

MARXIST

Theoretical Quarterly of the Communist Party of India (Marxist)

XXXVI, 2

April-June 2020

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CONTRIBUTORS

PRABIR PURKAYASTHA is the Founder Member, Delhi Science Forum, and President, Free Software Movement of India.

C.P. CHANDRASEKHAR is Professor at the Centre for Economic Studies and Planning, School of Social Sciences, Jawaharlal Nehru University, Delhi.

For subscription and other queries, contact

The Manager, Marxist, A.K. Gopalan Bhavan, 27-29 Bhai Veer Singh Marg, New Delhi 110001
Phone: (91-11) 2334 8725. Email: pdpbln@gmail.com

Printed by Sitaram Yechury at

Progressive Printers, A 21, Jhilmil Industrial Area, Shahdara, Delhi 110095,
and published by him on behalf of the Communist Party of India (Marxist) from
A.K.Gopalan Bhavan, 27-29 Bhai Veer Singh Marg, New Delhi 110001

PRABIR PURKAYASTHA

Covid-19 Pandemic and the Pathologies of Late Capitalism

The Covid-19 pandemic has caught most countries unprepared. It is not just the poor, less economically developed countries that have also been badly hit. The economically advanced countries—the US and the core European Union countries—have also been equally, if not worse hit. Ironically, while a Global Health Security Index¹ declared US as a country which would withstand the pandemic the best, it has on the contrary witnessed the largest number of infected and dead due to coronavirus. The same Index had also ranked the UK and the EU, among the best prepared, while China ranked 51, well below that of the US, the UK and the EU countries. And yet, it stopped the epidemic, though it was the first country to encounter the novel coronavirus—or SARS-CoV-2—showing the world how to fight the Covid-19 epidemic!

Initially, the response in the West, slavishly copied by most of the global media, was to brand the Chinese methods of epidemic control as completely ‘undemocratic’ and ‘authoritarian’. Faced with the sweep of the disease, most of them followed the Chinese path of lockdowns, contact tracing and quarantining those mildly infected. Those who did not, like Brazil and a number of US states, are facing the consequences. India occupies a special place in how-not-to-handle-the-epidemic. In spite of one of the most draconian

¹ Global Health Security Index 2019, prepared by the Nuclear Threat Initiative (NTI) and the Johns Hopkins Center for Health Security (<https://www.ghsindex.org/>).

lockdowns, figures have risen and continue to rise, placing it among the worst hit in the world.

A number of questions have arisen as we see the progression of the pandemic. Why is it that such a pandemic was not foreseen, when warning signs with avian flu, swine flu, SARS and MERS, all within the last two decades, were clear? Why are infectious diseases that still plague four billion people not on the agenda of the drug industry and major research institutions? Why is it, that with such advances in medicine, vaccines and healthcare, infections have spread so rapidly and the health systems collapsed?

Some countries have done particularly badly, and some have done well. For example, the highest number of infections and deaths are in the US, Brazil, Russia and India. Three out of these four have right-wing governments, with a macho figure—Trump in the US, Bolsonaro in Brazil and Modi in India—as *the centre* of power in the government. Why have these authoritarian leaders failed so badly? Why is it, that unlike other countries that have also been hit hard but finally controlled the epidemic, these countries show no sign of being able to control the pandemic?

This combination of hubris of neocolonialism, sectarian nationalism, to the ‘strong man’ of politics myth—all of them have collapsed facing the Covid-19 pandemic. These forces can pit people against people, use hate to turn people from the real issues of their lives; but faced with a pandemic that requires people to work together, a collaborative world and sharing of knowledge and resources, capitalism has no answer. This is the pathology of late capitalism.

INFECTIOUS DISEASE: ITS JOURNEY
FROM GENOCIDE TO FORGOTTEN DISEASES

Late capitalism is only the terminal phase of the system of capitalism itself. This system emerged from the so-called age of exploration. A handful of countries in Western Europe ‘discovered’

the New World in search of spices, silver and gold. They created empires in Africa, Americas and Asia, based on loot, genocide, and slavery. This was followed by trading or mercantile empires of the English, French and the Dutch, who combined their trade in goods with loot and slave trade. Marx calls this phase of capital as one of primitive accumulation and capital emerging, ‘. . . dripping from head to foot, from every pore, with blood and dirt.’²

In Asia, west European mercantile capital found that the productive capacities of these countries could be better used to supply manufactured goods—cotton textiles and silk—to the West. This is how the English and the Dutch acquired colonies through their East India companies. In India, the East India Company used its land revenues from the territories it had seized to finance its imports from India to Europe. For China, opium was used to finance its Chinese trade. China was enslaved by forcing the weak Chinese Empire to allow opium to be sold in China, an opium that was produced in India and sold by the British freebooters.³ Of course the opium trade⁴ to China is the genesis of early Indian big capital⁵ as well.

While genocide, slavery and loot have been well documented, diseases too were a significant part of this genocide. It wasn’t simply weaponizing small pox⁶ or using slaves as carriers of vaccine in

² Karl Marx, *Capital*, vol. 1, ch. 31: ‘Genesis of the Industrial Capitalist’ (<https://www.marxists.org/archive/marx/works/1867-c1/ch31.htm#14a>).

³ William Jardine and James Matheson, two opium traders, founded Jardine Matheson Holdings. Their opium trade was funded by the Hong Kong Shanghai Banking Corporation, now known as HSBC.

⁴ A. Farooqui, *Opium City: The Making of Early Victorian Bombay*, Delhi: Three Essays Collective, 2006.

