. ■

"Children across the world foresaw many of the adverse consequences of the initial policy choices in the pandemic. They should have been (and still could be) involved in finding solutions."

Protecting Children's Rights in Crises

LAURA LUNDY

The United Nations Convention on the Rights of the Child (CRC) was adopted by the UN General Assembly in 1989, and had been in force for over three decades when the COVID-19 pandemic began. One of the distinctions of the CRC is that it has been more rapidly and widely adopted than any other UN treaty, ratified by all but one of the member states. (The United States is the lone exception.) It is also one of the most comprehensive international human rights instruments, covering the full array of social and economic rights (such as health, education, and social assistance) and civil and political rights (privacy, expression, association, and assembly).

For the most part, the CRC rewrites traditional articulations of established human rights in ways that render them suitable for children, while adding a panoply of rights that focus on protecting children from diverse harms. For example, not only do children enjoy a right to life (as adults do), they also have a right to survival and development. Likewise, children and adults alike have a right to rest, under the 1948 UN Universal Declaration on Human Rights, but only those under the age of 18 enjoy a right to play. The other distinguishing feature in the CRC, as well as in children's lives, is the role of parents and guardians: they have a right and a duty to provide guidance to children, and states are under an obligation to support them as they raise their children.

Human rights come into their own at times of crisis. In many ways, that is their raison d'être: guiding government action not just during emergencies, but especially at such times. The modern human rights project, in the form of the Universal Declaration on Human Rights, was developed as a direct response to the human suffering endured during World War II. The first global articulation of children's rights, the 1929 Declaration on the Rights of the Child, was adopted by the League of Nations in the wake of World War I.

One of the core principles of the latter was summarized in the statement: "The child must be the first to receive relief in times of distress." This was uncontroversial, echoing a long-standing and widely accepted rule: children first. In fact, the concept of affording priority to the best interests of the child has been adopted and incorporated into domestic law in the legal systems of many nations, and it is one of the general principles of the CRC. This proposition was so familiar and acceptable to the CRC treaty drafters that "familiarity bred content," as human rights scholar Michael Freeman put it.

As the world headed into the many unknowns of the pandemic in 2020, this globally established framework for ensuring that children's rights were respected was already in place. And an important dimension of this framework was that children's best interests should be a primary consideration in all decisions affecting them, as stated in Article 3[1] of the CRC. It should be noted that this article does not state that the best interests of the child are *the* primary consideration. Children's interests are not the only consideration, and can be outweighed by other interests, such as public health. But they must be (a) factored into policymaking, and (b) given a degree of primacy.

Had that principle been adhered to, there would have been a process for assessing the impact on children's rights for every pandemic policy that might have affected children, based on evidence and with measures in place to mitigate any adverse consequences. That is what the promise means; and in most other crises, adopting that approach

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has been the goal, even if it does not always happen in practice. In any emergency, whether stemming from conflict, natural disaster, or disease, it is a priority to keep children who are caught up in the crisis safe, well, and educated. Yet children's rights and interests have often been neglected or sidelined in the response to this pandemic.

SCHOOL CLOSURES

The COVID-19 pandemic changed the emergency landscape in many ways, one of which was how public responses addressed the protection of children. It is widely acknowledged that children tend to fare disproportionately poorly in emergencies, and that is why their well-being is often an uncontested priority in the response. When the novel coronavirus arrived, however, the early indications were that children were not susceptible to infection, or if they did catch it, the typical result was a very mild illness with limited consequences. Soon after, as more was learned about the virus, concerns arose that children often had asymptomatic infections and could unknowingly spread the virus to others who would likely fare much worse.

While we now know that the assumption that children would not come down with infections was inaccurate, the second assumption, which portrayed children as dangerous to adults, may have led to even worse consequences for children's rights and well-being. It seems to have provided most governments around the world with sufficient justification to adopt a range of public health measures with direct consequences for children, but without any process for considering where children's interests lay and what the implications would be for their human rights.

An estimated 1.6 billion children had their education disrupted.

The first of these measures was the closure of schools, which had obvious disruptive effects on children's right to access to education. What began as an impromptu break in the school year quickly shifted to a scramble to provide online learning, or so-called home schooling. This forced parents and guardians to balance their own working lives against keeping their children on track with online tasks set by teachers. An estimated 1.6 billion children around the world had their education disrupted.

The rushed shift to online learning also exposed social and economic digital divides in ways that had often been discussed but had never been so visible, with such stark consequences. It is estimated that 463 million children (and their teachers) did not have access to the devices, or to the Internet service, needed to take part in online learning. Children with disabilities were also disadvantaged by the lack of accessibility features on devices and platforms in the digital environment.

HEALTH AND SAFETY AT RISK

The effects of the closure of schools were not limited to children's education. Among the most worrisome impacts on children's rights were the significant adverse consequences for child well-being and protection. School is a place where many hungry children are fed. In January 2021, UNICEF estimated that 39 billion school meals had been missed since the start of the pandemic, with serious consequences in terms of malnutrition and wasting.

Instances of neglect and abuse, including physical and sexual abuse, also increased. This was not surprising, given that schools offer a temporary refuge from violence and facilities where abuse can be identified and addressed. Taking children out of school removes those supports and endangers children. Moreover, the circumstances of the pandemic—including financial worries and cabin fever in crowded homes—put many family relationships under strain, affecting children's lives. On top of that, the usual state response to such problems, which relies on scrutiny and surveillance through child protection systems, was cut back to a phone call. All of this provided rich soil in which violence against children could thrive unchecked.

Predictably, children's mental health, like that of many adults, took a record-breaking dive, as evidenced by a surge in referrals to mental health services. Many children were anxious about the pandemic and its effect on their families as well as on their studies, grades, and futures. An added burden for many was the necessity of experiencing bereavement without any of the rituals customarily used around the world to offer comfort and acknowledge grief. Many of the usual coping mechanisms used by children, such as socializing with peers, playing sports, or just being outside, were taken away from them—with long-term consequences for mental and physical health. Many

children became inactive, and some spent unhealthy amounts of time online. Some developed gaming addictions.

Many children contracted COVID-19, despite the initial assumption that they were less susceptible to infection, and some became very sick. Some developed long COVID, and continued to miss school and other activities even after lockdowns were eased. Later, unvaccinated children were sent back to school, in some instances as part of what appeared to be an attempt to gain herd immunity for the entire population, though it later became apparent that this objective was impossible to achieve with an ever-mutating virus. They were, in a sense, involuntary participants in an unofficial medical trial—through their nonparticipation in the vaccine rollouts.

Clinical trials of vaccines formulated for children came later in the pandemic. Even when the vaccines were approved for use with children, many parents remained skeptical and did not take their children to be vaccinated; some cited concerns about the lack of long-term data on side effects. This created a further child rights issue, as some children and young people came forward for vaccination without parental approval.

Although the childhood mortality rate from COVID-19 has always been much lower than the mortality rate for adults, many children have died from other causes after missing out on routine immunizations or treatments. Moreover, the millions of adult deaths from COVID-19 around the world have entailed profound consequences for children. It is estimated that over 1.5 million children lost one of their parents or caregivers in the first year of the pandemic. As a result of those losses alone, leaving aside the grief and impact on mental health, families were thrown into poverty in many parts of the world. As always, this has the knock-on effect of exacerbating an array of other breaches of children's rights by increasing the pressure for child sexual exploitation and marriage as well as child labor.

