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CURRENT HISTORY

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COMING IN DECEMBER

The Middle East

IF ANY REGION has been especially exposed to the COVID-19 pandemic, it is the Middle East. Wars in Iraq, Syria, Yemen, and Libya have destroyed basic infrastructure, displaced millions of people, and left many with compromised health. Rivalries among the most powerful states have precluded cooperation against the contagion. Sound governance is scarce, and its absence imposes heavy costs, as the devastating August blast in the port of Beirut demonstrated. Yet local communities have mobilized to help each other through recurring crises—in Lebanon, for example, long-established refugees are coming to the aid of new ones. *Current History*'s December issue will cover these developments and more across the region. Topics scheduled to appear include:

- **Migrant Workers and the Pandemic in the Gulf**
  Zahra Babar, Georgetown University–Qatar
- **Refugees Help Their Own in Lebanon**
  Elena Fiddian-Qasmiyeh, University College London
  Yousif M. Qasmiyeh, University of Oxford
- **Iran's Pandemic Struggles**
  Kevan Harris, University of California, Los Angeles
- **The Saudi Heir Apparent Runs into Trouble**
  Madawi Al-Rasheed, London School of Economics
- **The Region's Social Protection Deficit**
  Rana Jawad, University of Bath
- **Egypt's Real Affliction**
  Khaled Fahmy, University of Cambridge

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"The more countries let their citizens live precarious lives . . . the more likely it becomes that any sudden shock, like a pandemic or an earthquake or flooding caused by rising oceans, will plunge a greater share of their populations into poverty."

The Poorest After the Pandemic

ANIRUDH KRISHNA

The coronavirus pandemic has cruelly exposed the vulnerability of poorer people facing unforeseen shocks and natural calamities. Images of families with small children walking hundreds of miles to reach the sanctuary of their home villages will be associated forever with the world's experience of the coronavirus.

Everywhere, even in the remotest habitations, the virus has made itself known. For months, while the disease seethed outside, people hunkered down inside their homes. In the beginning, some—especially the wealthy—treated the situation like an unforeseen holiday. People caught up with their families, cooked big meals, played cards, and had fun.

As the days turned into weeks, and the weeks into months, however, a grim reality set in: many of those who were hunkered down at home were not getting paid. Households started feeling the pinch as savings and food stocks ran low. Some fell ill. Many became poor.

As factories and offices were shut down and production ground to a halt, experts predicted a vast growth of global poverty. Before the pandemic, a total of 630 million people were living in what the World Bank terms "extreme poverty," on less than $1.90 a day. (Different poverty lines—$3.20, $5.50, and $11 per day—are appropriate for countries at disparate levels of per capita income.)

My concern here is with the poorest in the world, those in extreme poverty or just above. I confine my discussion to developing countries and $1.90-a-day poverty. But the logic and the issues are similar at different levels: the same forces drive people into poverty in richer countries.

Forecasts of the coming increase in extreme poverty issued during the early days of the pandemic ranged from a low figure of 40 million people to a high of 420 million (representing a 75 percent increase). In the early days, though, few, if any, leading voices were predicting that six or even nine months later we would still be hunkering in place, people would still be getting sick and dying of COVID-19, and the economic dislocation would continue as lockdowns were lifted and then reimposed.

It is difficult to estimate these numbers accurately; so much about the pandemic is still in flux. What we can identify with more certainty are the pathways that lead people into poverty—and the degree to which each pathway is open or closed in different countries. To what extent a country's population is at risk of falling into poverty can be assessed in this manner. Policies can be set accordingly.

Having experienced the twin health and economic shocks of the COVID-19 pandemic, countries would be well advised to introduce or strengthen policies to make their societies more resilient to future shocks. Building decent, accessible health care systems, making work less precarious, and promoting social mobility are some of the most important steps that can be taken.

USEFUL LESSONS

These assessments are supported by prior studies that mapped households' pathways into and out of poverty. I have been associated with this enterprise for 20 years. Together with a group of scholars and practitioners, I have studied the long-term poverty trajectories of more than 40,000

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households in Asia, Africa, and North and South America.

Some findings from our investigations are particularly relevant here. First, these studies made clear that poverty is dynamic: it is regularly both removed and created. Pandemics and other calamities come along once in a while, but people constantly both fall into poverty and rise out of it. This simultaneity is a basic feature: even as one household moves out of poverty, another household, just down the road, becomes poor.

Second, we found that people usually do not fall immediately into poverty. Instead of being sudden and precipitous, the descent more often occurs in stages. People adopt different coping mechanisms to deal with deepening stages of poverty. In the first stage, after expenditures have markedly increased or incomes have dropped off, a household dips into its savings and takes out small interest-free or low-interest loans from friends and family. When poverty persists, the household takes on larger and more expensive loans, often pledging assets as collateral. In the final, most serious, and hardest to reverse stage, the household sells its productive assets: in the case of farming households, the farm animals and machinery are first to go, and then the land itself.

Ill health and high health care expenses often result in descents into poverty.

This progression is related to the distinction scholars make between transient poverty and chronic poverty. Transient poverty, as its name implies, is fleeting: when you fall into it, you remain poor for a short period. To the extent that transient poverty will make up the bulk of the anticipated increase from the pandemic, there is less cause for worry. Chronic poverty, though, is a signally harsher experience. You are poor for a very long time; poverty becomes your usual situation. The foremost task of policy is to ensure that more people do not become chronically poor.

Third, our studies found that movements into and out of poverty are asymmetric in terms of the underlying reasons. Different events are associated with escaping poverty and with becoming poor, respectively.

Two kinds of adverse events are especially relevant for falling into poverty: health events and livelihood events. Ill health and high health care expenses are associated with a large number of descents into poverty. A husband or a mother or a son falls ill; a chain of expenditures results; the household takes on debts and sells assets, which reduces its future earning potential, generating a downward spiral.

Livelihood events, especially job losses, also propel households' movements into poverty. An equally large or larger number of households will fall into poverty because of the job losses, temporary or permanent, brought about by the economic disruption that followed governments' responses to the pandemic. Many households originally overcame poverty when one of their members found a job outside the traditional household economy. The cash wages such individuals earned, coming on top of their households' traditional earnings from farming or a trade, represented their way out of poverty. Take away these wages, and many households will fall back into poverty.

The pandemic will push people down both of these pathways into poverty. Health events are obviously associated with the pandemic. Even before it struck, millions of households in dozens of countries, both richer and poorer, were living one illness away from poverty. The pandemic has increased these numbers vastly, not only among those who are infected by the virus, but also among those facing difficulties in getting regular care for other health problems. The second pathway into poverty, the livelihoods route, is also in play. Everyone who cannot bank on a protected paycheck is vulnerable to a descent into poverty. This includes the majority of workers in many countries.

Households that experience both kinds of adverse event—a job loss and a health event—are hit by a double whammy. Many are at risk of this fate during the pandemic. They are the ones most likely to fall into chronic poverty.

Government actions will make a critical difference. Aware that slides into poverty were imminent, governments across the world stepped up flows of cash and other forms of stopgap assistance, especially in the early days of the pandemic. In the short term, these measures can help keep people solvent.

What happens in the medium to long term, and the extent to which chronic poverty increases, will depend on the nature of each country's policy mix. Disparities in resources, expressed in countries' gross domestic product levels, do not make the major difference. The choices countries

have made, the policies and institutions they have in place, largely determine how poverty will be affected.

Looking at countries with populations of over 10 million, we can identify one group of countries that is especially vulnerable to large increases in extreme poverty due to shortfalls in health care policies and a second that will suffer mainly due to an inability to deal effectively with livelihood events. A third group, of greatest concern, will be vulnerable to both factors. This last group includes populous countries in sub-Saharan Africa and South Asia.

The Health Route to Poverty

Costs of different kinds are incurred when someone in a household falls seriously ill. Most directly, there is the cost of treatment—doctors' fees, hospital charges, pharmacy bills, and so on. In addition, the person who falls ill loses wages when she or he is unable to go to work. When that person is the principal income earner, the rest of the household shares in the suffering. And if that person were to die, the cost of the funeral is large enough in some societies to be a cause for financial ruin in itself.

In most cases, the cost of treatment is the largest part of the expenditure associated with a health event. Here is where national policies make a critical difference.

In situations where treatment is expensive, and where all or most of these costs are borne by the patient and paid out of pocket, the chances are greater that a household experiencing ill health will suffer a descent into poverty. Thus, the foremost indicator for assessing the effect on poverty is the share of treatment costs that comes from out-of-pocket payments (OOP). This share is very high in many developing countries: 77 percent in Nigeria, 74 percent in Bangladesh, 72 percent in Sudan, and 62 percent in Pakistan and India. In comparison, OOP is only 5 percent in Botswana, 6 percent in Rwanda, and 11 percent in Thailand.

Policies that make health care affordable, reducing the burden on patients and families, narrow the pathway that leads from health to poverty. Twenty years ago, the situations in Rwanda and Nigeria were fairly similar. Because of different policy choices, their situations are very different today. A Nigerian pays many times more out of pocket than a Rwandan does for the same medical treatment. Unlike people in Nigeria, Sudan, and Bangladesh, citizens of Rwanda, Botswana, and Thailand do not lose their shirts each time they need to get a loved one treated.

Another set of health care policies helps reduce morbidity and protect people from diseases. Countries with higher-quality health care systems can better protect their citizens against COVID-19 infections and deaths.

The general condition of a country's health care system is reflected in several quality-of-life indicators, including life expectancy, an easily available figure. Except for countries whose health care systems are highly unequal, life expectancy is a good proxy for the quality of care experienced by the average citizen.

Countries whose policies have resulted in simultaneously producing both high OOP and low life expectancy (the latter indicating a poorer-quality health care system, with higher infection rates and death rates expected) are the ones that will see the largest flows of people into extreme poverty due to health events. The subgroup of countries especially vulnerable to poverty on this account includes a number in Africa—Nigeria, Chad, Cameroon, Guinea, Ivory Coast, Sudan, Niger, Benin, Democratic Republic of Congo, Mali, Angola, and Uganda—and three across Asia: Afghanistan, Myanmar, and Yemen.

In some other countries that have high OOP and dualistic health care systems—where the rich and the poor live in disparate health environments (palaces and slums) and make use of different treatment facilities—health events can push a segment of the population into extreme poverty. Because poorer people are relegated to poorer health care and unhealthy living conditions, more of them are likely to suffer extended illnesses. And because out-of-pocket costs are high, a greater percentage will incur debts and be forced to sell assets, sliding into chronic poverty in order to get treatment for their loved ones.

The subgroup of countries with these features includes Guatemala, Honduras, Senegal, India, Bangladesh, Pakistan, and the Philippines. Compared with the first subgroup, however, the increase in extreme poverty on account of health events in this subgroup could be less severe. The existence of a higher-quality health care system within the same country, even if it restricts access in ordinary times, suggests that better remedies are at hand and better standards of care can be extended. Especially if governments help poorer people gain access to quality treatment at low or no cost, if only for the duration of a public

health emergency, calamitous descents can be averted. Bangladesh, for instance, has made provisions to underwrite the costs of all COVID-19 treatment.

In contrast to the situations prevailing in these two subgroups are the conditions in six other countries that were included in the list of 15 "safe-travel destinations" announced by the European Union at the end of June 2020: Algeria, Rwanda, South Korea, Thailand, Tunisia, and Uruguay. The health care situation is much better in these countries. Commonly, they have fewer COVID-19 infections and lower out-of-pocket costs. In other respects, these countries are very different; for instance, South Korea's per-capita GDP is four times that of Thailand and 30 times that of Rwanda. Getting the right policy mix for public health doesn't necessarily require that a country be rich.

The Livelihood Route

As the COVID-19 pandemic spread in the spring of 2020, governments imitated one another in announcing lockdowns—often, as in India, with hardly any prior notice—giving rise to widespread economic and social dislocation. When I spoke on the telephone with a man I know in a slum of Bengaluru, he told me that for the entire month of April he had been unable to go to the little store where he runs a tiny business, servicing and repairing mobile phones. His wife, who sells vegetables from a pushcart, had also been unable to earn any income. The police prevented them from leaving their home, except to buy groceries and other essentials.

Many workers will not have jobs waiting for them at the other end of the tunnel.

But where was the money to come from for buying essentials? The modest savings they had and the small amounts they could borrow from neighbors and relatives ran out in the first month of lockdown. Limited government assistance kept them afloat in the second month. By then, most people living in slums of different Indian cities who were interviewed by a team I lead said they had taken out loans and were mortgaging or selling assets, especially jewelry.

Remote working is not an option for those who make their livings as day laborers or security guards, mobile phone repairmen or street peddlers. If they are not at their places of employment, they have lost their jobs to all practical intents and purposes. People who lose their jobs and remain unemployed for a long period deplete their savings, run down their assets, and become increasingly unemployable. Livelihood events like the pandemic can cause a huge increase in chronic poverty.

Some countries are more vulnerable than others to increases in poverty on account of livelihood events. Countries whose policies have led to a large share of informal employment are especially vulnerable. People in informal jobs tend to lack contracts, social security, and legal protections. They are most often paid from day to day, with no paid time off and no fixed tenure.

Informal workers are those least likely to get their old jobs back at the end of the pandemic. For many of them, there simply is no record of employment. More than 90 percent of all workers in Benin, Bangladesh, and Senegal have informal jobs; more than 70 percent hold informal jobs in Nigeria, India, Guatemala, Honduras, Uganda, Kenya, Ethiopia, Mali, Ivory Coast, Ghana, and Haiti. In contrast, only 31 percent of workers in Mongolia, 38 percent in Brazil, and 40 percent in Mexico are in informal positions.

Not all informal workers are equally vulnerable to extreme poverty. Particularly exposed are the large numbers who inhabit a twilight zone between two poverty lines. These are the near-poor, who live on between $1.90 and $3.20 per day. Even as the number of people in extreme poverty fell to less than 10 percent of the global population by 2015, the share of the near-poor remained larger, at 16 percent.

The near-poor are more numerous in some countries. They make up 40 percent of the population in India, Bangladesh, and Ethiopia; between 30 and 40 percent in Nepal, Yemen, Nigeria, Sudan, and Pakistan; and between 20 and 30 percent in Kenya, Uganda, Tanzania, Mali, Haiti, Ivory Coast, and Senegal. The share of people in near-poverty is much smaller, less than 5 percent of the population, in Brazil, Mexico, and Vietnam, because of those countries' more effective poverty-reduction policies in the past.

People who are both informally employed and near-poor are at great risk of falling into extreme poverty. The biggest increases in extreme poverty on account of livelihood events are likely to occur in countries that have both a large informal sector

and many near-poor people. This group of countries includes Bangladesh, Benin, Ivory Coast, Ethiopia, Haiti, India, Kenya, Mali, Niger, Nigeria, Pakistan, Senegal, Sudan, Tanzania, and Yemen. Developing countries least likely to see increases in extreme poverty on account of livelihood events include Brazil and Mexico.