⁵ A. Calangutcar, ‘Marwaris in Opium Trade: A Journey to Bombay in the 19th Century’, *Proceedings of the Indian History Congress*, vol. 67, 2006, pp. 745–53.

⁶ Jeffery Amherst, the Commander of the British forces in the Americas, had written, ‘You will do well to try to inoculate the Indians by means of blankets, as well as to try every other method that can serve to extirpate this execrable race.’ Amherst College, a leading educational institution in the US

their bodies, but also uprooting the indigenous population from their food sources and confining them to small 'reservations' that explains the fall of the population of the indigenous people⁷ in the Americas.

The transformation of West's mercantile capitals, with the violent primitive accumulation of capital created the metropolitan core of global capital with a vast 'periphery' of colonies. The transformation of mercantile capital to industrial and finance capital, and the use of colonies as a market and their de-industrialization, was subsequent to this brutal primitive accumulation phase. The myth of the West⁸ as civilized and with a civilizing mission, was ideologically constructed to hide the ugliness of its reality.

This transformation of capital also mirrored how the diseases were viewed. Infectious diseases was perceived as belonging to the pre-history of the West. It was now confined to colonies (or ex-colonies), with dirty natives and their diseases. The genocidal violence, recurring famines, destruction of the social structure, and peoples' habitat, were all airbrushed out of this history of capitalism.

The great successes of science and technology in fighting disease was initially not from medicines, vaccines, and clean hospitals, but providing clean drinking water, effective sewage systems and rising incomes. After these investments in the 19th and 20th century, the West rapidly improved its life expectancy and lowered its death rate. Simultaneously, repeated famines, destruction of their societies and the lack of similar investments in public health, saw proliferation of epidemics and plummeting

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is named after him.

⁷ J. Ostler, *Surviving Genocide: Native Nations and the United States from the American Revolution to Bleeding Kansas*, New Haven, London: Yale University Press, 2019.

⁸ Globally, 'West' does not map to a common geographical direction, 'west' and 'east' are purely relative and depends on where you are on the globe.

of life expectancy in colonies like India. Professor Utsa Patnaik has estimated⁹ that Great Britain ‘transferred the equivalent of \$45 trillion and British caused the death of 1.8 billion people through avoidable deprivation.’ Before Independence, Indians had a life expectancy of 27 years, less than half that of Great Britain’s.

Sanitation, clean drinking water, antibiotics and modern vaccines changed the way we look at infectious diseases. About a quarter of all children died in the first year of infancy, and about half before reaching adulthood.¹⁰ This has fallen to less than 2 per cent and 5 per cent today. The West believed that it had permanently won the battle against infectious diseases.

Fauci¹¹ notes that in the 1960s, the US believed antibiotics and vaccines had won them victory against the threat of infectious diseases and it was now confined to poorer parts of the world. This belief in ‘victory’ over infectious diseases explains the collective amnesia in the West about a host of diseases that still plague the world—diseases that Peter Hotez, a molecular biologist, wrote about in his book *Forgotten People, Forgotten Diseases*.¹²

Who has forgotten such diseases? Certainly not the people who are threatened by tuberculosis, malaria, dengue, yellow fever, and the other ‘forgotten’ diseases Hotez lists that threaten more than 60 per cent of the world’s population. They were ‘forgotten’ by the West, who believed that they could keep such diseases outside their borders.

⁹ S. Chakrabarti and U. Patnaik, eds., *Agrarian and other Histories: Essays for Binay Bhushan Chaudhuri*, New Delhi: Tulika Books, 2017.

¹⁰ Max Roser, ‘Mortality in the past—around half died as children’, June 11, 2019 (<https://ourworldindata.org/child-mortality-in-the-past>).

¹¹ Anthony S. Fauci, ‘Infectious Diseases: Considerations for the 21st Century’, *Clinical Infectious Diseases*, vol. 32, no. 5 (March 1, 2001) (<https://academic.oup.com/cid/article/32/5/675/357623>).

¹² C. Ben Beard, ‘Forgotten People, Forgotten Diseases: The Neglected Tropical Diseases and Their Impact on Global Health and Development’, *Emerging Infectious Diseases*, vol. 15, no. 3 (2009), pp. 510–11 (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2681134/>).

The other mistake was to believe that microbes do not evolve and our defences against them will hold for a long time. But disease has a way of striking back. The AIDS epidemic provided the first breach, followed by emergence of new viruses and antibiotic-resistant bacteria. SARS-CoV-2 and the Covid-19 pandemic proved that we are only one mutation away from a new infectious disease emerging.

EMERGING INFECTIOUS DISEASES:
NO RESPECT FOR BORDERS

Sixty per cent¹³ of all infectious diseases and three-fourths of emerging infectious diseases are zoonotic or are crossover from animals into humans. While the West has been aware of the danger of a new epidemic from such crossovers, it still regards infectious diseases as a danger coming from outside. With their colonial mindset, they believed that as long as people with such diseases can be kept out of their borders, they are safe. Remember Trump's rhetoric about the Wall? At best, they need a government body working on infectious diseases like the Centre for Disease Control and Prevention (CDC) which would help to stop the infections at source—in their mind in Africa or in Asia—and safeguard their homeland. But unfortunately for them, microbes do not share their worldview about national borders.