These disadvantages were not distributed equally. Certain children, especially those with disabilities, experienced more profound adverse effects than others. Many were not able to go to school and were therefore unable to access a range of social and medical services. Many families who depend on schools for respite from the burden of full-time caring came under intense pressure. Some children ended up in institutional care when the pressure became too great on their families.

Children in institutions, such as detention facilities, suffered from reduced staffing due to illness, resulting in more periods of isolation—and sometimes more time in detention, when the courts handling their cases suspended operations. Children on the move also fared poorly: many refugees and asylum seekers were confined to overcrowded camps, where they had limited access to the hygiene necessary to keep them safe from the virus.

RECLAIMING THE RIGHT TO BE HEARD

The other human right that was routinely and blatantly breached as part of the pandemic response is one that is also exclusive to children—the right to express views and to have them given due weight in accordance with age and maturity, which is afforded by Article 12 of the CRC. This unique right exists in recognition of the fact that children are often in a position where decisions are made for them by others, including in matters of public policy. In this regard, it can be considered a substitute for the right to vote, which adults enjoy in most countries but children usually do not.

The Committee on the Rights of the Child, which monitors and advises on global implementation of the CRC, has emphasized that the right to be heard applies both to individual children and to groups of children, and that children should be consulted on laws and policies that affect them. Though many countries have made huge strides in allowing children to participate in public decision-making (for example, Ireland has a national strategy on child and youth participation that applies to every government department and public body), all such initiatives seemed to stall when COVID-19 arrived. In the pandemic response, public policy was routinely made for children without any attempt to involve them. That was the case even though the CRC emphasizes that it is especially important to include children in decision-making in times of crisis and emergency.

Early in the pandemic, a group of children's rights organizations—led by international human rights group Terre des Hommes, the UN Secretary General's Special Representative on Violence Against Children, and the Centre for Children's Rights at Queen's University Belfast (where I am co-director), working alongside children and young people—formed the coalition Covid-Under19 to gather children's views on their

experience of their rights during the pandemic. The coalition developed a global survey that received responses from almost 27,000 children in 135 countries.

The results, across diverse social and geographical settings, were remarkably similar. Children reported serious concerns about the quality of their online education, and many were anxious about examinations and getting the grades they needed to progress. Some reported rising violence at home. Many were worried about the possibility of their parents catching COVID-19, job insecurity, and the loss of family income. They missed their friends, their extracurricular activities, and their festivals and local community rituals. They missed hugging. Older children complained about their inability to see or get a girlfriend or boyfriend, and some reported that they spent their time watching pornography. Younger children missed their friends, their grandparents, and playing outside.

One of the most striking things about the responses to the survey was the clarity that many children had about what was likely to unfold for them because of the emergency public health measures:

"Our country's economy is degrading . . . some children are starving because of no income [for] their family. Some are suiciding. Some are not getting to join online classes because of no internet access and even some . . . getting to join it . . . are not having good studies as before and those whose examination was stopped by COVID-19 pandemic, their studying has . . . stopped or they are being demotivated about exams and some children aren't even safe at home; they are being raped or abused! Our government should think of these things rather than other things which are not so important, and ensure child rights." (Boy, 14, Nepal)

"In case of quarrels or violence in the family I cannot ask for help, because they cannot help me to go [to] another place. This is an issue; all the people are in quarantine. Many emergency phone numbers for certain issues are not working at the moment, or you keep calling and nobody answers." (Girl, 10, Moldova)

"I wish there were more help available for families going hungry. People can't go out and work and the situation is desperate. Children don't know how to wait. They only know they're hungry." (Girl, 9, Bolivia)

The survey was conducted in the late spring and early summer of 2020. What is clear from the children's responses is that they were quick to grasp that many of the policy choices being made by their governments would have significant, adverse impacts on their lives. This was in sharp contrast to the public and media discourse that emerged about children and young people at the time: rather than being seen as a group at risk, in some contexts children were portrayed as a source of risk—so-called virus vectors.

As can be seen from this selection of survey responses, children's concerns were both wide-ranging and deep. From the outset, they were warning of the consequences of the public health responses, particularly the closure of schools and extracurricular activities, for their safety, education, and health—especially, in the longer term, their mental health. This concern was at odds with the approach of most governments in the early stages of the pandemic. The impact on children was something that most governments only began to attend to much later.

Rather than a group at risk, children were portrayed as virus vectors.

Complying with the human rights obligation to involve children in public decision-making from the outset would not only have acted as an early warning system; it also could have provided practical solutions to mitigate some of the harms to children that are now widely acknowledged. The recommendations offered by children in response to the survey included the following:

"I would have organized more sport things for children because every club closed down. Also, I would've opened up the libraries for children who don't have a quiet place to study." (Girl, 17, Netherlands)

"They [authorities] should pay more attention to children. Some children can't afford to buy face masks, which is bad. Face masks on the market are for adults and few being tailored are for children." (Girl, 15, Zambia)

"I would tell politicians when they are making laws to do that with the heart of mothers and not of politicians." (Girl, 12, Bolivia)

Upsides to Lockdowns

While most of what occurred amid the early pandemic responses can be classified as endangering or breaching children's rights, not all the

effects were negative. For example, mortality rates from accidents among children dropped. There are children and young people alive today who would have been dead if it had not been for the lockdowns. Children, especially teenagers, who might have engaged in risky behavior and been killed in accidents were living among their families unaware of the fate they had avoided. These young people, alive because they were confined at home, were not the only ones to benefit. Even the closure of schools suited some children, including those suffering from social anxiety or bullying.

The CovidUnder19 survey asked children what they liked most about the lockdowns they had endured. The responses varied. Many liked having the option to pursue their own interests and hobbies, and learn new skills, from guitar to coding to dance. Many children referred to the fact that they had more time with parents and were engaging in family games and walks. These responses, focusing on the pandemic's positives, are illuminating from a children's rights perspective. They shine a light on what was wrong before COVID-19 and what needs to be addressed—for example, school curricula or the work-life balance for families.

"I like the online lessons; I have problems with anxiety, so being able to turn off my microphone and/or camera sometimes makes me feel much safer and makes it easier for me to pay attention. . . . Personally, I've found that less extramurals and not having to spend time traveling leave me more time for hobbies and sleep." (Girl, 15, South Africa)

"I didn't have to go outside and be bullied about the way I look and how I act." (Nonbinary, 13, United Kingdom)

"I can sleep well/get enough sleep, no need to rush anywhere, no need to get up early. I can complete school assignments at an individual pace and order. Mom is always at home; she prepares delicious things more often. . . . Mom might prepare tea and dessert and bring it to my room. I can sit with [her] and talk." (Boy, 14, Russia)

"I [have] more time to read books, I have time to do exercises, watch movies, play games, and my mom [spends] more time to teach me [how to] do homework." (Boy, 8, Vietnam)

Children and young people also reported having more time for campaigning and activism. Some of that engagement concerned ongoing issues, such as the environment—for example, the global youth-led climate demonstrations in September 2021 to call for action at the COP26 summit in Glasgow. Children also reported environmental benefits from the pandemic—for example, the reduced pollution from lower transportation use.