In other words, the pandemic may rage more fiercely in Brazil, but workers in Nigeria and India are more likely to fall into extreme poverty. That's because Brazil had previously enacted policies that more effectively protect its low-income workers. These policies included raising the minimum wage considerably; Bolsa Família, a conditional cash transfer program with positive impacts on health care and education; and a unified system of social assistance.

Doubly Vulnerable

The group of countries likely to experience the greatest increases in poverty numbers overall in the wake of the pandemic are those that are highly vulnerable on account of both health events and livelihood events. People in this small group of countries are more likely to be hit by the double whammy of falling into poverty and becoming chronically poor. These countries most at risk for large increases in extreme poverty include Benin, Ivory Coast, Mali, Niger, Nigeria, Senegal, Sudan, and Yemen.

Some other countries that give cause for worry are those with both high OOP and dualistic health care systems. Among them are Bangladesh, India, and Pakistan, which also display policy weaknesses related to livelihood events. The shares of informal workers and of the near-poor are both large in these countries, and there is little by way of unemployment compensation or job retraining. But by acting effectively and urgently, policymakers can reduce people's vulnerability to future poverty.

Building Resilience

As fear of the pandemic quickly spread across the globe, governments in the developing world began looking desperately for the right responses. Apart from the few with high-quality health care systems that had rehearsed responses to other epidemics in recent years—SARS in Thailand and South Korea, and Ebola in Rwanda—most countries were caught flat-footed. Following the herd, most governments imposed lockdowns, closed borders, and started distributing emergency food and cash assistance.

These stopgap measures will come to an end when the lockdowns finally end or when the aid budgets run out, but many workers will not have jobs waiting for them at the other end of the tunnel. Employers have been using this period to introduce the automation they had previously deferred or resisted. The growth of telemedicine, for instance, will reduce the roles of receptionists and check-in nurses. In many domains, there will be no going back to the pre-COVID era.

How can we ensure that the growth in transient poverty to be expected as the pandemic winds down, and as people deal with the turmoil associated with returning to work, does not get converted into chronic poverty? Over a longer term, what policies and institutions can be introduced to more reliably protect people against poverty while even giving them a boost upward?

Building back better after COVID-19 will require taking a longer-term perspective. The coronavirus has shown us what a twenty-first-century pandemic looks like, but there is no reason to believe it will be the last pandemic or widely experienced calamity. Climate change waits in the wings.

It is also worth noting that the new stresses on households during the pandemic have come on top of longer-term trends that were squeezing people in the lower half of the income distribution. Automation has been hollowing out employment in the middle for many years. Working-class people worldwide have seen their jobs become more precarious—with increased informality, more gig work, more short-term contracts. There is a need for policies that enable poorer people to deal more effectively with this emergent situation.

Policies are the prism between the pandemic and poverty. As the pandemic strikes them with equal intensity, countries have experienced different rates of poverty creation.

The pandemic has demonstrated that governments matter critically. The more countries let their citizens live precarious lives—lacking viable health care and assured unemployment coverage—the more likely it becomes that any sudden shock, like a pandemic or an earthquake or flooding caused by rising oceans, will plunge a greater share of their populations into poverty. This is true as much for richer countries as it is for poorer countries.

What policies can help make people more resilient? What can we learn from the examples of better-performing countries?

Three types of policies are required over different time horizons. Immediately, better health care

is necessary. Consider the six developing countries that were deemed safe travel destinations by the EU during the pandemic. Notably, what they have in common are not similar levels of GDP per capita, but affordable and accessible high-quality health care systems. In general, countries in which poverty is at the lowest level (in relation to different poverty lines) are not those with higher wealth or average income; rather, the key to their success is universal health care.

Since illness and high health care expenses are a principal reason for falling into poverty, it stands to reason that preventing poverty will require investing in effective, affordable, and universally accessible health care systems. System specifics differ. In countries such as Algeria and Thailand, the federal government pays mostly or entirely for health care. Other countries have different arrangements, including community-based health insurance in Rwanda, hospital-based *mutualista* programs in Uruguay, and employment-based contributions in South Korea.

The pandemic has demonstrated that governments matter critically.

A menu of options is available that other countries can adapt to their own conditions. Most importantly, when thinking about how to rebuild after the pandemic, countries should recognize the benefits of investing in publicly accessible health care systems that deliver adequate standards of hygiene, sanitation, health information, public safety, and vaccinations.

Second, the precariousness that informality brings into people's lives must be diminished progressively in scope and influence. Providing cash assistance and food support will help families cope better with the immediate crisis. Building resilience to future shocks will require policies that improve working conditions and reduce risks.

Formalizing the conditions of informal work little by little—by insisting on written contracts, making health care and retirement benefits available, and providing workplace protection—will help make livelihoods more stable and predictable. Poverty will beat a retreat when risk and uncertainty are better contained. Decent working conditions are an essential requirement for a good society. Better unemployment coverage and worker retraining policies are also necessary to build resilience. Civil society actions can motivate employers to sign pledges of good citizenship, backed by government support and legislation.

Third, opportunities for upward mobility need to be expanded. Low and falling rates of social mobility in many developing countries are responsible for keeping the children of poorer people trapped in poverty. Workers, and workers' children, need to be able not just to go back to their old jobs, but also move on to better positions. The higher people can climb, the less likely they will be to fall into chronic poverty, even when an event like a pandemic strikes.

Building back better after COVID-19 thus calls for a range of mobility-promoting policies, including higher-quality education for all, career guidance and jobs information, and measures to build cultural and social capital. This will take strong commitment from governments at a time when public finances will be strained by the economic effects of the pandemic—but having witnessed those effects, policymakers should realize that there is no time to lose in rebuilding on a more sustainable basis.

How much a country achieves in these key areas will be a result of where it sets its priorities. Some countries might prefer to keep lowering the tax burden. But it will be people in countries that invest in these three kinds of policies who are most resilient to future shocks, like another pandemic, that could otherwise plunge millions into poverty. ■

"Forced migrants and refugees are among the most vulnerable and neglected members of their host communities, and have often been more severely affected by the COVID-19 crisis than local populations."

The Plight of Migrants and Refugees in the Pandemic

LUISA FELINE FREIER, SOLEDAD CASTILLO JARA, AND MARTA LUZES

In early May 2020, Andrith, a 30-year-old former Venezuelan police officer, left Peru with his partner Patricia, 24, and their three-year-old son the same way they had arrived a year earlier—on foot and without any food or money. Now they were trying to make it back to Venezuela. They would have to cross the closed borders of Ecuador and Colombia via unofficial routes in order to eventually reach their hometown of Caracas.

They had gone through severe economic hardship during their migratory odyssey, but nothing that came close to the desolation they experienced during the national lockdown that Peru implemented from March 16 to June 30 in response to the coronavirus pandemic. After almost three months, with no money to pay rent or buy food, their despair drove them to return to Venezuela, knowing that conditions there had worsened since they were forced to leave by the country's political, socioeconomic, and humanitarian crisis of the past few years. In Venezuela, Patricia said, at least they would be with their families.

During their return journey, Andrith and Patricia had their few belongings stolen and were trapped at the Ecuadorian border in Tulcán for days, waiting for people-smugglers to take them into Colombia. A month after leaving Lima, they arrived in Cúcuta, Colombia, a city on the Venezuelan border. There they joined thousands of other Venezuelans, all of them desperately trying to return to a country that was slipping into further chaos by the day. The last time we heard from Andrith and Patricia, in early July, they had been waiting for days in an informal and overcrowded camp in Cúcuta, with no access to adequate food, clean water, lodging, or any of the basic necessities that help prevent the spread of COVID-19.

Patricia was forced to sell her hair to buy a day's worth of food—a fate she had hoped to avoid when she passed through Cúcuta the previous year. As they waited for their turn to cross the border to be called by representatives of the United Nations High Commissioner for Refugees (UNHCR), who were mediating with the Venezuelan government to organize safe return for migrants, Andrith was selling cigarettes on the street. Summing up the chaotic scene, Patricia told us, "There are so many people, so many people trying to get home . . . and there is no help; it's so hard."

Andrith and Patricia's desperate and precarious situation exemplifies the anxiety that border closures have caused for forced migrants and refugees worldwide as they struggle to survive in lockdowns during the pandemic. But COVID-19 has not only stranded millions of people at borders, it has also made them more vulnerable to people-smugglers and human trafficking rings. Migrants, especially forced migrants and refugees, are often among the most defenseless and neglected members of their host communities when it comes to socioeconomic and political rights. Their vulnerabilities have deepened during the pandemic.

As of mid-2020, according to the International Organization for Migration (IOM) and the UNHCR, the global total of international migrants had reached 272 million, of whom 79.5 million had been forcibly displaced—the highest number on record. Including migrant and refugee populations

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in states' emergency responses and providing regular means of migration during the pandemic and other crises is essential to prevent their already desperate situations from becoming much worse—and to control rather than potentially add to public health risks.

Forced Immobility

Perhaps the most obvious effect of the COVID-19 pandemic on migration has been forced immobility. Worldwide lockdowns and travel restrictions, which were put in place to prevent the spread of the virus, affected hundreds of thousands of migrants and refugees. By the end of July, COVID-19–related travel restrictions continued in place in almost all countries. Many forced migrants remain trapped in transit countries, unable to either reach their final destinations or return to their countries of origin.

In South Asia, after the Indian government imposed a nationwide lockdown on March 24, thousands of Nepalese migrants, mostly low-wage workers, attempted to walk home but were blocked at different points along India's 1,700-kilometer border with Nepal in April. Similarly, in early June, the IOM reported that around 30,000 migrants were stranded in West and Central Africa. Dozens of Malians, who had been stuck for nearly three months in Niger, were successfully repatriated, but thousands there are still unable to continue their journeys or return home.

Worldwide lockdowns trapped thousands of migrants and refugees in transit countries.

In the Americas, more than 14,000 asylum seekers, mostly from Central America, were immobilized in cities across northern Mexico. They are subject to the Migrant Protection Protocols, an agreement that enables the United States to send non-Mexican asylum seekers back to Mexico while their applications are pending. During the pandemic, the Trump administration not only has closed its borders, but also has initiated even more restrictive immigration policies. One of its new regulations raises the standard of proof for asylum seekers and allows immigration judges to deny applications for protection without giving applicants the opportunity to testify in court.

Across South America, Venezuelan migrants have been condemned to forced immobility, affecting both emigration and return flows. In one of the most dramatic situations, Venezuelan return migrants like Andrith and Patricia have been trapped on the Colombian side of the border at the Simón Bolívar Bridge in Cúcuta. Due to restrictions imposed by the Venezuelan government, only a couple of hundred people are allowed into the country each day, forcing returning migrants and refugees to sleep on the streets and wait for weeks until they can cross the border into their home country. Even there, they face a hostile reception. Venezuela has treated returning citizens who try to bypass official border crossings and the mandatory quarantine as "bioterrorists," jailing them in unhygienic conditions without adequate food or drinking water.

As borders across Latin America were closed, Bolivian and Peruvian migrants who lost their jobs in Chile were also stranded in border cities while trying to return to their home countries. Hundreds of Paraguayans who tried to leave Brazil and return home were stuck at the Ponte da Amizade Bridge, which connects the two countries, and had to spend days in extremely unsafe conditions. Even though most foreign affairs ministries in the region have worked together to set up official repatriation operations, those efforts have fallen far short of providing adequate assistance for all the desperate migrants trying to make it home.

Prey for Traffickers

Even in a time of worldwide travel bans and immigration restrictions, borders remain porous, especially land borders in the global South. Both large-scale internal mobility, as seen in caravans of Indian and Peruvian internal migrant workers walking back to their hometowns from capital cities, and international migration via informal channels have continued. Both forms of migration are often unsafe. During the pandemic, many desperate migrants have turned to smugglers, and in some cases have fallen into the hands of human traffickers.

For Venezuelan return migrants, the situation is particularly alarming due to the growing presence of criminal organizations along the Colombian border. Evidence from other countries, such as Niger, suggests that smugglers are shifting to more clandestine and thus more dangerous routes. Smugglers worldwide have adopted new information and communication technologies, like smartphones, messaging apps, and money transfer

services, which makes it harder for law enforcement agencies to track and identify them.

Two aspects of the trade in humans for the purpose of forced labor, sexual slavery, or commercial sexual exploitation are particularly worrisome in the context of the pandemic. Lockdowns further limit access to assistance for victims who are confined by their traffickers and now face a greater risk of both violence and infection. The effects of the pandemic are also deepening social inequalities, increasing the risk that vulnerable people will be subjected to different types of exploitation, whether forced labor, debt bondage, or sex slavery. More women, children, and migrants may be caught up in human trafficking networks, especially with over 1.5 billion students out of school due to the pandemic.

Despite the lockdowns, government actions are also responsible for the continued mobility of vulnerable migrants. Even as states repatriated millions of their own citizens, deportation programs kept operating in some countries. The United States deported nearly 10,000 immigrants in April alone, and there has been an increase in expedited deportations, often without due process. Migrants sent to overcrowded detention centers are more likely to be infected with the virus. A recent investigation by the *New York Times* and the Marshall Project revealed that the US Immigration and Customs Enforcement agency deported at least 3,000 foreigners who had tested positive for COVID-19 back to countries including India, Haiti, Guatemala, and El Salvador.

Camp Confinement

Forced migrants and refugees are among the most vulnerable and neglected members of their host communities, and have often been more severely affected by the COVID-19 crisis than local populations. In some countries, displaced people are confined to camps or camp-like settings. Densely populated camps with limited access to public health services, basic sanitation, and clean water put refugees at a higher risk of infection—not just in North Africa, the Middle East, or Asia, but also in several camps in Greece. The conditions in such camps make it very difficult to adhere to social distancing, hand washing, or self-isolation guidelines. Despite efforts by international organizations such as the IOM and the UNHCR to prevent and control the virus in these camps, the virus has continued to spread.

In Bangladesh, many Rohingya refugees from Myanmar, where the military has targeted the Muslim minority group with ethnic cleansing campaigns, live in the Kutupalong refugee settlement in the southeastern Cox's Bazar district. The camp has grown to become the largest of its kind in the world, hosting almost 600,000 people as of June 2020, in an area of just 13 square kilometers. The virus reached the camp in April, and since then humanitarian organizations have been trying to control its spread with quarantine facilities.

Humanitarian workers around the world fear outbreaks in other camps. But the restrictive policies of some countries have not been justified by public health considerations. In Greece, for example, despite few reports of COVID-19 cases in the country's refugee settlements, such as the Ritsona and Malakasa camps near Athens, the government extended lockdown restrictions on the camps even as the rest of the country gradually reopened. (The last camp lockdown was not lifted until July 19.) These unjustified restrictions have been challenged as discriminatory by inhabitants.

Such policies should be understood in the context of Greek authorities' efforts to deny people the right to apply for asylum. According to the *New York Times*, Greece had secretly expelled over 1,000 refugees since March, leaving many adrift at sea, to be rescued by the Turkish coast guard, or sending them back across the Evros River into Turkey. Meanwhile, Germany has called for nongovernmental organizations to cease search-and-rescue activities, and Italy and Malta closed their ports to rescued people, decisions that Doctors Without Borders has called "discriminatory and disproportionate."