The other element in the campaign, to establish the Chinese origins of the Covid-19 pandemic, has been the recurring theme of 'wet markets'. Live animals slaughtered in Chinese, South and Southeast Asian wet markets, and Africa's bushmeat are blamed for periodically letting loose new epidemics on the world. It is a continuation of the Western narrative of the unwashed and uncivilized East, bringing in epidemics.

While the use of the term wet market makes it appear esoteric

¹³ 'Zoonoses', series from *The Lancet*, published in November 30, 2012 (<https://www.thelancet.com/series/zoonoses>).

and uniquely Chinese, it describes every market in the world where live animals, or fresh meat, or fish are sold. Even the farmers' markets, now becoming popular in the West, are wet markets. Only super markets are sanitized and non-wet, even though they are now starting small sections catering to fresh meats and fish demands. As we know from the Covid-19 pandemic, banishing the handling of meat to meat processing factory systems only transfers the source of infections to the meat processing plants, which become the new centres of infections.¹⁴

This neocolonial view of infectious diseases that are restricted to primitive wet markets, fails to understand the intersection between human, domesticated animals, and wild animals. Domesticated animals—chickens, ducks, pigs, cattle, horses—and animals in the wild, will infect each other. Since we live in close proximity with domestic animals, in factory farms, meat processing factories, or in wet markets, such infections have the potential of crossing over to us. Wet markets for wild animals or African bushmeat—the intersection of wild animals with us humans—is not the main transmission path between animals and humans. It is the wild animal to domestic, then domestic to human transmission that is the key pathway for emerging infectious diseases.

Bats and rodents interact with a number of domestic animals and the virus or bacteria they carry can potentially jump to domestic animals. And vice versa. Most of them will not lead to an outbreak among humans, but a few of them also have the potential of jumping to us humans. A specific virus or a bacteria has multiple hosts, and cannot be eradicated by only eradicating it in the human, or even in the domesticated animals through vaccination. It will still retain hosts in the wild. It is not surprising that the only virus we have successfully eradicated is smallpox. It had a single host: humans. All others, such as rabies, measles,

¹⁴ Nina Lakhani, 'US coronavirus hotspots linked to meat processing plants', *The Guardian*, May 15, 2020 (<https://www.theguardian.com/world/2020/may/15/us-coronavirus-meat-packing-plants-food>).

polio, etc., have multiple wild hosts. Similarly, even if we and our poultry are free from a particular flu virus, as long as migratory birds exist and carry different forms of bird flu, they will infect domesticated chickens and ducks.

COVID-19 PANDEMIC AND THE SARS-COV-2 VIRUS

That a major new infectious disease would emerge in the near future has been the forecast by a number of experts. For many, a novel virus with pandemic potential was thought of as a new, virulent flu strain. After all, the most deadly epidemic in the last hundred years has been the influenza epidemic. Though it was called Spanish flu, it started in Kansas,¹⁵ and came into Europe through infected American soldiers, and spread from the soldiers in the trenches to the general population. It came into India from the British Indian Army soldiers returned from the War.

The swine flu epidemic which started from North American pig farms was estimated by CDC to have infected 1.6 million and killed 284,000 people worldwide.¹⁶

The flu virus has two specificities: it mutates quickly and has a large animal reservoir including in the wild. The danger from the flu virus is that certain strains of avian flu (H5N1) have a mortality rate in humans of nearly 60 per cent. Fortunately, the human to human transmission of this particular strain is still very low, and therefore its spread has been confined to birds including domestic ones. But a mutation may make for an easy human to human transmission leading to a potential pandemic on par with the one in 1918.

¹⁵ J.M. Barry, 'The site of origin of the 1918 influenza pandemic and its public health implications,' *Journal of Translational Medicine*, vol. 2, no. 1 (2004), p. 3 (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC340389/>).

¹⁶ R. Roos, 'CDC estimate of global H1N1 pandemic deaths: 284,000,' Center for Infectious Disease Research and Policy (CIDRAP), June 12, 2012 (<https://www.cidrap.umn.edu/news-perspective/2012/06/cdc-estimate-global-h1n1-pandemic-deaths-284000>).

SARS-CoV-2, the virus that causes the Covid-19 disease, belongs to a family of viruses called coronaviruses. While coronaviruses have been with us for long—four of them cause common cold—the emergence of dangerous coronaviruses is only recent. Severe Acute Respiratory Syndrome (SARS) appeared in 2003 and Middle East Respiratory Syndrome (MERS) in 2012, both of which are coronaviruses. They have high case fatality rates: in SARS, the case fatality rate (people dead out of total infected) was about 11 per cent,¹⁷ while in MERS, it was 35 per cent,¹⁸ but fortunately, they have low human to human transmission. Though the figures of case fatality rates are difficult to estimate during an epidemic, the current figure for Covid-19 estimated by WHO is between 3–4 per cent.¹⁹

The most common reservoir for coronaviruses is bats, and from bats to other mammals including cats, camels, rodents, and pangolins. A number of other viruses have also jumped from bats to us such as Ebola, rabies, encephalitis, Chikungunya, Zika, and Nipah. The other animal group that has also been a major reservoir of diseases that have jumped to humans are rats. We remember rats for their role in the plague, though plague was a bacteria and not a virus. But rats are also hosts to a number of viruses that cross over to human populations.

Genomic studies²⁰ have identified that the specific bat virus

¹⁷ 'Consensus document on the epidemiology of severe acute respiratory syndrome (SARS)', World Health Organization, 2003 (<https://www.who.int/csr/sars/en/WHOconsensus.pdf>).