For others, their government's responses to COVID galvanized them into action and provided a focus for activism. CovidUnder19 is just one example of this, albeit a high-profile one. Adopting an intergenerational approach, children and young people worked with high-level public figures to draw the UN's attention to the impact of the pandemic on children, drawing on the CovidUnder19 findings. At the local and national levels, some children and young people formed coalitions to campaign on issues of common concern, such as how they would be graded and assessed in the absence of in-person examinations.

Any perceived injustice can galvanize protest, and the effects of pandemic responses on children were no exception. Children exercised their civil and political rights in the online environment to highlight injustices and to campaign for their rights. Many were successful in harnessing their additional free time for collective action, using and shaping the online space on platforms that are used less by adults, such as TikTok. They also used the networks formed on social media during lockdowns to organize in-person action when restrictions eased, such as participation in the Black Lives Matter protests.

PAINFUL LESSONS

The lessons to be learned from the past two and a half years of the pandemic about securing children's rights are both extensive and profound. The responses of governments to the pandemic have in many respects provided an excellent blueprint of what not to do in any crisis to come.

The first lesson is that children's rights are not optional in an emergency, and that their best interests must, as always, be a primary consideration. That requires explicit, evidence-based consideration of the consequences of public policy and decision-making for children—in short, a child rights impact assessment.

Lesson number two is to keep schools open whenever possible. When doing so is impossible, policymakers must ensure that schools and all children have access to the infrastructure for online learning. Schools do not just educate children, they play a crucial role in keeping children safe, nourished, active, and well.

Lesson number three is to ensure that the obligation to engage with children's views is not

abandoned. Children provide unique insights into their experiences, and these insights must be sought out and taken seriously. Children across the world foresaw many of the adverse consequences of the initial policy choices in the pandemic. They should have been (and still could be) involved in finding solutions that would address many of the harms they have suffered.

The treatment of children in the pandemic and its consequences for their rights and well-being will be studied for years to come. Few, especially among the children affected, will conclude that governments handled this well. Across the world, news outlets now abound with stories of learning loss, mental health crises, and the arrested development of younger children. And every country has tragic instances of children who have been murdered by their caregivers during the lockdowns.

What most people in the child rights community hope for is something akin to the post–World War I outrage at child poverty and suffering that generated the first Declaration on the Rights of the Child. The unique suffering and harms that children have endured in the pandemic could, now as then, operate as a catalyst for a societal process of rethinking childhood and childhood policy and provision generally. At a minimum, there should be an effort to improve our understanding of how to address children's rights in emergencies, and a renewed commitment to doing so.

There are early signs that some of what has been learned from the pandemic has been harnessed to reform proposals. For example, the expertise that was gained in virtual learning environments is continuing to shape educational curricula and pedagogy in many positive ways. Plans are being implemented to ensure wider access to technology in the event of future lockdowns. The pandemic also further exposed data protection vulnerabilities and other dangers for children in the online world, issues that are now the focus of major public policy initiatives. The Council of Europe, for example, has developed a series of resolutions and toolkits for its 46 member countries that are focused on keeping children safe in the digital environment.

From a children's rights perspective, "building back better" from the pandemic requires explicit attention to what happened to children and young people and their human rights. As always, that cannot and should not take place without involving children and young people in public decision-making. Doing so is the cornerstone of a meaningful children's rights approach. ■

"There is nothing private about our health in the political economy of digital data."

The Erosion of Health Data Privacy

MARY F. E. EBELING

In the early days of the ongoing coronavirus pandemic, the dichotomous lifesaving and life-threatening role that health data could play during this global public health crisis quickly became apparent. In the United States, where I was living during the first years of the pandemic, it seemed that the politicization of health data became a daily spectacle of horror.

At press briefings, then-President Donald Trump publicly contradicted official Centers for Disease Control and Prevention (CDC) data, eventually ordering that the CDC's weekly COVID-19 reports be vetted by White House political appointees. Because of the Trump administration's vilification of National Institute of Allergy and Infectious Diseases Director Anthony Fauci and his public health messages about reducing infection rates through mask-wearing and social distancing, millions of Americans came to see wearing a mask as a political act rather than a health safety measure.

Data literally became a matter of life and death in other ways during the pandemic. There was an urgent need for accurate, unbiased, and timely medical information in order to test, and eventually to distribute, vaccines in equitable ways. Yet there was a dearth of infection rate data for vulnerable communities and rampant misinformation, information suppression, and outright lying about the number of infections and deaths by the Trump administration and its allies in state governments. The pandemic also revealed how fractured the American health care system and health privacy laws are.

During the pandemic, more Americans became acutely aware that the bargain sold to them by Big Data—giving up control over one's health data and privacy in exchange for better health—is often not a bargain at all, especially for anyone seeking care in a for-profit health care system. In a survey conducted by the Pew Research Center in April 2020, when Americans were asked if they were comfortable with the government accessing their private health information through contact-tracing apps, especially if it meant that people's health would be protected, more than half of those surveyed responded that they were not comfortable with such surveillance, nor did they believe that it would be effective in slowing or stopping the spread of COVID-19.

While American distrust of government has been growing over recent decades, so too has widespread skepticism of the corporate sector, especially in perceptions of undue snooping by Big Data into people's private lives. An earlier Pew survey on data privacy, conducted in June 2019, found that six in ten Americans believed that data on their daily activities—both online and offline—are regularly collected by corporations and the government; 81 percent of the survey respondents feared that the potential risks of harm due to data collection by companies outweighed any benefit or convenience. By the start of the pandemic, many Americans were already well aware that when data are in the hands of corporations and under capitalist surveillance, there is no such thing as privacy anymore.

BIG DATA'S GROWING REACH

News broke on May 8, 2020, early in the pandemic, that the data analytics firm Palantir Technologies had won a contract with the US Department of Health and Human Services (HHS) to provide a COVID-19 contact-tracing platform called HHS Protect. Many observers, especially in the human rights and immigrants' rights communities, voiced serious concerns about the data

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privacy implications of a security contractor having so much control over the health data of millions of Americans.

Since its founding in 2003 by Silicon Valley libertarian entrepreneurs—tech billionaire and Trump donor Peter Thiel is a co-founder—Palantir has burnished its controversial reputation by developing platforms for military, police, and anti-terrorism applications, such as Project Maven, which utilizes artificial intelligence in military drones. Before it went public in September 2020, at the height of the pandemic, Palantir held security contracts with nations around the world, including the US Defense and Homeland Security departments and the United Kingdom's Home Office, National Health Service (NHS), and Ministry of Defence.

Palantir describes its core business as building software to support data-driven decision-making and operations. In an interview with Axios in May 2020, Alex Karp, Palantir co-founder and chief executive, said that the company's products were relied on by "clandestine services" and "used on occasion to kill people." He added, "If you're looking for a terrorist in the world now you're probably using our government product and you're probably doing the operation that takes out the person in another product we build."

The fragmentary system that regulates health data enables abuse.