On the Street

In many Latin American countries, forced migrants, asylum seekers, and refugees do not live in camps, but rather are dispersed among the general population, often taking jobs in the informal economy. This is the case for over 5 million displaced Venezuelans who have fled hunger, violence, and massive human rights violations in their home country—facts that should qualify them for recognition under the regional Cartagena Declaration on Refugees.

Most Latin American countries have incorporated the Cartagena Declaration's refugee definition into their own laws, and thus are obligated to protect Venezuelans as refugees and guarantee

their access to social services such as health care and education. But these obligations have not always been met in practice. Due to this lack of protection, many Venezuelans were barely better off during the pandemic lockdowns, cut off from the support of their families and friends, than they had been back home.

This drove some to resort to dangerous work during the quarantine. In Peru, Venezuelans were disproportionately employed by funeral homes to collect the bodies of suspected COVID-19 victims. Over 90 percent of the Venezuelan migrant and refugee population had been working in the informal sector before the pandemic. Many lost those jobs during the lockdown; since they did not receive any unemployment benefits, they no longer had any income. A survey conducted by the Equilibrium CenDE think tank in Peru showed that by mid-June, more than 50 percent of Venezuelans in Peru were unemployed and looking for work. Nearly half faced the threat of eviction.

Venezuelan migrants in Ecuador and Colombia endured similar conditions. During the lockdowns, many Venezuelans were left homeless, living and begging on the streets of South American cities while seeking help from international organizations and local authorities. This has increased the incidence of mental health problems such as depression and anxiety among migrant and refugee populations.

The rapid rise in the number of Venezuelan migrants substantially added to the demand for public services in countries like Peru. Those services were further strained by the pandemic. In most cases, even Venezuelans with regular migration status are ineligible for subsidized health care in Peru, with the exception of pregnant women and children up to the age of five. Neither a special work visa for Venezuelans nor asylum seeker status qualifies them for such services. Migrants have had to pay the full price of care at public hospitals, turn to private medical clinics, or find formal employment that offers health insurance. Although public health insurance coverage was extended to all residents of Peru who display COVID-19 symptoms, regardless of their legal status, some infected migrants reportedly were not tested or admitted to public hospitals.

As governments worldwide closed borders and enacted social support measures to protect the most vulnerable populations during the pandemic, as well as to help enforce quarantines, migrants and refugees were consistently left out of social programs such as cash transfers and essential health care services. Even in Canada, those classified as temporary foreign workers, with short-term work visas, were not made eligible for either public health care or the financial aid distributed to employed and self-employed Canadians directly affected by COVID-19. From a public health perspective, excluding foreign residents from emergency programs intended to help people comply with lockdowns is counterproductive and irresponsible.

As the pandemic has plunged countries all over the world into mandatory lockdowns and recessions, migrants' loss of income has had severe repercussions for their families back in their countries of origin. Many households in developing nations are dependent on the earnings that migrants send home, known as remittances. The World Bank has estimated that the COVID-19 pandemic will reduce global remittances to low- and middle-income countries by about 20 percent, from $554 billion in 2019 to $445 billion in 2020.

During the pandemic, desperate migrants have fallen into the hands of traffickers.

As of June 2020, 55 percent of Venezuelans in Peru had stopped sending remittances home, while 30 percent had reduced the amounts they sent. On top of their own economic hardships, not being able to help their loved ones back home is likely to add to the pressure on the mental health of forced migrants. Their journeys are often driven by a desire to ensure the well-being of the family members they leave behind.

Xenophobic Reactions

While it is still too early to know whether the pandemic will change public attitudes toward migrants in the medium to long term, some analysts expect it to intensify anti-immigrant sentiments. At the beginning of the pandemic, outbreaks of xenophobia were mainly directed against Asians, reacting to the supposed Chinese origin of the virus. People of Asian origin reportedly faced verbal and physical abuse in countries such as the United States, Australia, and Italy.

Populist politicians including US President Donald Trump, Hungarian Prime Minister Viktor Orbán, and former Italian Interior Minister Matteo Salvini, already known for their anti-immigrant rhetoric before the COVID-19 crisis, linked irregular (or "illegal") immigration with the spread of the virus. The government of South Africa, where xenophobic violence against immigrants from neighboring Zimbabwe and other African countries has proliferated in recent years, decided to build a 40-kilometer fence on the border with Zimbabwe to "keep the virus out."

At the same time, there have also been reports of shifts in public attitudes to more favorable views of migration. In some European countries, the pandemic has helped raise awareness of migrants' contributions as "essential workers," especially in the health sector, supply chains, and agriculture. Perhaps the most notable instance of such public recognition and gratitude was for the immigrant nurses Jenny McGee of New Zealand and Luis Pitarma of Portugal, who cared for British Prime Minister Boris Johnson when he was hospitalized in April after contracting the coronavirus. Johnson had been one of the leaders of the Brexit campaign, which was fueled by anti-immigration sentiment. His hospitalization and subsequent public expressions of gratitude to the nurses highlighted the National Health Service's dependence on immigrant staff.

In Colombia and Peru, the two main destinations in the region for displaced Venezuelans, tensions are rising. Over the years, Colombia has displayed a welcoming attitude toward immigrants, but xenophobia has increased during the pandemic. In Peru, public attitudes toward Venezuelan migrants had already deteriorated in the months before the pandemic arrived, due to perceptions of economic competition between nationals and foreigners, as well as alleged links between Venezuelan immigration and crime. During the lockdown, negative sentiment regarding Venezuelan immigrants rose further: they were perceived as benefiting from public assistance that many Peruvians felt should be reserved for citizens. A recent study that we conducted in Lima found that some Venezuelan migrants and refugees fear xenophobia will keep growing in the coming months as an economic crisis looms.

Irregular Perils

One crucial migration issue has stood out during the pandemic: lack of access to regular legal status makes forced migrants and asylum seekers more vulnerable, and less able to avoid being exposed to the virus. Lockdowns have closed administrative offices for months, leaving migrants and asylum seekers with no way to renew expiring identification documents. In European countries such as Belgium, services and reception centers for newly arrived asylum seekers were initially shut down without any plan to ensure access to food, shelter, or other basic needs. Around the world, according to the UNHCR, out of some 120 countries under lockdown in May 2020, only about 30 were giving any consideration to the claims of asylum seekers. The already slow resettlement of officially recognized refugees has also been halted.

Denying migrants access to legal means of cross-border mobility and residence status poses a global public health risk. Migrants who cross borders through unofficial points of entry are not registered and do not go through sanitary controls or obligatory vaccine programs. In a context of large-scale displacement, the risk of infection with communicable diseases such as COVID-19 is very high for irregular migrants, many of whom travel in large groups or are stuck in camp-like settings. After arrival in a new host country, the difficulties of life as a migrant with precarious legal status are just as serious. Irregular status can bar migrants and asylum seekers from access to social services, including public health care.

Since 2017, Peru has granted different types of legal status to Venezuelan citizens, but has not found a sustainable solution. Only about 100,000 of roughly 500,000 asylum seekers have received an identification document, and fewer than 1,000 have been recognized as refugees. The precariousness of their legal status, either undocumented or carrying papers that more often than not are rejected by government agencies and the private sector, adds to their stress when dealing with authorities. This is especially worrisome during the COVID-19 emergency. According to the study conducted by Equilibrium CenDE, over 78 percent of Venezuelan migrants said that they would feel fear or anxiety if they fell ill and had to seek help from a public official.

There are a few examples of countries that have taken a creative approach to migrant regularization during the pandemic. Some are being flexible about visa expiration dates. In Portugal, all migrants with pending applications were temporarily given legal residence status to ensure their access to health care and other public services, as well as

to temporary welfare benefits granted by the government during lockdown. In Italy, migrants working in the agricultural sector or in domestic service were regularized to provide them with access to health care and protect them against labor exploitation. (Two new types of visas were issued: a temporary work visa for the employed, lasting up to two years, and a 6-month work search visa for undocumented workers.) In Spain, requirements for obtaining regular status were relaxed, particularly for residence permits and family reunification.

The problem with most of these measures is that they are temporary and selective. From a public health perspective, regularization should cover all migrant workers, irrespective of the sector in which they are employed, and should not be time-limited.

The COVID-19 pandemic has demonstrated that public health emergencies put forced migrants and refugees at even more extreme disadvantage than usual. They are subject to forced immobility, economic hardship, precarious legal status, and limited access to public services—including health care. The exclusion of migrants from governments' emergency responses has left them all the more vulnerable.

There is a pressing need to include migrant and refugee populations in emergency programs and to create legal pathways to migration, even during the pandemic. Governments in destination countries should set up mechanisms to provide regular status for irregular migrants. Foreigners should be granted access to social services, especially health care. It is also necessary to combat (rather than encourage) xenophobia both in public opinion and in the provision of public services. Only by taking such steps will governments ensure that preventive pandemic policies and other public health measures are effective for their entire populations. ■

"[S]cience is not a static reservoir of knowledge that politicians can periodically tap when they need a solution to this or that problem."

Science, Politics, and the Pandemic

J. NICHOLAS ZIEGLER

A scientific worldview and the practice of democratic politics have, for at least two centuries, been considered mutually reinforcing endeavors. The pandemic caused by the novel coronavirus SARS-CoV-2 has thrown this perceived affinity into question. We know the pandemic will come to an end, but we do not know how quickly or at what cost in lives, prosperity, or social stability. Meanwhile, we expect scientists to tell us how to avoid the virus, how and when we can return to work, how to treat those who fall sick, and when a vaccine will be available and keep everyone safe.

The ability to mobilize scientific research and translate its findings into effective policy has emerged as one of the key variables in the way different countries have responded to the virus. While the steps taken by various states will be analyzed for years, it was already clear by July 2020 that even the most advanced scientific powers were following widely divergent trajectories. If we had to select three countries with the greatest historical strengths in the biomedical sciences, Germany, the United Kingdom, and the United States would surely be near the top of the list.

By comparing these countries and how their governments tried to contain the virus, we can see striking variations in their use of scientific expertise to understand the new pathogen and limit its damage. Their degrees of success hinged on much more than the quality of their research or the insights of their scientists. It depended also on the understanding of science that had diffused throughout their workforces, the coherence of the agencies responsible for channeling science into a policy response, and the skill of their political leaders in communicating the need for a unified response.

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MAPPING THE VIRUS

The established research institutions in Germany, the UK, and the United States all had teams that could quickly understand the structure of a new virus. Virologists in these countries, as in others, started learning simultaneously when the World Health Organization (WHO) announced the appearance of a new coronavirus in Wuhan, China, in late December 2019. Within a few days, the head of China's Center for Disease Control, George F. Gao, was in telephone contact with his US counterpart, Robert Redfield, at the Centers for Disease Control and Prevention (CDC) in Atlanta, and research institutes around the world began monitoring news of the new pathogen.

While some observers say the Wuhan authorities could have reported the city's unexplained pneumonia cases earlier in December, there is no doubt that the international scientific community quickly made the world aware of a serious new illness. Based on their knowledge of the earlier SARS coronavirus that killed almost 800 people in 2004, virologists in Germany, Britain, and the United States started work immediately in January 2020. Once Chinese scientists published the genome of the new pathogen on January 11, virologists could quickly focus their efforts more precisely on its specific structures.

The kind of knowledge required for reliable diagnostic tests is sophisticated but far from rare. It entails genetic sequencing techniques that, since the mid-1990s, have been within the capabilities of many public disease institutes, dozens of university research labs, and a large number of biotech firms that specialize in viral diagnostics. The first workable test outside China was announced on January 16 by the virologist Christian Drosten at the Charité Hospital in Berlin. This test detected two distinctive parts of the new virus and was quickly adopted by the

WHO. Within a few days, the US CDC had created a molecular test that identified three distinctive pieces of the new virus's genetic sequence. And also in January, scientists at Public Health England (PHE) refined a general coronavirus test with a confirmatory procedure that would be performed at its Colindale facility.

By late January, all three countries had reliable test procedures that used the gold standard for viral diagnosis, known as polymerase chain reaction (PCR) tests. What happened thereafter depended less on the scientific knowledge that went into test design than on each country's ability to deploy tests for tracking the contagion, to define non-pharmaceutical interventions to slow the contagion, and to explain these interventions to an anxious and sometimes skeptical public.

TRACKING THE CONTAGION

If mapping the pathogen's genetic structure depended on scientific knowledge, mapping the contagion called for skills of a more applied and practical sort. In ramping up a testing program, the key factors were effective cooperation between public agencies and private sector organizations, a well-trained workforce that could administer tests and evaluate patient samples, and robust local health bureaus that could reliably report data back to central agencies. In these dimensions, German organizations stood out for strong performance. The UK had difficulty building effective public-private partnerships for testing. The United States effectively left testing to the states, which resulted in a multiplicity of tests that required different processes and levels of skill.

From the start of the coronavirus crisis, the uncertainties were pervasive.

In Germany, the agency responsible for disease surveillance and monitoring, the Robert Koch Institute (RKI), was at the center of a national testing program. It approved test designs, monitored their use in local health bureaus, and operated a well-established system for reporting and aggregating data. Along with the RKI, the Ministry of Health encouraged private sector actors to commercialize the test that was pioneered by Drosten. A small biotech company in Berlin, TIB Molbiol, worked closely with researchers at Charité to produce a test kit in volume. The kits were then distributed through the Swiss-headquartered pharmaceutical company Roche, which used its diagnostic machines to process test samples at its labs throughout Germany.

While local health offices in Germany are operated by subnational governments, standards for training and certification are painstakingly negotiated among industry, state governments, and federal bodies. As a result, the technicians who administered the tests had been trained according to well-understood national standards, and they were fully prepared to follow new guidelines for using the Roche processing machines.

Despite its early work on the structure of the virus, the UK proved unable to achieve the same scale of testing that Germany's public-private infrastructure allowed. The UK's central public-health monitoring agency, PHE, equated quality control with in-house testing; private sector partners were left out of the planning process. Meanwhile, low initial case counts encouraged officials to hope the new virus would subside, much like the flu or the earlier SARS virus had done. Testing was conducted only at five hospitals in England, with confirmation through a second assessment that could only be provided by PHE's own laboratory in Colindale. The need for an all-out emergency response with rapid recruitment of private sector firms was not grasped until March.

The United States also lacked the organizational ties that worked so smoothly in Germany. The division of labor among the CDC, the Food and Drug Administration (FDA), and the National Institutes of Health (NIH) could be a source of strength if the agencies were aggressively coordinated by the executive branch. But under a White House that downplayed the severity of the virus, there was little effort to overcome the built-in fragmentation among federal agencies. As a science-based institution that prided itself on excellence, the CDC supplied proof-of-concept guidelines and performed the all-important tasks of aggregating and analyzing epidemiological data from hospitals around the country. Approval of private-sector products, including test kits, was meanwhile governed by the FDA's time-consuming review process. The NIH was responsible for basic research and vaccine-related work.