¹⁸ 'Middle East respiratory syndrome coronavirus (MERS-CoV)', World Health Organization, March 11, 2019 ([https://www.who.int/en/news-room/fact-sheets/detail/middle-east-respiratory-syndrome-coronavirus-\(mers-cov\)](https://www.who.int/en/news-room/fact-sheets/detail/middle-east-respiratory-syndrome-coronavirus-(mers-cov))).

¹⁹ 'Coronavirus disease 2019 (COVID-19). Situation Report-46', World Health Organization, March 6, 2020(https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200306-sitrep-46-covid-19.pdf?sfvrsn=96b04adf_4).

²⁰ M.F. Boni, P. Lemey, X. Jiang, Tommy Tsan-Yuk Lam, B. Perry, T. Castoe, A. Rambaut, and D.L. Robertson, 'Evolutionary origins of the sars-cov-2

closest to SARS-CoV-2 had probably separated from it about 40 years ago. It passed through an unknown intermediate host before it entered the human population. It might have been circulating within either of the populations²¹—human or the intermediate host—with a few infections here and there, before the final mutation that made it far more infectious to emerge. Nextstrain, the group that deals with genomic studies, have shown that all the samples of the SARS-CoV-2 genome originate from a common ancestor²² dating around end-November to beginning-December 2019. While there has been an attempt to talk about Wuhan virus being a biological weapon, or that it was circulating in China for months but hushed up by the Chinese is contrary to all the scientific evidence we have.

SARS-CoV-2 is dangerous as it is transmitted easily from one person to another. People over the age of 65 who are likely to have other co-morbidities such as diabetics, heart disease, and high blood pressure, are at a greater risk of falling seriously ill. A significant number of those infected remain asymptomatic. In 80 per cent of the cases which proceed to show symptoms, it manifests itself as a mild throat irritation and a dry cough, but in 20 per cent of cases, the infection travels to the lungs, triggering pneumonia needing oxygen support, and in a certain number of cases, even ventilator support. For older people, it can also be accompanied by secondary bacterial infections. This happens in flu epidemics every year, and most pneumonia deaths that take place are from such co-infections from flu virus and bacteria.

What makes Covid-19 particularly dangerous is that it can

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 sarbecovirus lineage responsible for the covid-19 pandemic', 2020 (<https://www.biorxiv.org/content/10.1101/2020.03.30.015008v1.full.pdf>).

²¹ K.G. Andersen, A. Rambaut, W.I. Lipkin et al., 'The proximal origin of SARS-CoV-2', *Nat Med*, vol. 26, 2020, pp. 450–52 (<https://doi.org/10.1038/s41591-020-0820-9>).

²² Genomic epidemiology of novel coronavirus - Global subsampling (genomes sampled between December 2019 and July 2020), *Nextstrain GISAID* (<https://nextstrain.org/ncov/global?c=region&l=clock>).

cause our immune system to over react and go berserk.²³ It not only attacks the infected cells but also the healthy cells, creating what is called a cytokine storm,²⁴ damaging the lungs even further. It was the cytokine storm that was triggered by the 1918 flu epidemic which caused its high mortality. Further, the SARS-CoV-2 can also attack other vital organs,²⁵ causing multiple failures.

While modern medicine, particularly broad spectrum antibiotics can cure people of most bacterial infections, for virus infections, medicines have been less effective and are effective only if taken early. Once the patient becomes seriously ill, the only recourse is to provide oxygen support, reduce inflammation of the lungs using either dexamethasone or other anti-inflammatory medicines, and provide supportive therapy. It requires proper intensive or critical care facilities with oxygen support, equipment including ventilators and trained critical care staff. As it is highly infectious, it is also important to have proper protective gear and protocols for the hospital staff.

As we understand the disease better, the fatality rates have come down, but the fatalities will rise if the hospitals and critical care facilities are overwhelmed by sheer numbers; or the staff themselves fall ill and are therefore not available.

The first line of defence against viral infections is vaccines, but with novel viruses, development of vaccines can take place only after we have seen its emergence. All we have in the initial phase is the body's immune system that works against any infection, but

²³ R.J. Jose and A. Manuel, 'Covid-19 cytokine storm: The interplay between inflammation and coagulation', *The Lancet Respiratory Medicine*, vol. 8, no. 6 (2020), e46–e47 ([https://www.thelancet.com/journals/lanres/article/PIIS2213-2600\(20\)30216-2/fulltext](https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(20)30216-2/fulltext)).

²⁴ Q. Ye, B. Wang, J. Mao, "The pathogenesis and treatment of the "Cytokine Storm" in COVID-19", *Journal of Infection*, vol. 80, no. 6 (2020), pp. 607–13 ([https://www.journalofinfection.com/article/S0163-4453\(20\)30165-1/pdf](https://www.journalofinfection.com/article/S0163-4453(20)30165-1/pdf)).

²⁵ M. Wadman, J.C. Frankel, J. Kaiser, and C. Maticic, 'A Rampage Through the Body', *Science*, vol. 368, no. 6489 (2020), pp. 356–60 (<https://science.sciencemag.org/content/368/6489/356.summary>).

it can be overwhelmed by high viral loads or a weakened immune system in the person, as in the case of older people.

A number of vaccine candidates are in Phase 1 & 2 trials—according to WHO's page on vaccine trials 24 are in clinical trials—out of which five are entering Phase 3. All of the five show positive developments in terms of immune response but we will know of their effectiveness only after Phase 3 trials are near completion. This will be the fastest development of a vaccine ever, as all other vaccines have taken more than 5–10 years, from development to full clinical trials.