In the United States, the company is probably best known for its work with the federal Immigration and Customs Enforcement (ICE) agency to build the controversial Investigative Case Management system. Under a $41 million contract, Palantir developed data surveillance technology that has enabled ICE to intensify its raids to detain and deport members of targeted communities. The acceleration in raids terrorized migrants and led to an increase in family separations during the Trump administration, which have not lessened under President Joe Biden. According to the migrants' rights organization Mijente, the United States increased deportations of undocumented immigrants tenfold in 2018 alone, in large part driven by Palantir's data surveillance technologies.

In the UK, Palantir is the presumed favorite to win a £360 million contract with the NHS in late 2022 to develop a federated patient data platform across all of its departments. The NHS is already using the contractor's Foundry patient data platform to analyze massive amounts of COVID-19 health data collected during the pandemic. According to openDemocracy and Foxglove Legal, two British digital privacy rights organizations, the prospective NHS deal stipulates that intellectual property rights over patient data will be retained by Palantir, similar to the company's contract with HHS to track COVID-19 infections and deaths.

As this secretive security technology firm quickly embeds itself into the "health care space," patient and health privacy advocates continue to ask exactly what data Palantir has collected through its contact-tracing product. How broad is the scope of personal, identifiable information being gathered and stored by the contractor? Is the data being shared beyond HHS or the NHS, and if so, with whom? Could ICE or the Home Office use contact-tracing data collected by Palantir—ostensibly a special, protected class of health data—to pursue undocumented migrants, who are among the groups most at risk of contracting and dying from the coronavirus? Given that Palantir, by its own admission, has already weaponized data surveillance, there have been widespread fears that even more harm could be done if it weaponized health data.

PANDEMIC PROFITEERING

Before the pandemic, the United States already had a broken health data system, fragmented and prone to leaks and other kinds of patient-privacy exposures, and dominated by public-private partnerships in which the private companies involved seek to commercialize patient data. Over the past decade, Big Data third-party companies, like Alphabet (parent company of Google) or credit bureau Experian, have lobbied lawmakers heavily; in 2021 alone, Apple, Amazon, Google, and Facebook spent a combined $55 million on lobbying the federal government. In some cases, lobbyists have written in part or whole the legal regulations that govern data privacy in the United States, cementing data surveillance and turning private information into financial assets in every process within the health care system.

Epidemiological disasters such as the COVID-19 pandemic bring to the fore the tensions between the need to share data in an emergency and the

privacy concerns of citizens and patients. The pandemic has exposed long-running fissures in American society, such as racialized health inequities and millions of Americans lacking access to basic health care. It has also revealed how the fragmentary system that regulates health data enables third-party players to profiteer off of patient data.

One of the more egregious cases of corporate theft of patient data in the pandemic involved a small start-up in Philadelphia, Philly Fights COVID, founded as a nonprofit organization by Andrei Doroshin, an undergraduate student with no public health or epidemiological experience. Modeling itself after the "move fast and break things" ethos of Silicon Valley tech start-ups, the outfit quietly registered a for-profit arm in December 2020 after winning a deal with the city's Department of Public Health to administer COVID-19 vaccines to thousands of residents, free of charge.

The company registered thousands of city residents for testing and eventual vaccine distribution on its hastily built website, where it claimed the right to monetize all of the health data collected through the process. In late January 2021, after news reports drew attention to that company policy, the city said it had not been notified of the for-profit scheme and announced that it was terminating the partnership.

Philly Fights COVID had won the agreement with the city by beating out more experienced public health nonprofits. Among the other bidders for the partnership was the Black Doctors COVID Consortium, an organization of physicians and public health nurses who were fighting to ensure that testing and vaccine distribution would be equitable and would reach Philadelphia's most at-risk residents, in particular those in Black and brown communities.

The fallout from the Philly Fights COVID scandal was swift—the city's deputy health commissioner was forced to resign, and the commissioner followed a few months later. Doroshin was banned from doing business in health or government in Pennsylvania for a decade, fined $30,000, and ordered to destroy all of the data collected by the company. But more damage had been done to the already shredded public trust in the stewardship of health data.

For years, human rights and privacy rights advocates have voiced alarm about the increasing prevalence of data-sharing arrangements between governmental bodies—such as public health and social services departments, or criminal justice systems—and Big Data corporations that collect and share data without the knowledge or consent of millions. These agreements often result in intrusive surveillance and punishing control of vulnerable groups.

Although the pandemic has given rise to some instances of profiteering by relatively small-scale operators such as Philly Fights COVID, most of these initiatives are public-private partnerships involving powerful technology companies, such as Palantir and Alphabet, or credit bureaus like Experian. And when there is no legislative or regulatory power to hold those who misuse data to account, or when abuses are officially sanctioned, there is no reason for citizens to trust such initiatives, especially those that involve handling health data. These arrangements essentially deliver patients on a platter to the corporate surveillance state, especially the most vulnerable patients.

POROUS LAWS, DATA BODIES

The crisis around Big Data's efforts to embed itself into the US health care system, allowing corporate intermediaries to access and commercialize data, started well before the pandemic began in 2020. The laws that shield health data from intrusions on patient privacy or autonomy are so fragmentary as to be functionally nonexistent.

The Health Insurance Portability and Accountability Act (HIPAA), for example, secures the privacy of a patient's identifiable information if it is in the possession of a health care provider or health insurer, but it does not extend data privacy protections to personal information that is produced or captured outside of clinical settings. The security and privacy of data held in other sectors, such as finance or education, are regulated under separate laws. There are gaping holes in these laws for our health data to slip through. And early on in the pandemic, some elements of HIPAA's privacy regulations were suspended so that practitioners could more easily treat patients through telehealth options, since many clinics and health centers were on lockdown.

Data produced and captured outside of clinical settings includes a lot of what could be understood as "health data." Any purchases made at a retail pharmacy or even a grocery store, using a debit or credit card, are not covered by HIPAA, even if those purchases are in some way connected to health. Essentially, all consumer data can be—and are—considered health data. Big

Data companies often make inferences about a consumer's health from virtually any bit of data about Internet surfing or shopping behaviors that can be captured. But because these data are not produced or held by an entity covered by HIPAA, they are often not regulated under the law's provisions.

Just how porous are privacy protections for health data? My own harrowing experience demonstrates the everyday harms of health data surveillance. About a decade ago, I was finally pregnant, after undergoing four years of increasingly invasive reproductive medical procedures. Every step in my efforts to conceive, and to keep a pregnancy, was closely monitored and tracked by Big Data.

I could see my doctor entering clinical data into my electronic health record on her computer while I was lying on a gurney. I also knew that my health insurer was keeping track: each bill I received noted all the procedures or fertility drugs that my policy paid for or did not cover (and virtually nothing was covered). What I did not know at first was that my health was being tracked without my consent by entities just outside the health care system, but close enough to breach what I perceived as my health privacy. But soon, Big Data let me know that it was watching my pregnancy closely.

There are gaping holes in these laws for our health data to slip through.