This fragmentation left the CDC, whose budget had been cut by the Trump administration, ill-positioned to plan, much less operate, an

integrated national testing program. It sent limited numbers of its own test kit to hospitals. Like the Charité group in Berlin, the CDC used the PCR molecular testing method. But when it turned out that local laboratories could not use the reagents for one part of the CDC's three-segment PCR test, patient samples had to be returned to the CDC in Atlanta for evaluation. The initial rollout faltered badly due to these production bottlenecks and delayed results. Only in late February did the FDA begin issuing emergency-use authorizations for university and commercial test kits.

In the absence of a federal framework, state governors scrambled to find commercial test suppliers. By March, several governors went directly to university research laboratories and then waived licensing rules so that in-state labs could proceed independent of the CDC. Meanwhile, though February and early March, the disease spread while the CDC could conduct only patchy surveillance.

The differences in testing capacity among these three countries became clear through the month of March. By March 15, according to Our World in Data (ourworldindata.org), an Oxford-based data aggregator, Germany had tested over 250,000 residents, the United States under 40,000, and the UK was not yet reporting figures. Later in March, all three countries ramped up testing, but the UK and United States still lagged far behind Germany on a per capita basis. Cumulative totals tested by March 31 were: Germany, over a million people; the United States, 1.1 million; and the UK, 155,174.

While many factors shaped the trajectory of cases and deaths, Germany's ability to test during the critical early weeks of the pandemic had a clear effect. As of March 31, Germany had 61,913 cases and 583 deaths, the United States had 164,620 cases and 3,170 deaths, and the UK had 29,681 cases and 2,044 deaths. Germany had been hit hard by the pandemic's initial wave in Europe, but it was well prepared to flatten the curve and had already proved better than the United States or the UK at limiting fatalities.

Formulating a Policy

Beyond the immediate need for diagnostic testing, all three countries started formulating broader plans for responding to the new virus. As students of public administration know, almost all policy decisions are made with incomplete information. From the start of the coronavirus crisis, the uncertainties were pervasive. Political leaders had to process multiple streams of continuously changing information as experts advanced their understanding of the virus, its medical effects, and its potential for spreading.

Virologists could quickly sequence a new virus structure at the molecular level, but they were only beginning to understand the cellular-level mechanisms by which it attacked, and in some cases overwhelmed, the human immune system. Epidemiologists readily modeled the potential spread of the new disease, designated COVID-19, but their predictions relied on assumptions for all of the key variables. The incubation period and the lethality of the virus could be partially illuminated by infectious disease specialists, but along with the rate at which the virus spread—represented by the now-famous variable $R_{(0)}$—they could only be accurately measured with the help of testing data. Until testing was extensive enough for the modelers to update these parameters, decision makers would have to rely on very broad non-pharmaceutical interventions, such as social distancing and shelter-at-home orders.

To define a path through the continually shifting streams of information, policymakers were therefore dependent on their top elected leaders for an overall policy direction. In the cases of Germany, the United Kingdom, and the United States, this reality powerfully amplified the differences apparent in their immediate responses.

It would be hard to imagine a political executive whose background made her better suited to this challenge than Germany's Angela Merkel. Having completed a PhD in physical chemistry in East Germany, she possessed a physicist's theoretical grasp of molecular structure and a chemist's insistence that theoretical models be empirically verified. As Germany's longest-serving postwar chancellor, having already said she would not seek reelection to another term, Merkel was evidently far more focused on steering the country through the pandemic than building a political base. She was particularly disturbed by the ethnic tensions that the new virus aggravated. In early February, while speaking to students in South Africa, she warned against basing judgments on "national groups" in the face of new threats, and said her advice was "first and foremost, to be curious."

Merkel followed the available numbers as cases in Europe increased. On March 1, Germany had an order of magnitude fewer cases (111) than Italy (1,128), where the virus was spreading

rapidly in the ski towns north of Milan. But instead of choosing models that painted a rosy short-term picture, Merkel calmly told the German public in early March that as much as 60–70 percent of the population might become infected. By March 15, Germany had almost a fifth as many cases (3,795) as Italy (21,157), and the numbers were doubling every three to four days. The next day, Merkel announced nationwide closures of bars, gyms, museums, theaters, and most other businesses except grocery stores and other urgently needed outlets.

British Prime Minister Boris Johnson had neither Merkel's familiarity with scientific expertise nor her experience in governing. A general skepticism toward expertise as personified by the European Union in Brussels had been part of the pro-Brexit movement calling for Britain to leave the EU, which Johnson had helped lead to its 2016 referendum victory. As one of Johnson's top cabinet ministers, Michael Gove, had famously put it in 2019, "I think the people of this country have had enough of experts from organizations with acronyms saying they know what is best."

Well into March, Johnson's chief adviser, Dominic Cummings, discounted social distancing and instead promoted the idea—known as "herd immunity"—that once a large enough proportion of the population became infected, the virus would stop spreading. When the head of the government's Scientific Advisory Group for Emergencies (SAGE) agreed and said that achieving "herd immunity" would require 60 percent of the British public to become infected, over 200 British scientists wrote an open letter saying the concept had little coherence. A second blow came when one member of SAGE, Neil Ferguson of Imperial College, issued a report pointing out that infection on this scale would overwhelm Britain's National Health Service (NHS). Since the prime minister has direct responsibility for the NHS and its hospitals, the pressure to change policy was immediate and overwhelming. Johnson's cabinet hurriedly recommended social distancing and on March 23 issued a general shelter-at-home order.

In the United States, President Donald Trump represented the antithesis of the scientific approach that Angela Merkel personified and that Boris Johnson slowly accepted as a necessary part of pandemic planning. With no scientific background of his own, Trump relied more on personal connections than on expert advisers. Instead of assimilating new information to devise a set of non-pharmaceutical interventions, the White House assessed incoming information for its effects on the president's public image. The Coronavirus Task Force, established in late January, served as a backdrop for the president's press briefings as much as for policy coordination.

If anything, the uncertainties inherent in understanding a new pathogen gave Trump a sense of freedom to engage in wishful thinking. Instead of considering social distancing, stay-at-home rules, or other measures, he sought to reassure the public and emphasize the prospect of therapeutic drugs and vaccines soon becoming available. On February 26, he said the virus affected different people differently, which made it "a little bit like the flu," and predicted that something like "flu shots" would "in a fairly quick manner" be available to prevent it.

Without any operational role for the federal government in hospital administration, the White House left day-to-day responsibility for hospitals and frontline health workers to the states. As the virus spread on the West Coast and in the Northeast, governors realized they would have to analyze the available science and formulate their own responses. California Governor Gavin Newsom issued a shelter-at-home order on March 19. New York and several other states followed within three days. It was increasingly understood that a day's delay in issuing these guidelines could make the difference between the contagion subsiding or spiking. By early April, all but eight states had issued stay-at-home guidelines at varied levels of stringency.

Explaining the Policy

Science advisers regularly confront the problem of drawing a clear line between scientific findings and policy recommendations. Especially in health policy, there is widespread consensus that public confidence in science requires a clear division of labor between public health officials and political decision-makers. In areas where policy measures depend on public compliance, scientific authorities seek to clarify what is known while allowing politicians to plan and justify government interventions. Germany, the UK, and the United States all have well-defined professions for public health, and their specialists sought to follow similar guidelines. Their ability to maintain a clear division between scientific

advice and policy advocacy during the pandemic, however, depended heavily on the cooperation of their political counterparts.

By early April, it was clear that a vaccine for COVID-19 was, at best, many months in the future. Policymakers were, by default, left with a menu of non-pharmaceutical interventions, including hygiene campaigns, social distancing rules, shelter-at-home orders, and limits on large group gatherings. Different governments deployed these policies in combination with other measures and with different degrees of stringency. But whatever combination a government chose, a variable of equal importance was its leadership's ability to communicate its policies in a way that elicited compliance and public trust as scientists continually improved and revised their understanding of the virus.

While Germany benefited from Merkel's informed grasp of the science behind different policy options, the government's strategy for public communication was reinforced by other leadership figures as well. There was a clear division of labor between the public health authorities at the RKI and the Health Ministry. The president of the RKI, Lothar Wieler, commanded public attention because his organization collected the data on daily increases in cases. He paralleled the federal government's message by emphasizing the changing rate of infection, which Merkel explained in a video that went viral in April.

Trump represented the antithesis of the scientific approach that Merkel personified.

Health Minister Jens Spahn also emphasized the need for reliable information and honest communication with the public. In May, he said, "It is critical that governments inform the public not just about what they know, but also about what they don't know. . . . In pursuing a coordinated, collective response, transparency and accurate information is far more effective than coercion."

The German public's hunger for scientific information was demonstrated by Dr. Drosten at the Charité Hospital. When a radio programmer asked in February if he would do a regular Q&A session, Drosten agreed immediately. Within two of his appearances, the show became the most popular podcast in Germany.

After the British government's sharp shift in policy in mid-March, Boris Johnson started trying to look like he was following scientific consensus. This goal took on more urgency when Johnson himself tested positive for the virus on March 26 and was hospitalized in intensive care from April 5 through April 12. He was unable to return to work in London until April 26. Despite sympathy for the severity of his condition, Johnson also drew criticism for shaking hands with everyone while visiting hospitals only weeks earlier.

While undergoing treatment, Johnson delegated decision making to Foreign Secretary Dominic Raab. Press briefings were held either by Raab or by Health Secretary Matt Hancock, but always included the government's chief medical officer Chris Whitty or some other health expert. Government spokespersons routinely asked members of the press if they had follow-up questions, implicitly acknowledging that the media was part of the machinery necessary to disseminate information on the virus. Although British observers periodically complained about the ruling Conservative Party's treatment of the press during the pandemic, there was nothing like the open friction that characterized White House briefings in the United States.

In the United States, the Trump administration's determination to shift all responsibility for pandemic management to the state governments created a delicate predicament for the infectious disease specialists on the Coronavirus Task Force, particularly Deborah Birx and Anthony Fauci. They clearly wanted to maintain the division of labor between providing science-based information and policy advocacy. Yet the president's own forays into the realm of medical advice sometimes required them to find diplomatic ways of providing the correct information.

Trump's refusal to wear a mask was only one example. His misguided promotion of the antimalarial drug hydroxychloroquine as a possible therapy for COVID-19 and his speculation that ingesting disinfectants might clean out people's lungs both prompted immediate outrage and disapproval from medical professionals. This overt disregard for scientifically verified approaches went deeper than the president's political interest in downplaying the pandemic; it indicated his need to remain central to an ongoing narrative designed to inspire his supporters rather than address the public health emergency.

In keeping with this goal, Trump was happy enough to appear periodically with Birx or Fauci, though he frequently used the opportunity to reinterpret their comments or to suggest alternative hypotheses of his own making. When Fauci started getting better approval ratings than the president, however, the White House launched a not very subtle effort to undercut his credibility. It appeared to view quashing a challenge to Trump's standing in public opinion as more important than the imperative of mounting an effective federal response to the crisis.

A renewed discussion of testing made it even clearer that the president saw no need to tie the inspirational arc of his narrative to any semblance of empirically verifiable reality. As northeastern states gained control of the contagion, the virus began to spread more rapidly in the South and Southwest. By mid-July, the daily number of new cases in Florida, Alabama, Texas, and Arizona had risen by an order of magnitude over the levels of mid-May. The president responded by wearing a protective mask in public for the first time on July 11, but he continued to question the need for widespread testing. He had affirmed the priority of a good narrative over evidence in mid-June, when he tweeted that testing "makes us look bad" by surfacing more cases—an argument he advanced repeatedly in July.

The UK proved unable to achieve the same scale of testing as Germany.

Apparently acting on this concern that the numbers were hurting its image, the White House in mid-July reassigned the task of collecting data on COVID-19 cases from the CDC to a Pittsburgh-based company, Tele-Tracking. Public health experts and even the company's founder questioned the move—not because they doubted Tele-Tracking's abilities, but because they wondered what would happen to the numbers after they were transmitted to the Department of Health and Human Services.

Meanwhile, state governors were again growing desperate for more, not less, testing. Under a plan first announced by the Rockefeller Foundation in mid-July, seven states—Louisiana, Maryland, Massachusetts, Michigan, North Carolina, Ohio, and Virginia—formed a compact to purchase millions of test kits and jointly track the virus. Only later, as calls for nationwide testing came from a broader range of sources, did the White House bring the issue within its own narrative by disclosing plans to purchase a new rapid test from Abbott Laboratories for use around the country.

The contrasting strategies for public communication in Germany, the UK, and the United States played an undeniable role in the results achieved by the three countries. The outcomes can be compared by numbers of deaths and deaths per million residents through the first six months of battling the pandemic. By July 31, 2020 (according to Our World in Data), Germany had fewer deaths from COVID-19 than any of the larger European countries, at 9,141 (109 deaths per million residents). The UK exceeded all European countries in total deaths at 45,999 (678 per million residents). The United States, meanwhile, had become the world's hotspot, with more deaths than any other country, 152,070 (459 per million residents).

Science in Action

The headline numbers from the end of July embodied a great deal of geographic and demographic variation in all three countries. There was no doubt that the strengths and weaknesses of each would continue to surface at different points as policymakers tried to improve their efforts to control the infection while reopening more and more parts of their societies and economies.

Barring major political changes, however, the patterns that took shape from January through July are likely to persist. Germany's leadership shows every sign of energetically supporting a scientific approach while improving its measures for combating the pandemic. The British government has clearly come around to making scientific perspectives a key part of its deliberations, but it is hampered by earlier failures to invest the resources necessary to create the top-to-bottom educational and local health infrastructure that Germany enjoyed. And without a change in the Trump administration's approach, ongoing policy efforts to develop an effective pandemic response in the United States will depend on close cooperation and coordination among state governments.

Precisely because SARS-CoV-2 was a previously unknown virus, it has allowed the public to see the scientific enterprise as it proceeds in real time. It thereby illustrates why science is not a static reservoir of knowledge that politicians

can periodically tap when they need a solution to this or that problem. Instead, science is a vast social enterprise. Its effective use in public policy depends on far more than the quality or sophistication of the knowledge provided by scientists themselves. It requires continuing investment at all levels of the educational and occupational training hierarchy. Perhaps most important, it requires political leaders who are willing to let scientists help define the menu of plausible policy options, without expecting them to supply a magical silver bullet. ■

"Many US policymakers began the century believing that they had solved the age-old problem of governing well. . . . Reality provided a wake-up call."

The Pandemic Exposes an Ailing US Governance Model

ALASDAIR ROBERTS

In the United States, the effects of the COVID-19 pandemic have been devastating. By the summer of 2020, more than 170,000 people had died, and more than 20 million were unemployed. This disaster marks the end of an era. It closes a troubled chapter in American political history that has spanned the past two decades.

In many ways, the story of the past 20 years is about a descent from hubris. America's political elites began this century filled with confidence about their capacity to govern well. Leaders of both parties thought they had discovered a formula for running the country that produced all of the essential goods: domestic peace, economic prosperity, and international influence. Some even thought they had permanently solved problems of governance that had confounded leaders throughout history.