This means vaccines for the general population might start being available from early next year. And reaching herd immunity, where a population is protected as a significant majority has immunity can only come from vaccines and not large-scale infection as Boris Johnson had earlier planned and Sweden and Brazil are executing.

While a vaccine development takes time, it is not that we do not have any medicines to treat even novel viruses. We can repurpose existing drugs to test if they can combat SAR-CoV-2 infections. Several anti-virals have been tested for this purpose and a few of them such as remdesivir, interferons, etc., partially work in the initial phase of the infection. We have another set of medicines that are being repurposed for their anti-inflammatory action during the more severe phase. The one which has shown significant benefits in reducing deaths in a rigorous, randomized control clinical trial is dexamethasone, a cheap and off-patent steroid. The others that are being tested include monoclonal antibodies like tocilizumab and itolizumab, both of which relieve inflammation and seem to show benefits.

Hydroxychloroquine, a favourite of Trump and the Indian Council of Medical Research (ICMR), has failed to show any significant results in randomized clinical trials. WHO has discontinued its arm of the Solidarity Trials using hydroxychloroquine. ICMR has claimed benefits for its use as a

prophylactic, but most medical researchers remain sceptical of such claims.

PANDEMIC AND THE COLLAPSE
OF PUBLIC HEALTH SYSTEMS

China had identified that it was facing a completely new pathogen by December 31, 2019, identified its genome sequence on the 5th of January and had shared it with the world by uploading the virus sequence by January 11. They had also created the diagnostic kit using the viral genome sequence and produced enough numbers to start testing in Wuhan. By 15th January, their central team in CDC China realized the gravity of the situation in Wuhan, sent down a team there and by 23rd January, completely locked Wuhan down with its 11 million population, followed by the entire province of Hubei with nearly 60 million people. Hubei's population is nearly the same as Italy, and larger than Spain. At that time, Wuhan had only 400 known cases of the novel coronavirus.

Commenting on the speed²⁶ of China's identification of the virus, Dr Kristian Andersen, the director of Infectious Disease Genomics at Scripps Research Transnational Institute in California said, 'In scientific terms, this is lightning speed.' He continued, 'We have to remember that all of this happened during flu season, so a lot of people would have had symptoms that looked like Covid-19. But because of flu, discovering a novel coronavirus this fast against that backdrop is simply unprecedented.' Andersen also pointed out, 'The Zika circulated in Brazil for a year and a half before anyone realized they had an epidemic and Ebola took three months to diagnose. Importantly, these are known pathogens and not a novel pathogen like SARS-CoV-2.'

All those who complain of China not controlling the disease

²⁶ J. Goodell, 'The President and the Plague', *Rolling Stone*, April 12, 2020 (<https://www.rollingstone.com/politics/politics-features/trump-president-coronavirus-plague-982150/>).

and therefore having much to answer for, do not understand the speed with which China acted. Their not understanding is either, as Upton Sinclair said, because their salary depends on not understanding it, or simple ignorance.

Even after the numbers rose rapidly in China, there was a smug complacency in the West—core European Union countries and the United States—that their health and medical systems would take this epidemic in its stride. The Chinese were after all considered backward, and their government as authoritarian. Lockdowns were undemocratic and epidemics could be contained easily with proper scientific and administrative methods. Their medical systems were meant to be stronger than the Chinese, which would be able to withstand Covid-19.

The French historian Marc Bloch, while talking about France's surrender to Germany in the Second World War in six weeks after the German panzers broke through the Maginot Line, wrote *The Strange Defeat*, as he said himself, in 'a white heat of rage'. Robert Zaretsky, a historian, in *Foreign Affairs*,²⁷ the voice of the US foreign policy establishment, notes, 'Eighty years later, Bloch's investigation casts useful light for those historians who, gripped by the white heat of their own moment, may seek to understand the once unthinkable defeat of the United States in its "war" against the new coronavirus.'

But it was not simply the defeat of the United States alone, but also of the ex-colonial powers. We can understand the failure of the Trump administration with Trump himself deriding it as a 'little flu that will magically disappear'; or a Boris Johnson believing in herd immunity, before falling sick himself and finding he was also a part of the same herd; a Bolsonaro who was a firm believer of Trump's superpowers. But how is it that Italy, France, Spain and

²⁷ R. Zaretsky, 'The Strange Defeat of the United States: A French Historian's Message for Pandemic Times', *Foreign Affairs*, July 20, 2020 (<https://www.foreignaffairs.com/articles/united-states/2020-07-20/strange-defeat-united-states>).

even Germany, who were not the epidemic deniers that the others were, could not control the epidemic from ripping through their countries?

It is not that all countries failed. China stopped the total infections at 82,000 (it has risen a little after March but only by another 1,700). The US figure of four million plus, Brazil two million plus, India a million plus, shows the enormity of what China has achieved. But even small socialist countries such as Vietnam, Cambodia, Cuba and North Korea have performed much better.²⁸ Vietnam shares a long border with China, and yet has not lost a single life due to the Covid-19 epidemic. Even Malaysia, Thailand, South Korea and Sri Lanka did what the advanced European countries with their strong medical systems could not do.

Kerala has shown that a determined government,²⁹ even when hamstrung by the Centre, can mobilize its machinery and work with the people³⁰ to test, track and treat the patients. Com. Pinarayi Vijayan, the chief minister, and Shailaja Teacher, the health minister drew high praise³¹ for the way the state handled the initial influx from abroad and, later, other states. Kerala was one state that not only provided food and support for workers from other states but also ensured that children, who received midday meals in schools, did not suffer due to their closure and

²⁸ 'CoronaShock and Socialism,' *Tricontinental*, July 8, 2020 (<https://www.tricontinental.org/studies-3-coronashock-and-socialism/>).