At six weeks, my doctor performed an ultrasound—rather early for a scan for most women, but with my history of miscarriages, and since I was enrolled in a clinical trial studying the efficacy of a drug used during the in vitro fertilization process, she wanted confirmation that the fetus was developing at an expected growth rate. After the appointment, I returned home to find that a free sample of baby formula had been delivered in the day's mail. Maybe I was still enthralled by seeing the fetal stem on the ultrasound monitor; though I was surprised and even a little curious about how marketers had already figured out that I was pregnant, I wasn't too alarmed.

But when I received a free annual subscription to a parenting magazine at the tenth week of the pregnancy, and in the middle of a miscarriage, I was crushed, horrified, and angry. That was the day I learned that all of us have two bodies, a physical body and a data body. My data body—composed of the digital breadcrumbs that I dropped online or at my doctor's office—is, ultimately, owned, controlled, and sold by Big Data.

Big Data does not need a health tracker app to be downloaded, or a Google search about diabetes or pancreatic cancer to be done, in order to get hold of anyone's data body. Simply participating in the economy will cause you to lose control over your health privacy. I unwittingly shared my health-related information through credit card swipes at my doctor's office when I made a copayment, or at the pharmacy where I purchased pregnancy tests or fertility drugs, or through GPS coordinates showing that my cell phone was inside a fertility clinic. This allowed data brokers, like consumer health information marketers Axiom or IQVIA, to capture my data.

Data brokers also include credit bureaus that purchase transactional data from millions of credit and debit card transactions under business-to-business agreements. Pharmacies sell prescription data—stripped of patient information, but not of the information that shows which doctor prescribed the drugs—to data brokers such as Experian. As one of the largest credit bureaus globally, Experian claims to own data on 98 percent of American households in its databases of segmented consumer information.

Data brokers combined transactional and prescription data from my consumer and health care purchases with perhaps thousands of other data points that they held about me in their databases. Then they sold my profile indicating that I was "pregnant" to marketers or to anyone with the money to purchase my information. The data brokers and marketers that accessed my health data assumed that I experienced an uncomplicated pregnancy and had given birth at full term to a healthy baby. For nearly five years, I watched as my "baby" grew and thrived through infancy, toddlerhood, and was getting ready to enroll in preschool, the last time I heard from it, all through the direct marketing offers that I received almost weekly. There were offers for child life insurance and coupons for baby clothes sent directly to me through the mail and in emails, and online ads for educational software for preschoolers.

For those five years, I lost all autonomy over my health and other highly personal data, and any right to keep private one of the most intimate and

painful experiences of my life. My dead baby's own data body lived on in databases and could be reassembled at will by marketers to haunt my doorstep or computer, in a bid to make me buy things. While I was mourning the loss of my pregnancy, I was tormented by a sense that I had no privacy or autonomy over the most private aspects of my life, my reproductive health. This data sharing was perfectly legal ten years ago when I miscarried, and it continues today as standard industry practice.

CRIMINALIZING HEALTH DATA

In the early days of the pandemic, there was some hope that things might change with respect to the inequalities in American health care, at least with regard to how health data are used to help to protect and save lives in the United States. But in many ways, the pandemic only helped to exacerbate the harmful effects of capitalist surveillance and the data economy. The five biggest Big Data companies made a combined $1.2 trillion in 2020 alone.

After the Supreme Court overturned *Roe v. Wade* in late June 2022, denying millions a constitutional right to access basic health care, the harmful implications of pervasive data surveillance and commercialization of private health data became even more chilling. Now, more than at any time in the last fifty years, human and privacy rights, including health data privacy, are imperiled in the United States.

Without the federal protections of *Roe*, up to 26 states could make obtaining an abortion a crime, according to the Guttmacher Institute, which tracks abortion rights legislation across the United States. (As of August 2022, 10 states had already done so.) This means that authorities could use Internet searches in those states as evidence of a pregnant person's conspiracy to commit a crime—the crime of making a personal and private health decision. Such evidence could include ordering abortion pills, consulting a telemedicine abortion provider, or searching for flights to visit an abortion clinic in a neighboring state.

In August 2022, just weeks after *Roe* was overturned, the online magazine Motherboard reported that authorities in Nebraska had served Facebook's parent company, Meta, with a warrant ordering it to hand over direct message data as evidence in an illegal abortion case. The case involved a mother who helped her 17-year-old daughter obtain a medical abortion at home in June. In the face of the increasing threat of authorities seeking warrants to obtain such data held by Big Data companies as evidence of "criminal" health care activities, organized workers at Google publicly demanded in August 2022 that parent company Alphabet immediately delete all personal health data in its possession in order to protect Google users from potential future harm.

Furthermore, state governments and federal agencies can—and do—purchase health information from data brokers without a warrant. This practice exploits a gaping loophole in federal privacy regulations. It also undermines Supreme Court rulings that authorities need a warrant to compel companies to hand over sensitive data.

In 2021, the migrant rights organization Mijente, through investigations in cooperation with news website The Intercept, revealed that ICE agents had purchased from broker LexisNexis personal data, including health information, on thousands of undocumented residents of Denver, a sanctuary city that prohibits the unwarranted sharing of data with federal agencies. The investigation also found that LexisNexis had sold data on millions of Americans—not just residents of Denver or those alleged by ICE to be in breach of immigration laws—to federal authorities. Together with a coalition of other immigrant rights and legal rights organizations, Mijente is suing LexisNexis to stop this practice.

Much more needs to be done to protect the privacy and autonomy of Americans' health data. So far, only five US states—California, Colorado, Connecticut, Utah, and Virginia—have passed legislation that recognizes the privacy and bodily autonomy rights to personal data. This underlines how fragmented privacy legislation is in the United States. An individual's privacy rights, concerning either their data or their reproductive health, depend on which state they live in. In late 2021, a piece of legislation to protect privacy was introduced in Congress, but the bill, known as the Data Protection Act, is stalled in Capitol Hill gridlock.

The majority opinion in *Dobbs v. Jackson Women's Health Organization*, the Supreme Court ruling that overturned *Roe*, claimed that health care, when it comes to abortion or privacy in making decisions about one's health, is not a constitutionally protected right. But legal scholars have argued that the resulting removal of federal protections for the basic human rights of millions of

Americans appears to be in direct violation of the equal protection clause of the Fourteenth Amendment, which applies to all US citizens, no matter what state they happen to reside in.

FIGHTING FOR PRIVACY

There is nothing private about our health in the political economy of digital data. This was true before the pandemic, and it remains so after the fall of the fundamental right to access abortion as a form of health care. Digitized data are shared at the speed of light—they are mobile and "frictionless," as Silicon Valley data profiteers like to say. Our data, all of it, is the new oil fueling health capitalism in the United States.

After the end of *Roe*, many Democratic lawmakers are increasingly pressuring Big Data to stop tracking pregnant people. These piecemeal efforts are not enough. Big Data companies are in many respects more powerful than legislators, and easily resist most political pressure. It is more profitable to hold onto and monetize health data, and to use it to harm rather than to heal, than it is to gain the trust of millions of Americans by deleting their data profiles.

In the eyes of most doctors, care providers, medical researchers—and above all, patients—health data should be produced to save lives, not to be commodified and sold as evidence, and certainly not to criminalize people seeking health care. To truly protect the privacy and autonomy of every individual's health data in the United States, Americans need significantly stronger privacy protections at the federal level: uniform, omnibus legislative protection that covers all data across every sector.