Political leaders spent the next two decades being disabused of these grandiose ideas. In moments of crisis—the 9/11 terrorist attacks, the 2008 financial crisis, and the pandemic of 2020—policymakers abandoned the simple governing formula of the late 1990s. Time exposed other problems that their formula could not fix, and which it sometimes even aggravated: economic insecurity, racial injustice, and political polarization. By 2020, the credibility of this governing formula was completely shredded.

The United States will be governed differently in coming years. Precisely how is difficult to say. Today, Americans are deeply divided about the principles that should guide government action. And perhaps there is no simple set of principles that provides clear guidance on how to govern in a turbulent and dangerous world. That might be one of the big lessons of the last two decades. Whatever they may say, policymakers do not feel bound by a specific formula for running the country. Instead, they have proved deeply pragmatic as they have guided the country through repeated shocks and strains.

THE REAGAN–CLINTON FORMULA

The twenty-first century began on a high note. The spirit of self-confidence was captured in January 2000 by President Bill Clinton. "The state of our union is the strongest it has ever been," Clinton told Congress. "Never before has our nation enjoyed, at once, so much prosperity and social progress with so little internal crises and so few external threats."

Clinton had reason to boast. The conditions of American life seemed very good in the late 1990s. Adjusting for inflation, the US economy grew by 40 percent between 1990 and 2000. The violent crime rate—an important measure of internal peace—declined by 40 percent in the same decade. With the collapse of the Soviet Union and the end of the Cold War, the United States enjoyed unprecedented influence in world affairs. Some said that it was no longer just a superpower, but a hyperpower.

With hindsight, Clinton's 2000 speech itself marked the end of a chapter in US history that had begun a quarter-century earlier. The United States had been mired in economic and social discontent in the 1970s. Many people talked about a national malaise. President Jimmy Carter worried about a "crisis of confidence" in American democracy. Economic growth had stalled, inflation was out of control, crime and domestic terrorism were rising, trust in government was slumping, and voters were angry.

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The US political elite was deeply divided about how to address this crisis in governance. Ronald Reagan, elected president in November 1980, offered a clear but controversial path forward. Reagan campaigned on a commitment to "get government off the backs of the people." His administration pursued tax cuts, cutbacks in federal agencies, deregulation of the private sector, free trade agreements, tougher crime policies, and a stronger defense.

Many people disliked Reagan's program intensely. He had an approval rating of just 35 percent in early 1983, as an inflation-fighting monetary policy slowed the economy. (By comparison, Donald Trump's approval rating never sank that low during the pandemic and economic slowdown of 2020.) Reagan's approach gained traction only after his decisive victory in the 1984 election. By then it was known as Reaganism.

By the 1990s, after twelve years of a Republican-controlled White House, many prominent Democrats had accepted much of Reaganism. Clinton also vowed to balance the budget, cut the number of federal workers, reduce regulations, and give more power to the states. A task force led by his vice president, Al Gore, promised to eliminate "useless bureaucracy and senseless rules" in the federal government. Many restrictions on the financial sector were eliminated as part of this crusade against "senseless rules." Clinton also promoted free trade and signed laws to reduce welfare benefits and crack down on crime. Federal Reserve Chairman Alan Greenspan quipped that Clinton "was the best Republican president we've had in a while."

Deep divisions among Americans will make it hard for policymakers to pursue any program of reform.

By 2000, the mix of policies being pursued by policymakers in Washington was really neither Republican nor Democratic. It constituted a formula for governing that transcended party labels. Some academics called it neoliberalism. In many countries, the formula was known as the Washington Consensus because it was endorsed by the World Bank and the International Monetary Fund, two international organizations headquartered in Washington and dominated by the United States.

The Reagan–Clinton formula envisaged a federal government that had fewer responsibilities and was more disciplined in its decision-making. Wherever possible, politicians were supposed to give power away—to the central bank, state governments, markets, and citizens. Political discretion in the realm of economic policy would also be checked by balanced budget laws and trade agreements. Because the formula put such emphasis on limiting political power, *New York Times* columnist Thomas Friedman called it "the Golden Straitjacket." Friedman meant that countries would get rich if politicians had less freedom of movement. He deemed this straitjacket "the defining politico-economic garment of the globalization era."

For some, no way of governing other than the Reagan–Clinton formula seemed imaginable at the start of the twenty-first century. As the political scientist Francis Fukuyama famously pointed out, all other models of governance that had been tried in the twentieth century—imperialism, fascism, communism, socialism—had proved to be failures. In 2002, President George W. Bush described the formula as the "single sustainable model for national success."

It takes a long time for a political consensus to break down. A generation of politicians and voters—tens of millions of Americans—grew up believing that the Reagan–Clinton formula was the right way to govern. However, the passage of years—and a succession of crises—have provided strong evidence of weaknesses in the model. The 2020 pandemic was the last and fatal blow to the credibility of the formula.

THE FIRST CRISIS: 9/11

The first blow to this formula was struck by the terrorist attacks of September 11, 2001. Senior Bush administration officials were surprised by the al-Qaeda attacks: there had been warning signs, but they were ignored. (This would become a familiar pattern in crises of the next 20 years.) The public feared more attacks would follow, perhaps involving nuclear, biological, or chemical weapons.

The Bush administration faced a dilemma. The Reagan–Clinton formula emphasized small government and limited political discretion. But a large majority of the American public now wanted strong federal action to protect the homeland. Federal policymakers could not escape responsibility for responding to a threat of uncertain dimensions. How could these new realities be squared with the prevailing dogma about the right way to govern?

The Bush administration's immediate reaction was to abandon the straitjacket of the 1990s. "The gloves are off," an unnamed senior official told journalist Bob Woodward in October 2001. Declaring that the nation was at war, George W. Bush promised to do "whatever it takes to make sure that we're safe." Defense Secretary Donald Rumsfeld said that "all elements of national power" would be deployed in defense of the American people. This was not the vocabulary of small or constrained government. The nation's leaders made clear that they were in charge.

In many ways, the Reagan–Clinton formula was bent to accommodate the realities of the post–9/11 world. Talk about the virtues of small government faded as security bureaucracies were expanded: the federal civilian workforce increased by 100,000 people within three years. Federal agencies acquired sweeping new surveillance and investigative powers. Similarly, talk about the virtues of free markets gave way to bailouts for the distressed airline industry and tighter regulation of privately owned "critical infrastructure," such as power plants and refineries. Demands for budget discipline gave way to economic stimulus spending and the biggest federal deficit in 10 years.

Federal action in response to the terrorist attacks did have limits. Policies that deviated from the Reagan–Clinton formula were often justified as temporary arrangements that would be reversed once conditions returned to normal. And in some areas, the Bush administration declined to "do whatever it takes" to protect the homeland. Leaders made political calculations about where the old formula should be bent and where it should be respected. For example, the Bush administration pressed ahead with massive tax cuts that aggravated budget deficits, and continued to promote free trade despite concerns about the security of container traffic.

Still, the crisis of 9/11 suggested that there was something incomplete, and perhaps false, about the Reagan–Clinton formula. Bromides about small government and free markets clearly did not hold sway when a vital national interest was threatened. In moments of crisis, responsibility still fell squarely on the shoulders of policymakers at the center of the federal government. Any promises that had been made about limiting the discretion of top political leaders proved to be reversible under duress. The Bush administration also invaded Iraq, a rash and costly act that deviated radically from the late-1990s rhetoric about government restraint. Overall, US leaders reverted to a style of governing that was more pragmatic and less concerned with ideological consistency.

Bending the Financial Rules

These facts were underlined by the next national crisis. Markets panicked in 2008 when it became evident that several major financial institutions were insolvent. As in 2001, there had been warnings of a looming crisis, but again warnings were ignored. Deregulation of the financial sector in keeping with the Reagan–Clinton formula had prompted many institutions to go too far in lending and speculation. Experts feared a reprise of the Wall Street crash of 1929 and the Great Depression of the 1930s.

This time, bold federal actions averted disaster. But principles about limited government, free markets, and fiscal discipline were bent once again in the process of addressing the crisis. The federal government provided $700 billion in emergency aid to the financial sector, took direct control of several big financial institutions, and became the majority shareholder in General Motors and a minority owner of Chrysler. It also adopted a $787 billion economic stimulus program. In 2009, the federal deficit rose to 10 percent of GDP, the biggest since World War II.

The Federal Reserve also shifted dramatically during the crisis. Previously, experts had insisted that central banks like the Fed should guard their independence, focus on inflation-fighting while setting interest rates, and avoid buying government debt. In 2008, however, the Fed coordinated closely with the Treasury Department and cut interest rates deeply, putting aside concerns about inflation. It also bought massive amounts of government debt through a policy it called "quantitative easing."

Henry Paulson, who served as Treasury secretary under Bush at the start of the financial crisis, later said in his memoir that the administration's actions were "deeply distasteful . . . [but] absolutely necessary" to avoid an "economic catastrophe." Bush shared Paulson's distaste but agreed that intervention had been necessary. Measures to save auto manufacturers were especially troubling to Bush. "[I] believed strongly that government should stay out of the auto business," Bush wrote in his own memoir, but "I had to safeguard American workers and families from a widespread collapse." He acted despite the strong opposition of many Republicans in Congress.

Federal Reserve Chairman Ben Bernanke also promised to "do whatever was necessary" during the crisis. He later explained that "policymakers confronted with extraordinary circumstances must be prepared to think outside the box, defying orthodoxy if necessary."

The next administration, headed by President Barack Obama, thought about the financial crisis in the same way. Shortly after winning the November 2008 election, Obama told journalists that "we have to do whatever it takes to get this economy moving again. . . . [W]e shouldn't worry about the deficit next year or even the year after that. . . . [T]he most important thing is that we avoid a deepening recession."

In his 2014 book, Timothy Geithner, Obama's first Treasury secretary, compared the handling of the financial crisis to the challenges confronting a surgeon who must make "life-or-death decisions in a fog of uncertainty." Officials must act decisively, Geithner said, "even if it fuels perceptions of an out-of-control, money-spewing, bailout-crazed Big Government."

The response to the global financial crisis was justified as a temporary effort compelled by a national emergency, just as in 2001. The hope among policymakers was that the country would again return to normal, and to the governing principles of the late 1990s. Still, the crisis of 2008 had deepened the shadow over the Reagan–Clinton formula. For the second time in a decade, policymakers in Washington had put that formula aside and governed in a different style. America's leaders, it turned out, were deeply pragmatic. When vital interests were threatened, leaders of both parties did whatever seemed necessary to avoid catastrophe.

The 2020 pandemic was the last and fatal blow to the credibility of the formula.

Mounting Pressures

It soon became clear that the United States would not return to normal after the financial crisis. Public faith in the old formula was collapsing. Americans on both ends of the political spectrum organized angry protests against the status quo. The conservative Tea Party movement spread across the country in 2009, and the left-of-center Occupy movement took off two years later.

Frustration with economic inequality and insecurity had been simmering in the United States for several years. Free trade accelerated the decline of American manufacturing, bringing wage cuts and job losses for the working class. Middle-class incomes had stagnated over the previous quarter-century, while the costs of education and health care spiraled. By contrast, upper-income Americans did very well. Economic inequality in the United States reached levels not seen since the early twentieth century.

At the same time came the reopening of fissures within American politics. Before World War II, deep political splits between different regions of the country—known as sections—had been viewed as a permanent feature of the political landscape. Politics in Washington was seen as a business of peacemaking between sections that had distinct ideas about the role of government generally, and the federal government in particular. Southern states notably resisted federal interventions in civil rights and social policy.

In the decades following World War II, many political scientists thought that sectional differences were fading away because of improvements in transportation and communications across the country. This made it possible to contemplate an expansion of the federal government's role in daily life. But deep splits in the American polity seemed to reemerge in the 2000s. People talked more often about differences between red states and blue states, and about polarization in Washington politics. It seemed that politicians had lost the knack for governing such a fractured country. One result was prolonged political warfare over major policies such as Obama's health care program. Another was gridlock—the inability of politicians in Washington to get anything done at all.

A third, long-simmering trend had to do with racial justice. Anticrime policies of the 1980s and 1990s led to a doubling of imprisonment rates for Black men, while those for white men grew incrementally. The wage gap between the races also widened. Deference to state governments meant weaker enforcement of federal civil rights laws, including protection of voting rights. Police brutality against Black Americans became more visible via smartphones and social media.

By the late 2010s, faith in the Reagan–Clinton formula was waning rapidly. Although politicians still paid homage to the old consensus in rhetoric, they abandoned it with alacrity in moments of

crisis. Public confidence in the formula was also exhausted: as a practical matter, it no longer seemed to work. In the late 1990s and early 2000s, the Gallup Poll found that a large majority of Americans were satisfied with the way things were going for the country. Only a quarter were satisfied in the decade after 2007.

But there was no agreement on what should replace the old formula. During the 2016 presidential campaign, voters were divided between three distinct paths. Fifty-eight million people voted in the Democratic and Republican primaries during that campaign. Roughly equal numbers voted for Hillary Clinton, who was closely tied to the old formula; Bernie Sanders, a self-declared socialist; and Donald Trump, a conservative ethno-nationalist.

Viral Breakdown

Americans who were already in poor health in 2020 were more likely to die from COVID-19. The disease was just the final and fatal blow. COVID-19 operated in the same way on the Reagan–Clinton formula. The pandemic revealed more evidence of vulnerabilities in American society, some of which had been magnified by the formula itself. Moreover, the pandemic demonstrated once again how leaders were prepared to throw the formula aside in moments of crisis. By the summer of 2020, no one could say that the paradigm inherited from the 1990s really described how the United States was governed in the twenty-first century.

The pandemic began in Wuhan, China, in late autumn 2019 and spread rapidly around the world. By the summer of 2020, millions had been infected worldwide and nearly 800,000 had died, including more than 170,000 Americans. Warnings that the United States might be hit by a disaster like this had been ignored yet again. States and cities struggled to limit contagion and aid the sick. In New York City, one of the first parts of the country to feel the brunt of the pandemic, hospitals were quickly overwhelmed. By midsummer, state and local governments across the country were being severely tested as well.

Government at all levels—federal, state, and local—took radical measures as the disease spread. A national emergency was declared on March 13. By the end of March, the federal government had banned nonessential crossings of land borders and prohibited entry by air or sea for foreign nationals from more than 30 countries. By April, more than forty states had ordered people to stay at home and businesses to close. Trump invoked the Defense Production Act, a relic of the early Cold War, to compel production of medical supplies by General Motors, General Electric, and other companies.

Experts feared that the stay-at-home orders and restrictions on travel would trigger an economic collapse rivaling the Great Depression. Policymakers took dramatic steps to counter this risk as well. In March 2020, the federal government introduced a $2 trillion economic stimulus package, with even more aid expected. This prompted predictions that the federal budget deficit would reach 20 percent of GDP in 2020. Reprising its dramatic actions of 2008, the Federal Reserve promised to purchase as much government debt as needed to keep markets functioning.

All of these measures broke with the Reagan–Clinton formula, and state and federal policymakers justified them in the now-familiar way. They behaved and talked like pragmatists. In March 2020, New York Governor Andrew Cuomo promised to "do whatever is necessary to contain this virus." At the same time, Democratic leaders in Congress urged "a Marshall Plan . . . on a continental scale" to fight the pandemic. A few weeks later, Federal Reserve Chairman Jay Powell promised that the central bank would respond "forcefully, proactively, and aggressively." Powell advised Congress to act boldly too, warning that this was "not the time" to let deficit concerns "get in the way of winning this battle."