²⁹ S. Khalid, 'Q&A: How communist-run India state became model in COVID-19 fight: Kerala Chief Minister Pinarayi Vijayan speaks to Al Jazeera on how the state turned the tide against coronavirus,' *Al Jazeera*, May 22, 2020 (<https://www.aljazeera.com/news/2020/05/qa-communist-run-india-state-model-covid-19-fight-200521112100510.html>).

³⁰ O.C. Kurian, 'How the Indian state of Kerala flattened the coronavirus curve,' *The Guardian*, April 21, 2020 (<https://www.theguardian.com/commentisfree/2020/apr/21/kerala-indian-state-flattened-coronavirus-curve>).

³¹ 'Watch | UN honours Kerala Health Minister K.K Shailaja,' *The Hindu*, June 28, 2020 (<https://www.thehindu.com/news/national/kerala/watch-un-honours-kerala-health-minister-kk-shailaja/article31937535.ece>).

food was reached to their respective homes. The key for the state was that it has a well functioning panchayat system in which funds are received from the state government, and a set of volunteers that have worked in the past during floods. The monitoring system that had been built during the Nipah virus outbreak was also very useful to create quickly the required support structure with local administration's and people's support.

What has surprised most observers is the collapse of the health systems in the advanced capitalist countries. Just before the end of January, *Forbes* magazine used the Global Health Security Index³² to rank countries 'best and worst prepared'³³ to handle the epidemic. The two countries on top were the United States and the United Kingdom. Today, the United States has the highest number of infections and deaths in the world while the United Kingdom has already registered the highest number of deaths in Europe. Almost all the countries that *Forbes* had ranked as best-prepared—the United States and the core European Union countries—turned out to have done much worse than countries with lower rank in the health security index!

One of the reasons that Western Europe and UK failed, was that they did not really believe what WHO and China were telling them. The hubris of being the global leaders³⁴ for a few hundred years far outstripped their capabilities. Having advised the whole world on how to manage their economies, politics and health systems, and not having faced a serious epidemic after 1918, they

³² 2019 Global Health Security Index, Global Health Security Index website (<https://www.ghsindex.org/>).

³³ N. McCarthy, 'The Countries Best And Worst Prepared For An Epidemic [Infographic]', *Forbes*, Jan 27, 2020 (<https://www.forbes.com/sites/niallmccarthy/2020/01/27/the-countries-best-and-worst-prepared-for-an-epidemic-infographic/#35440d1b5799>).

³⁴ A. Karan and M. Khan, 'The Ghosts Of Colonialism Are Haunting The World's Response To The Pandemic', NPR, May 29, 2020 (<https://www.npr.org/sections/goatsandsoda/2020/05/29/862602058/opinion-the-ghosts-of-colonialism-are-haunting-the-worlds-response-to-the-pandem>).

had no idea of the challenge that a new infectious disease and an epidemic could pose. They were slow to react, the epidemic control measures did not exist in their countries, and the people were unwilling to give up their ‘freedoms’ of going to parties, pubs, and football games, which acted as super spreader events.

The Covid-19 pandemic has also laid bare the crisis of capitalism and why health systems failed in the advanced capitalist countries. Ill health provides profits;³⁵ while a healthy population does not. Money is made out of disease³⁶ when people buy pills or visit hospitals. Public health was important as long as infectious diseases were perceived to be a threat. As they were ‘forgotten’, so did the importance of public health in the rich countries.

In the case of hospitals, what drove the system was either private profit for private hospitals or the same capitalist criteria introduced as ‘efficiency’ in public hospitals. The capitalist principle of maximizing efficiency was to maximize bed occupancy and reduce empty beds, a twisted form of ‘just-in-time manufacturing’ introduced by capital to reduce inventories and therefore costs. Reducing beds, equipment and medical staff is, in capital’s terms, ‘rationalizing’ production and increasing ‘efficiency’.³⁷

When the Covid-19 epidemic hit advanced capitalist countries, particularly in the flu season when patient loads are already peaking, they ran into a shortage of intensive-care beds, equipment, doctors, and nurses. The other problem was the collapse of global supply chains for personal protective equipment

³⁵ W. Caswell, ‘Profit as a Disease, and Now an Epidemic’, Modern Health Talk, April 28, 2018 (<https://www.mhealthtalk.com/profit/>).

³⁶ T. Kim, ‘Goldman Sachs asks in biotech research report: “Is curing patients a sustainable business model?”’ CNBC, April 11, 2018 (<https://www.cnbc.com/2018/04/11/goldman-asks-is-curing-patients-a-sustainable-business-model.html>).

³⁷ A. Gaffney, ‘America’s extreme neoliberal healthcare system is putting the country at risk’, *The Guardian*, March 21, 2020 (<https://www.theguardian.com/commentisfree/2020/mar/21/medicare-for-all-coronavirus-covid-19-single-payer>).

(PPEs) and medicines, all of which under the slogan of capitalist efficiency that had built ‘just-in-time’ manufacturing, global supply chains, and held low inventories. As a result, the hospital staff became infected and their spaces functioned as the new hot spots of infections.