The COVID-19 pandemic has demonstrated the urgent necessity of using health data and public health surveillance to control the spread of deadly viruses, as well as to identify communities at high risk to ensure they receive the health care they deserve. But this needs to be carefully balanced against individual rights and autonomy, especially with powerful companies and unscrupulous profiteers seeking to take advantage of a crisis. Such a balance will only come about with collective action: with privacy rights organizations, patient advocacy groups, health care practitioners, and people who have been harmed by weaponized data working together to stop Big Data. ■

A Slow Disaster Historical Experiment

SCOTT GABRIEL KNOWLES AND JACOB STEERE-WILLIAMS

"When my predecessor got COVID, he had to get helicoptered to Walter Reed Medical Center. He was severely ill. Thankfully, he recovered. When I got COVID, I worked from upstairs of the White House." This was the upbeat message delivered by US President Joe Biden as he emerged from his five-day COVID-19 quarantine on July 27, 2022. Biden "got through it with no fear" and only what he described as "very mild discomfort because of . . . lifesaving tools," including booster shots, at-home tests, and treatments such as the antiviral drug Paxlovid. It was a remarkable, if compressed, history of the present. One disease, two US presidents less than two years apart, health surveillance technology, medicines, and multiple effective vaccines—and at least 5.3 million people worldwide (or as many as three times that number, depending on the source) dead in the interval. Disasters are exactly this type of historical complexity in the making—entangling fear and triumph, death and survival, and distorting reliable analytical containers of time, politics, and geography.

If you ask a disaster historian to predict the end of the pandemic, you are likely to get the reply: "Which pandemic?" We recognize the braided connections visible in the persistence of emergency plans, institutions for health care, and research programs—founded in one disaster and relevant to the next, and the next. We see links across time in the work of both institutions and individual doctors, such as Anthony Fauci, who led the US National Institute of Allergy and Infectious Diseases when the HIV-AIDS disaster arrived in the 1980s and leaves the same job at the end of this COVID Year 3.

We look for longer connections, too, lines harder to trace, leading us back to the 1918–19 influenza pandemic. Fauci, with coauthors David M. Morens and Jeffery K. Taubenberger, argued in a 2009 article that the "1918 influenza virus and its progeny, and the human immunity developed in response to them, have for nearly a century evolved in an elaborate dance. . . . This complex interplay between rapid viral evolution and virally driven changes in human population immunity has created a 'pandemic era.'"

We see value in looking to the deeper past as well. Exciting new work involving ancient DNA by scholars like Monica H. Green takes us back to the Black Death of the fourteenth century and before. Green's effort to understand the social and geographical contexts of disease origins prompts us to question why certain narratives of disaster persist while others fade away. The Black Death, for example, commonly understood to have started in 1347 and ended in 1351, has been recast as a longer-term disease event, one that had a broader impact outside of Europe.

Keeping time in mind isn't easy when the deep past is murky and the immediate present is visible but no less confusing. One way through the haze is a "slow disaster" approach, conceptualizing every disaster as both an event in itself and a continuity of unresolved previous disasters still in motion at different speeds. Climate change provides a perfect illustration: the droughts, fires, and weather extremes we face every year are disasters, to be sure, and they are part of a slower process of carbon acceleration and global warming.

The COVID-19 pandemic is the same. The disease struck the world at a particular time and across multiple geographies, but its individual trajectories of death and suffering wandered different courses depending on deep histories of racial violence, poverty, health care availability, and a hundred other historical inheritances. To accept this reasoning, one must break down the supposed boundaries between poverty and a disease

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outbreak. For millions around the world, poverty is the slow disaster they live with every day—the outbreak is but another symptom of disaster against this slow-moving backdrop. In this way of thinking, disaster is a combinatory social process that makes suffering and damage, not an outcome of some mysterious external forces.

By taking a time-sensitive approach to the disaster, we gain the critical capacity to see what power struggles are at play in the rush-to-the-end pandemic narrative. As historians Andy Horowitz and Jacob Remes point out in their new edited volume *Critical Disaster Studies*, disaster history ultimately leads us to the moral debates of our own time. "Whose deaths ought to inspire outrage, and whose resignation?" they ask. "What kinds of suffering are a legitimate cost of the status quo, and what kinds of suffering ought to suggest that the status quo itself is illegitimate? The pandemic only makes these enduring questions more urgent."

History at the service of politicians and the popular media is often focused on inflection points and tidy beginning/middle/end narration. Disaster history is especially susceptible to this manipulative telling of history. If a disaster is an unwanted force of destruction, who in their right mind wouldn't want it to end as abruptly as it may seem to have arrived? Biden, just like Trump before him and elected leaders around the world, faces tremendous pressure to declare the end of the disaster. Trump predicted the end of the pandemic many times, and found compliant economists and doctors (if fewer infectious disease specialists) to corroborate his promises. Biden, too, in July 2021 gestured toward the "end" of the pandemic. In a September 2022 television interview, he said, "The pandemic is over." But in reality, public health experts have known since 2020 that COVID-19 was not going to magically disappear in that year or even the next. They had the surveillance data to prove it, and they had the history of infectious disease behind them.

Late in 2021, popular media around the world began to recategorize COVID-19 as an "endemic" disease. This refashioning of the deadliest and most devastating pandemic in recent history continues well into 2022. But what does "endemic" mean, and why is the term being used at this moment? Epidemiologists have struggled to form a consensus on the term, whereas in popular discourse, endemic has come to mean benign and "normal." Yet endemicity has long been an epidemiological concept used to categorize and explain the distribution of disease in populations. The term was yoked in the nineteenth century to colonial and later tropical medicine. Endemicity has long been used geopolitically by Western public health officials to describe diseases common to the global South that pose a threat to the global North.

CALLING IN THE EXPERTS

The COVIDCalls podcast (www.covid-calls.com) launched in 2020 and quickly enrolled the help of hundreds of collaborators, working to document the pandemic in all of its empirical and moral messiness on a day-to-day basis. With one of the present authors (Knowles) as host (joined by others, including Steere-Williams on many occasions), and experts from public health, history, journalism, and dozens of other areas in the digital guest's chair, the goal of the podcast was to hold meaningful daily conversations about the pandemic and its broader context, as well as to blur the lines between the research product and the field notes. As a historical method, the interviews themselves—roughly 10,000 words of transcript per episode—invite the world to a discussion in real time while simultaneously filling an archival shelf.

Every disaster is both an event in itself and a continuation of unresolved previous disasters.

At 501 episodes and counting, COVIDCalls captures details we were afraid we would forget or shave away later as we compose more formal academic publications. It opens up the space for many more voices in making sense of the disaster, and it allows for an iterative process—always appropriate, but especially so in a disaster with the temporal weirdness of this pandemic. It also creates a venue for journalists to find researchers, and vice versa, as well as a space for trial and error—getting wildly divergent perspectives together, working within, across, and outside of disciplines. We talk in detail about teaching in K-12, university, and informal settings; provide a space where artists present new work; and hear from guests, like policymakers, who were and are actively shaping the political contexts of the pandemic. It is a way to do longitudinal work (guests returning for multiple calls), and to try to move beyond our North American–centric viewpoints.