Trump's response was more complicated. He was already a harsh critic of key aspects of the Reagan–Clinton formula, such as its commitments to free trade and more open immigration. In fact, his administration exploited the crisis to impose new restrictions on immigration, including limits on the ability of foreign students to attend American universities. At times, Trump also echoed the rhetoric of pragmatism. In February 2020, he promised to "do whatever is necessary" to protect public health. In March, Trump reaffirmed that he would "never hesitate to take any necessary steps to protect the lives, health, and safety of the American people."

In practice, however, Trump often refused to "do whatever is necessary." At critical moments, his administration dragged its heels or declined to act at all. Trump repeatedly denied the seriousness of the pandemic and predicted that it would run its course quickly. The federal government used its powers, such as those granted under the Defense

Production Act, reluctantly. It declined to formulate a national response plan or help states with coordinating their activities. Trump disparaged experts within federal agencies and touted remedies for COVID-19 that were untested and dangerous. His administration persisted with a challenge to the Affordable Care Act, threatening access to health care for millions of Americans.

Why did the Trump administration react this way? Part of the answer lies with the character of the president himself: his self-absorption and indiscipline, incompetence in managing the complex operations of federal government, and unwillingness to take advice. But political calculations also played a role. Trump played on the country's political divisions. Republican-dominated states were less affected than Democratic states in the early months of the pandemic. And even as the pandemic spread more widely, conservatives protested against preventive measures such as lockdowns and mask orders. Trump refused to take steps that would alienate his political supporters. Instead, he reinforced their skepticism about the severity of the crisis. But many other voters were angered by the Trump administration's policies as the death toll increased.

No other advanced nation managed the pandemic as badly as the United States. This was not entirely the fault of the Trump administration. The pandemic exposed weaknesses in the country that had been building up for decades. Essential governmental capabilities were eroded after years of antigovernment rhetoric, which had been an essential part of the Reagan–Clinton paradigm. Cutbacks made in the name of small and efficient government undermined the ability of public health agencies and public hospitals to handle the surge in demand for services. Efforts to shrink the social safety net over the preceding thirty years left low-income workers more vulnerable when the economy shut down.

Black Americans suffered disproportionately during the pandemic. Early evidence showed that Black deaths were double what would be expected based on population share. Disparities in wealth, physical well-being, and access to medical services likely contributed to the gap between white and Black death rates. Anger over racial injustice was stoked by more police killings in the spring of 2020, and massive protests erupted in more than 100 American cities.

These protests prodded politicians in both parties, and at all levels of government, to reconsider many of the harsh policing measures adopted during the Reagan–Clinton era. Again, Trump was an exception: he disparaged the Black Lives Matter movement and called for a return to law and order. But polling data still showed broad support for police reforms, and Trump's influence over action by state and local governments was limited.

The Next Chapter

The first two decades of the twenty-first century provided a lesson about the dangers of overconfidence. Many US policymakers began the century believing that they had solved the age-old problem of governing well—that they had discovered a surefire formula for achieving domestic tranquility, prosperity, and national security. Reality provided a wake-up call. The Reagan–Clinton formula had dangerous side effects that took time to emerge. It turned out that the world was full of dangers the formula had not accounted for.

A longer view of history might have prevented overconfidence in the first place. Nothing that happened after the turn of the millennium was new: for every strain and shock experienced between 2000 and 2020, there was a parallel in the past. The United States had experienced earlier waves of terrorism, financial crises, populist upheavals, pandemics, and mass protests over inequality and racial injustice, but it seemed as though all of these historic vulnerabilities were forgotten. Some commentators in the 1990s suggested that the country was taking a "vacation from history." In the 2000s, policymakers were often surprised when history repeated itself.

The United States will be governed differently in coming years.

The world is more dangerous in 2020 than many US leaders believed it was in 2000, but not more dangerous than in most years of the nation's past. Yet there is at least one factor that might be new: heightened public expectations about the role of the federal government in responding to crises. Since the 1930s, the federal government has become more clearly responsible for protecting people against major shocks. In the past, national leaders were not always expected to do "whatever it takes" to restore normalcy—but they are now. This responsibility puts an immense strain on the federal government's capabilities.

One response to the country's current circumstances might include a program of reforms that address the weaknesses of the Reagan–Clinton formula, such as federal policies to protect Americans more fully from economic downturns, increase access to health care and education, and fight racial discrimination. The federal government might also improve its capacity to deal with major shocks—for example, through improved contingency planning, more investment in emergency preparedness, and better mechanisms to distribute economic aid.

Certainly a strong case can be made for pursuing such reforms. There is always a risk of another terrorist attack, financial collapse, or pandemic. And there are new challenges, too. Climate change will bring immense social and economic disruption at home and abroad. Technological advances—such as automation and artificial intelligence—will threaten old industries and professions. The rise of China is stirring concerns about new threats to US influence and national security.

But there are many reasons why it will be difficult to pursue these reforms. One consideration is money. For the next 30 years, most of the federal budget will be consumed by spending on entitlements for the baby boom generation, such as Social Security, Medicare, and Medicaid. Even before the pandemic, experts were predicting that these obligations would drive federal indebtedness to an unprecedented level by 2040. Of course, taxes could be raised to offset increased spending, but that would be deeply controversial and divisive.

This leads to a more serious difficulty: political polarization, or what was once called sectionalism. Deep divisions among Americans about the proper role of the federal government are unlikely to disappear over the next few years. As Trump has demonstrated, these divisions are potentially dangerous. National leaders may be tempted to seek short-term political advantages by stoking tensions, at the price of long-term political instability.

In August 2020, the Democratic presidential candidate, former Vice President Joe Biden, proposed a different path, promising to govern for "all of us" rather than aggravating the "clashing interests of red states and blue states." But Biden's approach does not fully resolve the problem of polarization. Even if divisions are not actively exploited, they will make it hard for federal policymakers to pursue ambitious reforms. To maintain unity and avoid gridlock, policymakers might avoid controversial subjects. Or they might engage in intensive brokering—a slow and messy style of politics that was the norm for much of American history. This is another reason why we should expect pragmatism, rather than dogmatism, to be a valued commodity in coming years.

The real error of the 1990s might not have been the exact content of the Reagan–Clinton formula. The bigger mistake might have been thinking that any simple formula for governing—"a single sustainable model for national success," as George W. Bush put it—was attainable. The past two decades have reminded us that the world is too complicated for simple formulas. Principles have proved to be important but not inviolable. In reality, American policymakers have survived crises through pragmatism, improvisation, and bargaining. This is likely to continue as the dominant style of governance in the rocky years ahead. ■

"COVID-19 is a game-changer for the energy markets, with far-reaching consequences both for those who work in the industry and for the rest of us."

Energy After COVID: The Beginning of the End of Oil?

MICHAEL T. KLARE

Like so many things, the global energy system has been profoundly shaken by the COVID-19 pandemic. In the spring of 2020, with much of the world in lockdown and widespread travel restrictions in place, people stopped driving to work and flying on business and recreational trips, factories closed, and malls were shuttered—sharply reducing the need for energy of all types. According to the International Energy Agency (IEA), an intergovernmental organization based in Paris, net world energy demand will decline by 6 percent in 2020 as compared with 2019—the largest such reduction in 70 years in percentage terms, and the largest ever in absolute terms. Some recovery is anticipated in 2021, assuming global economic activity resumes. But the damage inflicted on the energy industry by COVID-19 has been severe and is likely to last for years to come—and, in some cases, to prove irreversible.

The transportation sector, including road, rail, air, and sea travel, was particularly hard hit by the lockdowns, and its demand for gasoline, diesel, and aviation fuel dropped precipitously. In April, world oil consumption was down by an astounding 29 percent compared with the same month in 2019, the IEA reported; in May, it was down by 26 percent. Given that oil supplies were widely abundant at the beginning of the year, the collapse in demand knocked the bottom out of prices, with devastating consequences for the companies that extract, refine, and distribute petroleum products. The credit rating agency Fitch estimates that oil and gas exploration and production companies worldwide will lose $1.8 trillion in revenue in 2020 due to the pandemic, with extensive ripple effects including corporate bankruptcies, abandoned drilling projects, and large-scale job destruction.

While oil consumption has been especially depressed by the pandemic, it is hardly alone. Demand for almost every major source of energy—oil, coal, natural gas, nuclear power, and renewables—has been battered. But the extent of the decline has been unevenly distributed among them. Some, like oil and coal, have dropped precipitously, while others, notably nuclear and natural gas, have had a more moderate slide. The renewables category, encompassing hydropower, wind, and solar, might even post a modest gain by the end of 2020. The energy industry comprises giant oil companies as well as state-owned enterprises and small local cooperatives, so these variations can have far-reaching economic effects.

"The energy sector that emerges from the COVID-19 crisis may look significantly different from what came before," the IEA stated in "Global Energy Review 2020," a report published in April. "Low [fuel] prices and low demand in all subsectors will leave energy companies with weakened financial positions and often strained balance sheets." Private sector firms with high exposure to market prices, such as oil, gas, and coal producers, will experience the most severe financial impacts. For them, "market concentration and consolidations are likely."

Equally harsh outcomes can be expected for state-owned energy companies. In countries like Algeria, Nigeria, Russia, Saudi Arabia, and Venezuela, they play a major role in financing government operations. The leaders of these countries need oil prices to remain above a certain level to balance their budgets and pay for military expenditures and public services. When prices are high,

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they can retain public loyalty by financing subsidies for families and engage in foreign ventures such as military interventions and arms transfers. But when prices crash, as they did in the early stages of the pandemic, their governing capacity is greatly diminished. The coronavirus pandemic is thus likely to have a powerful impact not only on private companies, but also on the fates of governments, and perhaps even on the global balance of power.

Changing the Mix

To understand the coronavirus pandemic's impact, it is useful to start by taking a quick look at the world's energy profile and how it was trending before 2020. From this perspective, it becomes easier to detect the important ways in which the energy landscape is being altered by the pandemic.

Before the coronavirus struck, the share of the total energy supply held by each of the major fuels had remained relatively stable for many decades, with oil the leading source, coal second, and natural gas third. In 2018, according to the IEA, oil accounted for one-third of global energy consumption; coal, the long-time runner-up, 28 percent; and natural gas, a rising star, 24 percent. Thus, despite all the talk of reducing global carbon emissions to slow the pace of climate change, the three fossil fuels together accounted for a full 85 percent of the global energy market—only one percentage point less than in 2000. The remaining 15 percent was divided between renewables, with 10 percent, and nuclear, with 5 percent. (These percentages exclude biomass, such as wood and charcoal, gathered and used by individuals.)

The damage inflicted on the energy industry is likely to last for years.

Before COVID-19, the IEA, like most energy analysts, assumed that this distribution would persist well into the future. Although it expected that policies to address climate change that have been adopted by many countries would continue to spur the growth of renewables and curb the use of fossil fuels, especially coal, it did not envision a significant challenge to the existing hierarchy of energy sources. In its "World Energy Outlook 2019," the agency predicted that even with strict adherence to governmental mandates to curb emissions—which could not be taken for granted—oil would remain dominant in 2030, accounting for 31 percent of world energy demand. Coal and gas would be tied for second place, each supplying approximately 25 percent. Renewables were expected to get a huge boost, rising to 15 percent of world supply, but still trailing far behind fossil fuels.

In the wake of the pandemic, these projections appear highly questionable. Although it is too early for revised estimates, it is likely that there will be significant shifts in allocation of demand among the major fuels—especially oil, coal, natural gas, and renewables.

Peaking Demand

At the beginning of this century, energy experts worried over what was seen as the near-term arrival of "peak oil"—the moment when global petroleum production would top out and begin an inexorable decline, sowing economic chaos around the world. Some analysts predicted that the moment would arrive as early as 2015 or 2020. But the introduction of new extractive technologies, notably hydraulic fracking and the deployment of drilling rigs in ever deeper ocean waters, has enabled the world's giant energy companies to vastly expand global reserves of recoverable oil. The specter of peak oil disappeared.

Now, in its place, a new specter has emerged: "peak oil demand," the moment at which the world's thirst for petroleum reaches a maximum and begins an inexorable decline of its own. Before the pandemic, this transformative moment was thought by the major oil firms to lie safely in the distant future. Now, thanks to the coronavirus, it is within sighting distance.

Oil's waning dominance was already evident in the projections released by the IEA in November 2019, before COVID-19 made its appearance. As a result of more stringent fuel-efficiency standards for automobiles in Europe, Japan, and North America, and the growing popularity of hybrid and all-electric vehicles (EVs), the IEA predicted that oil demand in those regions would decline between 2020 and 2040. However, it also projected that rising demand in the developing world—especially in Asia, Africa, and the Middle East—would more than compensate for declines elsewhere, leading to a net gain worldwide. Underlying this assumption was strong confidence in Asia's continuing economic

expansion, which was expected to produce a burgeoning middle class with an insatiable appetite for gasoline-powered vehicles and frequent air travel.

All these assumptions now have been thrown into disarray. There can be no dispute about the pandemic's immediate impact: average world road transport fell by an astonishing 50 percent during the first three months of 2020 from the same period in 2019, while air travel in many areas plummeted 90 percent. These activities are slowly picking up again as economies reopen. But net oil consumption is still expected to fall by 8.1 million barrels per day in 2020, or about 8 percent below the 2019 record of 100 million barrels.

Upended Assumptions

Clearly, there are many reasons to suspect that earlier assumptions of world oil demand continuing to grow well into the 2030s are no longer valid. The pandemic caused billions of people around the world to alter their daily routines, with many forced to work from home and refrain from business travel. No doubt, many pre-COVID routines will resume when a successful vaccine is deployed, but there is considerable evidence to suggest that some will not. Working from home, for example, has proved highly popular with many white-collar employees (and their employers), which could bring about a long-term decline in automobile commuting hours. Likewise, businesspeople have found ways to perform their vital tasks with much less air travel—through videoconferencing and other technologies—and they are liking it that way.

Policymakers in Europe and elsewhere are also using this time to accelerate the transition to EVs. Drawn by hefty subsidies available in many European countries, buyers have flocked to EVs at a time when sales of all types of cars have declined. Germany had an 8.4 percent increase in EV sales in the first half of this year (compared with a 3.4 percent increase a year ago) even as overall auto sales slumped by 35 percent. In France, EV market share has jumped to 9 percent so far this year, from 2.5 percent in 2019, while Sweden has seen a surge to 25 percent, from 10 percent last year. To accelerate this trend, European leaders have unveiled an assortment of new incentives for EV purchases. In May, French President Emmanuel Macron announced plans to provide an 8 billion euro subsidy to domestic auto companies, aiming to make France the leading manufacturer of EVs in Europe. In China, meanwhile, generous government subsidies for EV automobile purchases have been extended through 2022 as part of a pandemic stimulus package, ensuring brisk sales now that economic activity there has picked up again.