The advanced capitalist countries may have been prepared to handle the load of normal annual flu cases, but they were completely unprepared for a novel infectious disease. While East and Southeast Asia adopted the mask, particularly after their brush with SARS³⁸ now and SARS-CoV-1 in 2003 and the dangerous H5N1 version of avian flu,³⁹ the advanced countries did not have any such experiences. In the less affluent countries, there is a collective memory of infectious diseases—plague, cholera, small pox, polio—and the necessary public health measures that are needed during such epidemics. There are even some surveillance and monitoring systems in these countries, no matter how weak, that are meant to address such issues.

In the United States, the threat of a new infectious disease is not even a part of the collective psyche of the people. That is why, with a lockdown imminent, guns and ammunition⁴⁰ were in as high demand as medicines and food. The threat was clearly other people and not a virus or germs. The US is probably one of the few countries in the world where science is believed to be a scam⁴¹ and vaccines a plot to rob people of their freedom.⁴²

³⁸ ‘Severe Acute Respiratory Syndrome (SARS)’, World Health Organization website (<https://www.who.int/csr/sars/en/>).

³⁹ ‘FAQs: H5N1 influenza’, World Health Organization website (https://www.who.int/influenza/human_animal_interface/avian_influenza/h5n1_research/faqs/en/).

⁴⁰ S. Gandel, ‘Guns and ammo sales spike in U.S. on coronavirus worries’, CBS News, March 17, 2020 (<https://www.cbsnews.com/news/guns-ammunition-sales-coronavirus-concerns/>).

⁴¹ S.L. Otto, ‘Antiscience Beliefs Jeopardize U.S. Democracy’, *Scientific American*, November 1, 2012 (<https://www.scientificamerican.com/article/antiscience-beliefs-jeopardize-us-democracy/>).

⁴² ‘Anti-vaxxers have found a new way to make people unsafe’, *Los Angeles*

MODI'S INDIA: PAIN OF A DRACONIAN LOCKDOWN
BUT A TOTAL FAILURE IN EPIDEMIC CONTROL

Modi and the BJP share a number of political commonalities with Trump and Bolsonaro. All three of them have sectarian 'nationalism' as their base. While Trump and Bolsonaro believe in White nationalism combined with appealing to the Christian Right, Modi and the BJP have built their foundation on the slogan of India being a Hindu nation. But while the other two denied the reality of the Covid-19 epidemic, the Modi government did believe in the threat and the need to take immediate steps to prevent it. It declared an early lockdown, and followed it up with measures that were, on paper, one of the most draconian lockdowns in the world.

The results show that the Modi government's lockdown was a miserable failure. Three of India's major public health organizations—the Indian Public Health Association (IPHA), the Indian Association of Preventive and Social Medicine (IAPSM) and the Indian Association of Epidemiologists (IAE), in a statement⁴³ said, 'India's nationwide "lockdown" from March 25, 2020 till May 31, 2020 has been one of the most stringent; and yet COVID cases have increased exponentially through this phase, from 606 cases on March 25 to 138,845 on May 24.' They attributed this failure to a lack of preparation, incoherent and often rapidly shifting strategies and policies, especially at the national level.

The draconian lockdown which effectively meant near curfew like conditions was implemented without any planning

Times, Editorial, May 7, 2020 (<https://www.latimes.com/opinion/story/2020-05-07/editorial-anti-vaxxers-have-found-a-new-way-to-make-people-unsafe>).

⁴³ Indian Public Health Association (IPHA), Indian Association of Preventive and Social Medicine (IAPSM) & Indian Association of Epidemiologists, *2nd Joint Statement on CoVID-19 Pandemic in India—Public Health Approach for COVID19 Control*, May 25, 2020 (https://www.iphaonline.org/wp-content/uploads/2020/05/Second-Joint-Statement-of-IPHA-IAPSM-and-IAE-on-COVID-19-containment-plan-May-25-2020_Shorter-version-final.pdf).

or preparation. Not even the state governments were informed and the entire country was given only a four-hour notice before shutting the country down. It was entirely a bureaucratic, top-down approach with no attempt to involve any other tier of the government. The state governments had very little leeway as the central government had assumed emergency powers under the Disaster Management Act 2005 that centralizes all powers with the Union government during a disaster.

At the ground level, it was a completely police operation, with no attempts to involve the people. Curfew and Section 144 of the Criminal Procedure Code (CrPC) were routinely used as instruments of the lockdown. Even food, which should have been a priority, was not notified initially as an essential service. The notifications had to be hastily amended to bring in Civil Supplies as an essential service.

The Modi government believes the stock market is the economy; the people that matter are only those in the capitalist class. The rest are to be given propaganda as truth, and hate as politics. The poor matter only before the elections; otherwise they are to only clap for Modi and have no other role. Therefore, it made no attempt to even think of how the people who depend on daily wages would survive the lockdown. With no jobs, no money and no food, we witnessed how a section of the population known to be migrant workers, were in reality the bulk of our workforce in the cities, who retained their village roots, and tried to return home. It was a completely callous government which had money to give to the capitalist class but very little to spare for the poor. Even with bulging stocks of foodgrains, the food released to the poor was completely insufficient. Neither was any thought spared for how the entire supply chain would work and how the food would reach the people during lockdown.

The breakdown of the lockdown due to workers returning to their villages led to the spread of the epidemic from urban centres like Delhi, Mumbai, Ahmedabad and Chennai to other towns

and villages. After years of neoliberal policies in the health sector, weakening the hospital systems and government health centres in favour of private systems, large parts of the country lacked an effective disease monitoring and surveillance mechanism that was required to identify hot spots and react quickly with prompt action that Kerala had shown: test, track and treat patients. Neither did they have the capacity to treat patients, leaving them at the mercy of private health systems that extort money out of illnesses.