Among the disaster history threads we followed on COVIDCalls, one where we find a century of

activity crammed into two years is the development of, and politics surrounding, the COVID-19 vaccines. In December 2020, the US Food and Drug Administration (FDA) authorized two mRNA vaccinations for emergency use to protect individuals 16 and older from SARS CoV-2, the causative virus of the COVID-19 pandemic. The *New York Times* called it a "turning point in the pandemic," and many in the scientific and public health communities believed that the technological solution of safe, effective, and widely available vaccines would either end or drastically reduce infections and deaths. Across the United States, both public health officials and state governments looked to the vaccine solution as a magic bullet that would bring the country, in an oft-heard phrase, "back to normal."

In the weeks and months leading up to the rollout of the first COVID-19 vaccines, during the widely anticipated development phase, many public health experts believed that in spite of heated political debates over mask wearing and stay-at-home orders, the majority of the American public would trust the science around vaccines once they were FDA-approved and available. Such collective hubris overlooked long-standing historical patterns of hesitancy around the smallpox and measles-mumps-rubella (MMR) vaccines, as well as short-term, pre-pandemic public health warnings. In January 2019, for example, the World Health Organization listed vaccine hesitancy as one of the leading global health threats, alongside the likes of air pollution, climate change, and warfare. That year also saw repeated, high-profile though small-scale measles outbreaks that originated with skeptical parents refusing to vaccinate their children.

The writing was on the wall, in other words, about public mistrust of science, long before the COVID-19 vaccines. Public health officials in the United States, relying on a technologically deterministic claim to authority, failed to see that addressing mistrust of science is a basic step toward sound public policy. In the words of philosopher of science and medicine Maya Goldenberg (a COVIDCalls guest in 2020), the pandemic has been a "clear global test case in public trust between health and government bodies and members of society." Pandemic journalist *par excellence* Ed Yong (also a COVIDCalls guest), writing in *The Atlantic* in late December 2020, warned similarly that "as vaccines roll out, the US will face a choice about what to learn and what to forget."

Shortly after the FDA approval of the vaccine, two key public policy questions emerged: how to scale up and distribute the doses, and whether local, state, or federal governments could (from a legal perspective) and should (from a moral perspective) make the vaccine mandatory for those eligible. On January 8, 2021, our team spoke to Dorit Rubinstein Reiss, a professor of law at the University of California, and Ross Silverman, a professor of health policy and management at Indiana University. The conversation explored the implications of the turn away from mask mandates, business restrictions, eviction protections, and stimulus payments as vaccination became the priority in the United States, creating a situation where safety precautions are the purview of individuals, not the state. Silverman called vaccine mandates a "blunt instrument" of public health, arguing that public health officials instead should focus on communicative strategies and policies to reduce individuals' barriers to getting vaccinated.

Vaccines, vaccine hesitancy, and public health communication around vaccines became a central theme of COVIDCalls throughout 2021 and well into 2022. We spoke to historians of vaccines, bioethicists, and legal scholars. In Episode 204, for example, we interviewed historians of medicine Alisha Rankin and Carla Keirns, who explored the deep historical ways in which mistrust has long been part of debates over vaccines, from eighteenth-century smallpox inoculation to the 1950s polio vaccine and the 1960s MMR vaccines. "The issue of trust," Rankin argued, "is a thread in the history of vaccination . . . when you don't have trust is when you run into problems in vaccine hesitancy."

NO TRIUMPHANT ENDING

By Episode 486, on March 28, 2022, we were reflecting on what many scholars had warned about from the outset: the biotechnology of the vaccine fundamentally had not solved the pandemic crisis. Any future COVID timeline that triumphantly ends with the vaccine rollout will trample the nuances of a disaster history we have all lived and recorded.

As COVIDCalls continued, discussions on vaccines crystallized the importance of viewing pandemic crises through the slow disaster framework. The podcast provides a unique, week-by-week archive of the pandemic since early 2020. But more than that, COVIDCalls demonstrates how conversations among historians, policymakers, public health experts, and artists can help us

understand and perhaps make an impact on public health policy.

Vaccine hesitancy and lack of trust in bioscientists and scientific institutions were not created by the COVID-19 pandemic, even if the crisis brought them to the fore and bred mistrust in a political climate swirling with myths and misinformation. As of August 2022, only 67 percent of the American population has been vaccinated against COVID-19. To paraphrase Yong, what have we learned, and what have we forgotten? ■

American Exceptionalism Redux

JENNIFER DELTON

I have been teaching a course called "Plagues and Contagion" since the pandemic hit in 2020. What my students and I have learned over two years is that people have almost always resisted being locked up in quarantine. This was true even in societies such as medieval England or Ottoman territories where "individual liberty" was unknown, much less a guiding value. People have always condemned policies that closed businesses. In the eighteenth-century Atlantic world, those on the "progressive" side of the issue condemned quarantine as an outdated, primitive practice that impeded trade and encouraged bigotry. They were called "anti-contagionists" because they believed that disease arose from unsanitary environments, not foreign merchants. Human beings also have long argued about the dangers of injecting small bits of infected material into their bodies to stave off an illness, a process we call inoculation or vaccination. During the Spanish Flu pandemic, large numbers of people flouted mandatory mask rules not just in the United States, but also in South America and Europe.

Unmasked: COVID, Community, and the Case of Okoboji
Emily Mendenhall (Vanderbilt University Press, 2022)

Nor have modern advances in science and disease management succeeded in changing this behavior. Regardless of scientific evidence, people continue to resist mandates that impinge on bodily autonomy. People around the world remain unconvinced that scientific expertise validates authorities' power to impose quarantine, vaccination, or other public health protocols on them. This has been the biggest lesson from the class. Humans gonna human. Conflicts over public health protocols are not new; they have not been caused by the Trump administration or Americans' misguided attachment to "freedom."

That is *not* the message of Emily Mendenhall's examination of the COVID-19 pandemic as it played out in western Iowa. Mendenhall is a medical anthropologist who grew up in Okoboji, Iowa. While visiting her hometown in the summer of 2020, she was struck—overwhelmed, really—by the lack of mask-wearing and social distancing exhibited by most of the people in the town. Combining her anthropological expertise with hometown loyalty, she endeavors to get to the bottom of this dismaying conundrum. What drives communities to reject sound medical advice? Is it politics? Regional identity? Lack of federal leadership? Social pressure? Psychology? Privilege?

What she ends up with is a highly readable, generous, and empathetic portrayal of a community in pandemic turmoil. Though it is not objective in the traditional anthropological sense, there is an urgent authenticity to Mendenhall's investigation—one driven by a question that many of us have felt and continue to feel. How can people who seem utterly rational and kind have opinions about masks, vaccines, and the pandemic so at odds with our own?

Mendenhall is honest and open about her perspective. She is a professor of global health at Georgetown University, an active member of the academic health community. She has friends and colleagues who worked with the Obama administration to put together plans for an international health emergency, such as a pandemic. She was distraught to see the Trump administration not only ignore these plans, but even scoff at the severity of the virus. She has great faith in medical experts and public health professionals, a faith rooted in rational evidence as well as an ethos of caring. Why don't others share this faith? To find out, she interviewed those in Okoboji who agreed to talk to her.