Given such trends, it is likely that oil demand among the older industrial powers will decline faster than indicated by the projections released before COVID-19. But what about China and India, the two biggest consumers in Asia? Most analysts had assumed that both economies would continue to enjoy high growth rates in the years ahead, driving steady increases in their demand for oil. But the pandemic—and the increasingly anti-China policies being pursued by the Trump administration—throw this into question. The International Monetary Fund (IMF) projected in June that China will post a growth rate of just 1 percent in 2020—its lowest in decades—and that India's gross domestic product will contract by 4.5 percent. Both countries are expected to rebound as their economies open up, but there are doubts about their ability to sustain the strong growth rates they enjoyed in recent decades.

India's economy is still suffering from the ravages of the pandemic, while China's rebound is being fueled by debt-financed infrastructure construction, which is hardly sustainable. And under pressure from stiff US tariffs, China's exports are shrinking, further complicating its prospects for long-term growth. It is hard to imagine that the middle classes in China and India will engage in the free-spending habits previously envisioned, now that many have had their finances severely battered by the pandemic. The outlook for many other large developing economies is equally discouraging: according to the IMF, Brazil's economy will contract by 9.1 percent in 2020, Mexico's by 10.5 percent, and South Africa's by 8.0 percent.

Add all these factors together and it is not hard to conclude that the arrival of "peak oil demand" has moved much closer as a result of the coronavirus pandemic. This is the conclusion drawn by many major international oil firms, which have begun to abandon some of their costliest projects and write off billions of dollars' worth of assets now deemed unprofitable.

Royal Dutch Shell announced a $22 billion write-down in the value of its undeveloped assets in June, saying lower oil prices made them too costly to develop; BP set a $17.5 billion write-down for the same reason. Total, a somewhat smaller French company, said it would write off

$8 billion of its assets, mainly bitumen fields, commonly known as tar sands, in Canada. "Beyond 2030," the company noted, "given technological developments, particularly in the transportation sector, Total anticipates oil demand will have reached its peak."

Some of the largest oil companies are shifting their investments into carbon-free sources of energy, both to comply with rising governmental and investor pressures and to ensure a corporate future beyond oil. BP announced in August that it will increase its investment in low-emissions technologies by tenfold over the coming decade, to $5 billion per year, while reducing its oil and gas output by 40 percent. "What the world wants from energy is changing, and so we need to change, quite frankly, what we offer the world," said Bernard Looney, BP's chief executive officer.

Coal's Demise

Even before the pandemic, global demand for coal was showing signs of irreversible decline. As the most carbon-dense of the fossil fuels (and thus responsible for the highest ratio of carbon dioxide emissions when consumed), coal has become a primary target of environmental activists and government policymakers seeking to reduce emissions of climate-altering greenhouse gases. One of the easiest ways to cut emissions, policymakers have discovered, is to substitute low-cost natural gas—the least carbon-intensive of the fossil fuels—for coal in electricity generation. In many areas, meanwhile, wind and solar power—which, unlike gas, produce no carbon emissions at all—have become even cheaper and more attractive sources of electricity. Still, as the IEA's pre-pandemic projections indicated, coal was expected to remain a major source of the world's energy well into the future. The coronavirus has likely made that forecast obsolete.

Renewables will grow even faster than previously estimated.

As the pandemic took hold in early 2020 and economic activity slumped, electricity use around the world declined substantially. To continue generating power while avoiding severe losses, electrical utilities largely eschewed coal, which for many had become their most expensive fuel source, and relied instead on more affordable supplies of gas, wind, and hydropower. As a result, global coal demand is expected to decline by 8 percent in 2020—the largest drop since World War II. Renewed economic activity in 2021 will restore some of that lost demand, but many analysts predict that as policymakers accelerate their efforts to curb carbon emissions, and major investors turn away from new coal projects, coal will never fully recover from its 2020 decline.

The plunge in coal consumption has been particularly pronounced in the United States. According to the Energy Information Administration (EIA), an agency of the US Department of Energy, the use of coal to generate electricity will drop 25 percent in 2020, the largest decline since the Great Depression. At the same time, the demand for renewables—buoyed by steadily declining costs—is expected to rise by an estimated 11 percent this year. As major financial institutions and retirement funds shun investment in new coal projects and many unprofitable plants are decommissioned, the prospects for coal in the United States appear dim—despite President Donald Trump's oft-repeated pledge to revive the industry. If the EIA's projections prove accurate, America's hydroelectric dams, wind farms, and solar panels combined will produce more electricity than coal in 2020, for the first time in the nation's history.

China, which accounts for half of the world's coal consumption, remains the big unknown. During the first quarter of this year, when Chinese authorities imposed strict lockdowns across the country and many factories were shuttered, coal consumption fell by 8 percent. As China has reopened its economy, its demand for coal has increased, and various regional governments have announced plans to build new coal-fired power plants—among the few such announcements made since the onset of the coronavirus. (Japan has also initiated efforts to build new coal plants, largely to replace older ones now facing retirement, though it is unclear whether these plans will be embraced by Yoshihide Suga, the successor to Prime Minister Shinzo Abe, who resigned abruptly in late August.)

But China has also undertaken a massive effort to decarbonize its economy through the widespread installation of wind farms and solar panels, so it is not clear whether the construction of new coal plants is intended more as an economic stimulus or as a future source of energy. If these are just make-work projects, China is unlikely to consume coal to the exorbitant extent that it has in the

past—and demand is falling sharply elsewhere too, a trend accelerated by the pandemic.

Renewables Ascendant

Just as the decline in coal consumption predated the pandemic, an upswing of renewable energy sources—primarily hydropower, wind, solar, and geothermal used to generate electricity, and biofuels used in transportation—was already underway. In the most recent edition of its "World Energy Outlook," released in November 2019, the IEA projected that net renewable energy consumption would increase by 64 percent between 2018 and 2030, the fastest growth rate of any source. Given that renewables commanded such a small share of the market in 2018, however, they were still expected to be overshadowed by each of the fossil fuels in 2030. Now, in light of the coronavirus pandemic, it is likely that these projections will have to be substantially revised, as renewables grow even faster than previously estimated.

The pandemic has highlighted two important features of renewable energy systems—especially large wind farms and solar arrays—that carry particular weight with energy officials in a time of economic stress. In many markets, not only have they become cheaper than coal and natural gas, but they also can be installed and brought online more quickly than other large power facilities, and begin generating revenues that much faster. In the United States, installing wind power now costs 40 percent less than it did in 2010, and prices continue to fall as operators erect ever larger (and more efficient) turbines.

Renewables may also benefit from a distinctive feature of the pandemic experience: with many factories and coal-fired power plants shuttered as a result of mandatory lockdowns and drops in energy use, cities like Beijing and New Delhi that were once blanketed in noxious smog suddenly saw blue skies, to the delight of millions. This has put further pressure on government officials—especially in countries like India and China that burn a lot of coal and have smog-choked cities—to accelerate the switch to renewables.

Although it is too early to make any firm predictions about the post-COVID era, it appears as if the growing appeal of renewables is also being driven by lifestyle changes stemming from the pandemic. In many parts of the world, there are signs of a shared craving for a healthier, greener future—with less smog, less commuting, fewer malls and office towers, and cleaner skies and waters. In the United States, bicycle sales have doubled since the onset of the pandemic; in Europe, many prominent cities, including Paris, London, and Milan, have closed large parts of their downtown areas to automobile traffic and added hundreds of miles of new bike paths.

Geopolitical Jolts

The annual reports of the EIA, the IEA, and the major oil companies issued in years past conveyed the clear impression that few of the major variables in the global energy mix—the relative demand for oil, coal, gas, and so on—change from year to year. But the COVID-19 pandemic is one of those rare occurrences, akin to a world war or global depression, that causes a major realignment of trends. Energy of all types will continue to flow in the post-COVID era, of course, but the relative shares of different sources, and the corresponding prospects of the major producers, are likely to undergo a significant readjustment. Most importantly, oil consumption is likely to increase at a slower rate than previously assumed and to reach a peak in demand before 2030, rather than well after it; coal will come to a swifter-than-expected demise; and renewables will grow much faster than once anticipated.

Given the vast scale of the global energy enterprise, with trillions of dollars in annual revenues, any adjustment of this magnitude will have profound social and political effects along with the obvious economic consequences. The rapid decline in consumption of coal will trigger additional bankruptcies in the already stricken industry, putting even more miners out of work. Many of them are expressing their desperation through political means, pressuring policymakers to keep the industry afloat.

Trump tapped into this sentiment in his 2016 presidential campaign, often appearing with coal miners carrying signs with slogans like "Trump Digs Coal." Poland's ruling Law and Justice Party similarly has curried favor with unionized Polish miners by promising to retain coal as a major source of the nation's energy supply, despite its commitments to the EU to lower its carbon emissions. Meanwhile, Australian Prime Minister Scott Morrison has repeatedly downplayed the role of climate change in causing the catastrophic wildfires that scorched his country in 2019—a stance many observers attributed to the support Morrison has long received from Australia's powerful coal industry.

The impact of declining revenues in the oil industry is likely to produce even more far-reaching consequences. As with coal, oil tycoons and ordinary oil workers have sought to preserve their profits and jobs by engaging in the political process and rallying behind candidates, like Trump, who promise to reject environmental rules that discourage the extraction and use of petroleum.

Oil-exporting countries are likely to feel the most direct effects of the industry's decline. They rely on oil revenue to finance a large share of central government budgets—as much as 40 percent in the case of Russia, and 60 percent in Nigeria and Saudi Arabia. Any significant reduction in oil income will constrain political leaders' ability to carry out key functions and retain public support.

In the past, declines in the price of oil—such as the one during the 2008 global financial crisis—undermined the governing capacity of major oil-exporting states, including Algeria, Nigeria, Syria, and Venezuela, contributing to widespread civic disorder. There are some revealing early signs of how such trends may play out in the future as the global market for petroleum shrinks. Just as COVID-19 was beginning to spread, Russia and Saudi Arabia engaged in a price war. The Saudis boosted production to lower prices, aiming to punish the Russians for refusing to agree on a joint production cutback. Only after an intervention by Trump, who feared the damage that falling prices would inflict on US oil producers, did Moscow and Riyadh agree to end their dispute and rein in production. With further contractions in the global oil market likely in the years ahead, other such disputes—potentially with more severe outcomes—can be expected.

A long-term decline in the oil market could lead to the unraveling of governments.

A long-term decline in the oil market could lead to the unraveling of governments that have used oil revenues to finance foreign escapades and public subsidies. Signs of discontent can already be detected in many oil-exporting countries. In Russia, President Vladimir Putin's popularity rating has dropped to an all-time low—a downturn ascribed to his poor handling of the pandemic and a substantial reduction in public benefits resulting from dwindling oil and gas revenue. So far the Kremlin has succeeded in preventing this falling support from turning into public displays of opposition in the major cities like Moscow and St. Petersburg. But sustained demonstrations arose in the far eastern city of Khabarovsk over the Kremlin's removal of a popular governor. Fears of more such demonstrations erupting—possibly in larger cities closer to Moscow—may have prompted Kremlin insiders to plot the near-lethal poisoning of leading Putin critic Alexei Navalny on August 20, reportedly with a military-type nerve agent.

In Saudi Arabia, the monarchy has managed to retain firm control despite a similar reduction in public subsidies. But signs of division within the royal family have emerged in the past few years, and many observers question the ability of the de facto ruler, Crown Prince Mohammed bin Salman, to deliver on his plans to oversee a transition from dependence on oil to a balanced, innovative economy. In 2016, Prince Mohammed unveiled an ambitious plan called "Saudi Vision 2030" to spur investment in non-petroleum sectors of the economy. As critics have noted, however, the plan envisions a continuing stream of revenue from high-priced oil exports to finance the new initiatives. With oil prices expected to remain low, it is hard to imagine how this will succeed.

A change in leadership brought about by these trends in any of the major oil-exporting nations would have immense implications for the international political order. It could lead to new alignments among the major powers or outbreaks of civil and regional conflicts.

COVID-19 is a game-changer for the energy markets, with far-reaching consequences both for those who work in the industry and for the rest of us. There will be hardship for many who are employed by oil, coal, and natural gas companies that are being downsized or bankrupted as a result of the pandemic and accompanying shifts in government and investor priorities. Many of these shifts were expected to occur in any case, but over a longer period of time; now they are accelerating. The good news is that the long-awaited global transition from reliance on fossil fuels to renewable energy sources that do not pose such a threat to the climate is likely to occur much faster than previously assumed. This is one outcome of the pandemic that surely deserves applause. ■

COVID-19 and the Long-Standing Vulnerabilities of Older Adults

DEBORAH CARR

The coronavirus pandemic has devastated the health, economic well-being, and emotional security of millions of people in the United States and worldwide. As of mid-August 2020, more than five million Americans had contracted COVID-19, and more than 170,000 had died from the illness. The death toll has been especially steep for older adults, who are vulnerable not only to the virus, but also to the social isolation, stigmatization, and suffering the pandemic has wrought.

Although COVID-19–related deaths can strike anyone, the risk rises dramatically with age. According to the US Centers for Disease Control, adults ages 65 and older make up 16 percent of the US population, yet they account for one-third of the country's COVID-19 cases, half of related hospitalizations and intensive care unit admissions, and a staggering 80 percent of deaths associated with the virus.

Media coverage of the pandemic has underscored its tragic impacts on older adults. Televised images of frail octogenarians slumped over in their wheelchairs in overcrowded hospital hallways, and dying nursing home residents waving to their grandchildren outside their windows, convey the depths of their anguish.

The impact of the pandemic has been indelible and undeniable, yet it also has shed light on important social problems that existed long before the word "coronavirus" entered our collective vocabulary. Three persistent challenges have been exposed and intensified by the pandemic: socioeconomic and racial disparities in mortality; a dire shortage of long-term care workers; and lack of preparation for end-of-life decision making.

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SOCIAL STRATIFICATION OF DEATH

On the surface, epidemiologic data and media portrayals would lead us to believe that COVID-19 is "caused" by old age. That conclusion would not be accurate.

It's true that older adults have weakening immune systems, which render them vulnerable to the virus. Frail older people also tend to live in group settings like nursing homes or assisted living facilities in which disease can easily spread. But old age alone does not put one at risk; millions of healthy older adults have been completely spared by the virus. The risk of contracting and dying of COVID-19 is higher for people with other comorbid conditions, like cardiovascular disease, hypertension, type 2 diabetes, and chronic obstructive pulmonary disorder, conditions that tend to be more common among older adults.

The risk of these and other major health conditions also is stratified on the basis of race and social class. Adults of all ages with fewer socioeconomic resources as well as Black and Latinx people are particularly vulnerable. Chronic illness strikes at higher rates and at younger ages among people who lack health insurance and a regular source of health care, who work in physically dangerous jobs, and who live in neighborhoods with limited access to healthy foods, parks, safe housing, and clean air. Daily and persistent stress related to economic precarity and systemic racism have been linked with chronic inflammation and related health risks.

In the pandemic era, other aspects of daily life, such as living in crowded housing, working in a frontline job as, say, a certified nursing assistant, bus driver, or grocery store clerk (or living with a loved one who holds such a job), or relying on public transit, have added new layers of risk. As a result, Black people are dying from COVID-19 at roughly the same rate as whites more than a decade older. The virus has brought into sharp focus

persistent disparities in the length and quality of life attained by Americans of all ages.

Long-Term Care Struggles

Nursing homes have emerged as the public face of the pandemic. Although less than 1 percent of all Americans currently live in nursing homes and assisted living facilities, these residents account for one in four COVID-19 deaths. Due to the rapid spread of the virus, nursing home residents in many parts of the country cannot visit with their loved ones or enjoy social activities, like movies, in their facility's common room. This isolation intensifies their suffering.

The pandemic has created daunting challenges for staff as well. Many workers at long-term care facilities are putting their own health at risk because their employers have not provided sufficient personal protective equipment and access to quick and accurate testing. These threats are heightened for low-wage workers, especially certified nursing assistants (CNAs), who risk close contact with COVID-19 as they feed, bathe, and medicate residents. They may juggle jobs at several facilities and private homes to make ends meet, increasing their exposure. Some may live in small or crowded quarters, since their meager pay is not sufficient for more spacious housing. Some are reluctant to take time off from work even when sick, for fear of being fired or losing wages.

Nursing homes have emerged as the public face of the pandemic.

When workers become ill or take time off to care for ailing family members, it's hard for their employers to find backup staff, due to a long-standing shortage of care workers. Positions like personal care aide and nursing assistant consistently rank among the fastest-growing jobs in the United States, yet there are not sufficient numbers of workers to fill openings. Part of the reason is that CNAs' median annual earnings, just under $30,000, barely bring a family of four above the federal poverty line. These jobs are disproportionately held by immigrant women and women of color. The pool of paid caregivers will shrink even further should national immigration policies grow more restrictive, or if workers succumb either to the virus or to the pressures of caregiving for loved ones with the virus.

Nursing homes have been beset by other problems, such as insufficient funding and a history of poor infection control. Medically complex care for long-stay older patients is typically reimbursed by Medicaid (the public health insurance program for people with low income), for which the reimbursement rate is substantially lower than the rate paid by private insurance or Medicare (the federal health insurance program for those ages 65 and over, which covers short stays in nursing homes). Nursing homes with many frail long-term (or low-income) patients are largely dependent on Medicaid reimbursement for their revenue. As a result, they are often underresourced, understaffed, and ultimately struggle to provide quality care, even if the hard-working staff members are every bit as concerned, dedicated, and compassionate as their peers working in better-resourced settings. The tendency of low-income older adults with complex medical situations to seek care at struggling nursing homes dependent on Medicaid contributes to a vicious cycle: those who are already the most vulnerable may receive poorer-quality care that intensifies their vulnerability.

Plan Ahead

Death is a fact of life, but Americans remain reluctant to talk about or prepare for their final days. Less than half of all US adults and their families have done advance care planning—the process of documenting and communicating their preferences for end-of-life medical treatments. Legal procedures like creating a living will and appointing a trusted confidant to serve as one's health care proxy are critical steps to ensure receiving care in accord with one's wishes and being treated with respect and dignity at the end of life.

Advance care planning is most effective when accompanied by conversations with health care providers and loved ones, so that patients can make informed choices about whether they desire potentially life-extending interventions like feeding tubes and mechanical ventilation or prefer comfort care and palliation. The capacity to exercise "choice" has arguably been undermined in the COVID-19 era, as health care facilities battle shortages of ventilators and hospital beds, and ethicists debate rationing on the basis of age and preexisting conditions. Yet these challenges make the need for advance care planning all the more urgent.

For most of the late twentieth and twenty-first centuries, the vast majority of older adults have died of diseases that progress slowly, like cancer,

congestive heart failure, and Alzheimer's or related dementias. The fairly long interval between diagnosis and death gives patients and their families time and space to think about and discuss end-of-life issues. With an infectious disease like COVID-19, however, the time period between getting sick and dying may be short and stressful, especially for older adults with comorbid conditions. The speed of physical decline may reduce a patient's capacity to think through or discuss their treatment preferences with loved ones. News outlets have reported stories of patients put on ventilators mere hours after they were visiting with friends.

Intensifying the challenge, COVID-19 is an emerging disease: health care providers do not yet have definitive data on the progression of symptoms, making advance decisions difficult. Moreover, the opportunity for a meaningful end-of-life conversation is limited among patients dying in isolation. Their communication with loved ones may take place through a rushed video call on a nurse's smartphone. The pandemic is sounding a wake-up call for Americans of all ages, but especially those who have comorbid conditions, to do advance care planning early and often—and to think about how their initial preferences may change as their health changes, and as COVID-19 infection rates wax and wane.

Policy and Dignity

International efforts are underway to develop an effective and affordable vaccine for COVID-19, while institutions ranging from schools to businesses to governments are adapting infrastructures to minimize the threat of the virus. Yet broader social programs are needed to mitigate the far-reaching consequences of COVID-19. The pandemic has cast light on and amplified some of the most persistent challenges facing the US health care system.

Policy solutions require thinking broadly and focusing on the underlying problems that have intensified the pandemic's impact on older adults, ethnic and racial minorities, people with limited economic resources, and long-term care facilities and the workers they employ. In the United States, proposals like Medicare for All (or the more moderate Medicare at 60) would expand access to public health care for Americans at younger ages. This is a critically important step because people from historically vulnerable or disadvantaged groups typically experience the onset of chronic diseases years before their 65th birthdays.

Reducing the age at which Americans are eligible for Medicare also would help younger adults engage in advance care planning. One reimbursable end-of-life consultation session with a doctor is now offered to Medicare beneficiaries, under the Affordable Care Act.

Increasing levels of Medicaid reimbursement may ultimately improve the quality of care and staffing at beleaguered nursing homes caring for vulnerable older adults. More innovative strategies to provide personal care workers with adequate compensation and career advancement opportunities would attract employees and reward them appropriately for their important work.

The United States also could follow the lead of other nations, like Australia, Austria, and the Netherlands, that have implemented mandatory prevention measures in long-term care facilities to protect both workers and patients. Specialized care sites, away from uninfected residents, would isolate those receiving treatment for or recuperating from COVID-19. Additional support such as surge staffing, specialized teams, and PPE also would increase safety for these important frontline care workers.

Death from any cause—from COVID-19 to cancer—is, of course, inevitable. Yet the pandemic has created a context in which death may come earlier for older adults, especially racial minorities, those with fewer economic resources, and those being cared for at underresourced facilities. It is time for thoughtfully devised policies that can help reduce persistent disparities in when, how, and the level of dignity with which one dies. ■

Care Work on the Front Lines

MARY F. E. EBELING

A woman stands alone on a street corner in Harlem, her hospital scrubs just visible under her unzipped puffy winter jacket. The long shadows of early April stretch along the empty sidewalk and brick buildings behind her. The streets are eerily quiet for this time of the morning. Her brown eyes appear tired but determined as she looks over the blue face mask, straight into the camera's lens. So, she is not alone after all. Someone has stopped to help her out and take a photo of her cardboard sign, with its message written in a precise but hasty script: "Please don't call me a hero. I am being martyred against my will. Defense Production Act Now!"

More Than Medicine: Nurse Practitioners and the Problems They Solve for Patients, Health Care Organizations, and the State
by LaTonya J. Trotter
Cornell University Press, 2020

During the early days of the coronavirus pandemic, this emergency room nurse, Jillian Primiano, became a meme. Fed up with the helpless gestures of performative gratitude and virtue signaling perceived in their neighbors' nightly applause for medical professionals while frontline health care workers and their patients were getting sick and dying of COVID-19, Primiano and other New York City nurses took to the streets and social media to protest that their lives were being sacrificed to the political interests of the White House.

In an interview with Slate, Primiano explained the motivation behind her meme-worthy sign. She made it at 7 a.m. before going to the protest to stand in solidarity with other nurses who didn't have adequate personal protective equipment (PPE), because "[i]f it's happening to one nurse, it is happening to all of us." She bristled at the "wartime rhetoric" of calling nurses heroes because it implied that "the deaths of health care workers and the illnesses of health care workers were inevitable, and unavoidable, when really we're being sacrificed by the refusal of the federal government to up its manufacturing of PPE."

In spite of their protests, nurses and other frontline care workers were dragged from behind the hospital curtain of obscurity to be made the heroic faces of the pandemic. Some turned to social media with tweets or Instagram posts from inside emergency rooms and COVID-19 isolation wards, using their new national spotlight to amplify their warnings on the dangers of the virus. Others were memorialized by newspapers such as the *Guardian*, which published tributes to every health care worker felled by the coronavirus and kept a running tally of the deaths. Nurse practitioners (NPs) were invited onto nightly newscasts and talk shows to share their stories from the front line. The nursing profession had never enjoyed such celebrity before.

The publication of LaTonya J. Trotter's *More Than Medicine*, an ethnographic account of the expert care work performed by nurses in hidden-away spaces of quiet desperation—nursing homes and rehabilitation centers—couldn't be better timed. Released earlier in 2020, *More Than Medicine* details and makes visible the clinical labor of nurse practitioners, a category of medical professionals unique to the US system of profit-driven healthcare.

Trotter's account in many ways follows a well-trodden path cut by classic studies in medical sociology—examinations of how surgeons undergo professionalization, or ethnographic observations of students in elite medical schools, such as Howard Becker and colleagues' *Boys in White: Student Culture in Medical School* (1961) or Paul Starr's *The Social Transformation of American Medicine: The Rise of a Sovereign Profession and the Making of a Vast Industry* (1982). But it is in Trotter's choice of whom to study, rather than in her chosen methods, that her work departs from traditional medical sociology. She forges a new way to understand just how broken

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America's health care system is, by closely observing the labor of nurse practitioners.

Web Weavers

Early in Trotter's book, we begin to glimpse how bad things were for patients, for health care workers, and for families caring for loved ones even before the pandemic. Most of the study was conducted at an outpatient nursing care facility she calls Forest Grove Elder Services, or The Grove. The nurse practitioner–managed center served close to 250 patients (whom it called "members") per year. About 96 percent of them were Black, elderly, suffering from compounding comorbidities, and insured by Medicare. In the context of the pandemic, The Grove's members are in the highest risk category for the deadly effects of the coronavirus. As I was reading, I wondered how they've coped in the pandemic.

Trotter opens the book by recounting how a nurse practitioner she calls Michelle expertly organized the administration of eye drops for Ms. Payne, an 86-year-old Grove member with dementia and cataracts. Eye drops might seem like a pretty trivial matter, but in the context of value-based care—where every clinical action, no matter how small, has a price tag—each molehill becomes a mountain to be scaled. Ms. Payne lived alone, and because she was incapable of doing it herself, someone from The Grove would need to administer the drops twice a day over the weekend. But this is where the mountain comes in: if a health care worker is sent to Ms. Payne's home to drop the medicine into each eye, that becomes a billable action, and there are limits on how much can be billed. Through a series of emails and phone calls over an entire Friday afternoon, Michelle modified the regime so that fewer home visits were needed, and she enlisted the help of a neighbor, ensuring that Ms. Payne received the care she needed.

Through such thick descriptions of the care work that NPs provide for Grove members, Trotter argues that while the professional category of nurse practitioner was created to give patients routine care, NPs now have to stretch their expertise to its limits in order to bridge the gaps for those most marginalized by medicine—the poor, disabled, and isolated—so that they don't fall through those cracks. NPs are fixers, tasked with solving the insurmountable problems created by profit-driven health care and a technocratic system of government that would rather shed the detritus of the most vulnerable in our society, patients living in economic and social precarity, than provide effective care and dignity. And the responsibility for solving these problems always seems to depend on the unpaid and invisible labor of women.

Well into the nineteenth century, women were barred from the health professions, including nursing. Male physicians and nurses, looking to police professional boundaries and protect their own jobs, argued that women were primed by "nature" to care, and therefore it was immoral for them to be paid for doing such work. It was only after the likes of Florence Nightingale and Mary Seacole did the hard work of "heroic" battlefield nursing that women nurses were able to fight for professional legitimization and enter medicine, albeit at its lowest rungs. Women-led nursing has fought for legitimacy ever since.

Care work is work. But as with most fields that rely on stratified and feminized labor, nursing in American health care is hierarchical, underpaid, undervalued, and overworked. Many of the nurse practitioners that Trotter followed went to great lengths to distinguish their work from that of the consultant physicians working at The Grove. They believe that they alone are able to understand and to act on the complex social webs that their patients inhabit—the social and economic conditions that shape their health. Whereas physicians simply parachute in to make a diagnosis, NPs are poised to solve the problems of the whole patient. Their "skills of relationship and of seeing the whole person put NPs in a position to be expert providers to those for whom economic and social precarity were daily realities," Trotter writes.

They understand and act on the complex social webs that their patients inhabit.

They do this by being astute web weavers, working with the social, technical, and bureaucratic threads that are connected to the patient. Through their web weaving, NPs cocoon the patient in a customized safety net made tirelessly by means of phone calls, emails, and walks down the corridor to talk face-to-face with a dentist or radiologist to make sure that Grove members receive the care they need. But the social support resources NPs work with have been decimated over recent decades by the federal government.

Compare the expert and professional care work that Trotter's nurse practitioners perform for their patients with the sycophantic ineptitude of White House adviser Jared Kushner and the rest of the Trump administration. In the early days of the pandemic, Kushner reportedly devised a plan to divert or deny the delivery of PPE and test kits to Democrat-led states in an election year. In September, Dawn Wooten, a nurse fired from a detention facility for undocumented migrants in Georgia, bravely went public with allegations that the Department of Homeland Security had purposely withheld life-saving gear and treatment from staff and detainees alike. The administration's actions have been responsible for the deaths of thousands of Americans, putting political profit over the lives of elderly Black patients denied ventilators or the frontline health care workers dying for lack of protection from the virus. It will take more than medicine to heal the wounds inflicted by the malicious indifference of the death cult leaders who sit in the White House and the Senate, and their enablers in the federal health agencies.

In contrast to the shambolic political response to the pandemic, Trotter's book provides an unexpected but sorely needed spotlight on the hidden labor of nurses. Through her focus on the care that nurse practitioners deliver for the members at The Grove, Trotter illuminates the ingenuity and grinding hard work it takes to improve the quality of life and preserve the dignity of so many people considered dispensable by American political leaders. Trotter's work demonstrates the Sisyphean task required of nursing professionals: to provide patients and the whole of society with more than just medicine. They must try to fix an entire system that has turned against the very people they are trying to keep alive; to give them a semblance of dignity and comfort, and perhaps even some joy in their last days.

Our health care system makes both patients and health care workers poorer and sicker. During her fifteen minutes of fame, the meme-worthy nurse Jillian Primiano sharpened her point to American voters in an interview with *Teen Vogue*, urging support for universal access to Medicare, the federal health insurance program: "Don't tell me 'thank you' and then, you know, support a system where the rich get richer and the poor die." It is up to the rest of us to do the care work for one another at the polls in November 2020. ■