Mendenhall does a fantastic job representing the diversity of viewpoints in this conservative part of western Iowa. She shows that people's

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views were not wholly determined by partisanship. Many Trump supporters were in favor of masking or closing businesses temporarily, for instance; they took the coronavirus seriously and sought to stop its spread. Town leaders often set aside their own views to find consensus among a community divided by how to keep people safe from the virus without damaging the local economy. Mendenhall admits that people have different assessments of risk, even when they have correct information. She understands why Iowans, regardless of their politics, were frustrated by public health leaders' overconfident certainty and "we're still learning" flip-flops.

What Mendenhall concludes from her research, however, is that had there been a stronger unified federal response, one based on science—or at least based on public health leaders' consensus of what the science was saying—these Iowans would have had more confidence in public health officials and accepted their policies rather than assessing risk according to their own individual interests, which led to confusion, division, and needless deaths. Had there been strong leadership from the national or state governments, hundreds of thousands of deaths could have been avoided, Mendenhall concludes.

How do we explain Americans' zeal for vaccination and science in the twentieth century?

To explain the lack of unified governmental protocols, Mendenhall calls on social scientists like Jonathan Haidt, Francis Fukuyama, and others, who show how "identity," resentment, and tribalism prevent people from embracing rational—that is, scientific—arguments about public health. She examines the latest works of scholarly research on anti-vax movements. She looks at the politics of whiteness and inequality. In other words, she consults experts to explain why people reject experts.

One thing I discovered while putting together a Plagues and Contagion syllabus is that historians writing from the 1980s into the 2010s were as skeptical of experts and "science" as folks in Okoboji. Whether writing about plague in early modern England, tuberculosis in nineteenth-century New York, or twentieth-century efforts to eradicate smallpox and polio in developing countries, historians have focused sympathetically on those hurt by or resistant to policies that ended up serving the interest of social and political elites. Policies designed to contain disease invariably contained and targeted marginalized populations, such as immigrants, racialized "others," or lower economic classes. Backed by "science" and cloaked in "progress," global health policies served the interests of imperial Europe and Cold War capitalism.

There is a whole school of historical analysis critical of the anti-democratic cult of the "expert" in Cold War America. There is a generation of historians (mine!) who were taught to put words like "science" and "rationality" in quotes to highlight how they underwrote the West's global authority. I mention this not to criticize Mendenhall (who acknowledges this history), but rather to note how slippery the politics of public health are, and how inadequate social science "evidence" and expertise are in explaining the varied reactions to governments' pandemic policies.

RUGGED INDIVIDUALISM?

Mendenhall herself is not completely satisfied by the social scientists she cites. She leans more heavily on the concept of American individualism to explain what she sees as Americans' obsessive defense of "freedom" and unconcern for the welfare of others. Echoing political scientist Louis Hartz, author of the 1955 classic *The Liberal Tradition in America*, Mendenhall laments Americans' outdated and inefficient suspicion of the federal government, and their refusal to recognize how government could further the collective good.

Mendenhall points to Iowa's pioneer settler history to explain the continuing myth of self-reliance and rugged individualism that led the state government to abdicate pandemic leadership. Like Hartz, she sees this individualism as unique and exceptional, as something that explains why Americans aren't more like Europeans, who are (presumably) comfortable with centralized government and welfare states. Mendenhall is not alone in embracing this explanation for why so many Americans refused to follow guidelines from the Centers for Disease Control and Prevention. It is a common refrain from pundits, academics, the *New York Times*, and Skidmore College students.

But if "rugged individualism" is so intrinsic to American public health outcomes, how do we explain state laws that made vaccination mandatory for students throughout the twentieth century? How do we explain that US courts

consistently upheld states' rights to compel vaccination, quarantine, and even sterilization for the larger public good (with some medical and religious exemptions)? In the battle over compulsory vaccination and public health, the US government in the past consistently sided with community good over personal liberty.

Ironically, Hartz articulated his vision of American exceptionalism during the Cold War era—an era of extreme conformity when the American political regime was most committed to a strong centralized government that provided social welfare to the masses, supported labor unions, redistributed wealth through a progressive income tax, and built one of the largest national security/military states in the history of the world. This was an era when the United States was *most* like Europe and least "exceptional." It was also an era when Americans readily embraced the promises of science, medicine, and vaccinations. The 1950 film *Panic in the Streets* features Richard Widmark as a US Public Health Service doctor (in uniform!) whose heroic and manly contact-tracing stops a plague outbreak. I know it is only one film, but everything about it suggests Mendenhall's vision of how things might have—should have—gone in the current pandemic.

A better example of Americans' enthusiasm about medical science and vaccines in the Cold War era is the response to polio, which challenges Mendenhall's suggestion that an ingrained American exceptionalism is somehow at the root of COVID-19 turmoil. President Franklin D. Roosevelt, whose administration expanded federal government power, was a victim of polio and appointed lawyer Basil O'Connor to address the calamity of annual outbreaks. O'Connor created the March of Dimes to raise funds for victims' care and to prevent polio's spread. Though it was not a government program, it was one of the first national campaigns against a disease, and it deployed a slew of public-relations professionals to educate (some historians say scare) people about the horrors of infantile paralysis. Although poliovirus was highly contagious, only a quarter of those infected had any symptoms, while even fewer—less than one percent—were affected by the disabling paralysis that was the focus of fundraising. As with COVID-19, however, the virus could be spread by asymptomatic people, so the public health priority was to eliminate poliovirus through vaccination.

In April 1955, Dr. Jonas Salk created the first polio vaccine, which was greeted as a medical miracle. Parents lined up their children to get vaccinated. Previously active anti-vax organizations were mostly silent. Even after a bad batch of Salk's vaccine paralyzed 200 children in California and Idaho and killed 10 (in what was known as "the Cutter incident"), people still wanted to get their kids vaccinated! This is all the more remarkable given how rare paralysis and death from poliovirus actually were.

Few objected as states mandated an expanded slate of modern vaccines for public school students. Mandatory vaccines became the norm, and while there were always detractors, there was also a widespread consensus about the real benefits of medical science and progress. Indeed, the US-led effort to eradicate polio and smallpox in developing countries around the world was a positive good that (along with anticommunism) helped "sell" the Cold War and US power to the world and once-isolationist Americans.

To turn Mendenhall's question around, then, how do we explain Americans' seeming zeal for vaccination and science during the twentieth century? In the global history of vaccination and public health, this widespread acceptance seems to be the real exception. To be sure, the public health directives that became norms were issued by state and local governments, not federal agencies. But they were introduced in an era of tremendous national pride and unity, upheld and fostered by a liberal Cold War state that prized and funded education, medical progress, expertise, science, and rational thinking.

This is not the place to explain or argue about what happened to that unity and purpose—long the focus of boomer nostalgia from Oliver Stone to Steven Spielberg to Donald Trump. But it is worth noting that the Cold War era created a society that could accommodate both MAGA-type patriots and a commitment to science and community health, while still inspiring a common belief in a better future. I suspect the root of the divisiveness seen in communities like Okoboji was not American individualism, or even tribalism, but rather the pessimism of an empire in decline. ■