The testing protocols set up by ICMR even today restrict Covid-19 tests to only those who have had prior contact with known infected cases and are showing symptoms. In most states, testing figures are far below what is required to control the epidemic. With the second highest number of daily cases in the world, we are obviously in the community phase of transmission that the Modi government and Indian Council of Medical Research still refuse to accept. India has been in this transmission phase for quite some time in cities like Mumbai, Delhi, Ahmedabad, Chennai and others.

The lockdown gave the government time to build the necessary capacity in our healthcare system to deal with the epidemic. It should have enabled us to strengthen the testing capacity of the country, and create the additional infrastructure required to handle a very large number of Covid patients. Unfortunately, the Modi government failed signally on this count. It spent the crucial month of February preparing for Trump's visit and his public event in Motera Stadium and most of March and in polarizing the country on communal lines using the CAA-NPR-NRC issue. The Delhi riots were a consequence of this hateful, divisive campaign carried out at the highest levels of the government.

The central government should have created capacity for producing enough test equipments and test kits, oxygen support systems including ventilators, and ensured strengthening of the health infrastructure at the top of its Atmanirbhar Bharat list. Identifying manufacturers, helping them procure equipment and

materials so that they can ramp up their production; instead of coining new phrases or *jumlas* every week and launching another set of PM schemes. In the Rs 20 lakh crore scheme that the Modi government launched for Covid-19, there is only a measly amount of Rs 15,000 crore for health. And with the complete opaqueness of PM CARES fund, which had collected about Rs 10,000 crore from public sector and government employees, we have no idea or any accountability on what the money is being used for. Reports in newspapers talk of the substandard quality of the ventilators supplied under PM CARES funds.

Even after months of lockdown, and now six months since the global epidemic, the Modi government has failed to ramp up testing and provide the necessary health infrastructure for the surge in positive cases we are now seeing. According to a Princeton University's Center for Disease Dynamics, Economics & Policy (CDDEP) study,⁴⁴ of the total nearly 19 lakh hospital beds in the country, only 95,000 are ICU beds. The availability of ventilators was also estimated to be very poor—just about 48,000 machines. Both of these—ICU beds and ventilators—are completely inadequate to meet the emergency for a country like India's population and size. Moreover, two-thirds of the hospital beds, ICU beds and ventilators are in private hospitals and beyond the reach of the common people. The only exception is Kerala, which has a relatively strong public health infrastructure.

The Modi government has claimed that India has registered better mortality rates from Covid-19 infections as compared to global figures. These claims neglect a simple fact that the mortality rates in Covid-19 are different based on age of the infected person. With one of the youngest median age in the world, India's figures

⁴⁴ G. Kapoor, A. Sriram, J. Joshi, A. Nandi, R. Laxminarayan, 'COVID-19 in India: State-Wise Estimates of Current Hospital Beds, ICU Beds, and Ventilators', Center for Disease Dynamics, Economics & Policy (CCDEP), April 21, 2020 (<https://cddep.org/publications/covid-19-in-india-state-wise-estimates-of-current-hospital-beds-icu-beds-and-ventilators/>).

are high compared to India's demographic profile, and not low as the government is claiming.

The larger failure of the Modi government is the belief that Covid-19 is a war that had to be fought with a command structure—an army and with complete centralization within the PMO. Even the expert bodies were not consulted before taking major steps. We are still unaware of who advised for the botched and ill-prepared lockdown, who advised its lifting or who was in charge of the epidemic control. Initially, we had senior officials of the Health Ministry who spoke to the press. No science or medical figures were presented before the people on essentially a public health issue.

Answering his voters in Varanasi Lok Sabha Constituency on day one of the lockdown (now lockdown 1.0), Modi had said,⁴⁵ 'Mahabharata was won in 18 days. The war being fought by the whole country will take 21 days. We hope to win it the next 21 days.' After failing with four stages and 10 weeks of lockdown, and the virus making steady, exponential 'progress', the Health Ministry's officials changed its goal posts. They declared victory, not based on the original objectives of defeating the coronavirus as Modi had claimed, but on computer models showing avoided deaths. The details and assumptions of these so-called models remain hidden in secrecy.⁴⁶ Perhaps we should change Disraeli's dictum of 'Lies, damn lies and statistics' to 'Lies, damn lies and computer models!'

The joint team set up by WHO and China had studied closely the Chinese fight against Covid-19 and had talked about the all-

⁴⁵ M. Kaushik, "Mahabharata was won in 18 days, we must defeat COVID-19 in 21": PM Modi answers all lockdown-related queries, *Times Now News*, March 26, 2020 (<https://www.timesnownews.com/india/article/mahabharata-won-in-18-days-india-must-defeat-covid-19-in-21-pm-modi-answers-all-lockdown-related-queries/569423>).

⁴⁶ P. Chaudhuri, G.I. Menon, 'Explained: How many Covid-19 deaths prevented by lockdown?', *Indian Express*, June 4, 2020 (<https://indianexpress.com/article/explained/how-many-deaths-prevented-6441365/>).

in-government and the all-in-people effort⁴⁷ that was the basis of China's success. In India, it is the Kerala government's approach of involving all the institutions including panchayats, and enrolling community volunteers that made it possible for Kerala to emerge not only as a model in India, but also globally. In contrast, the only public participation that the Modi government sought was banging *thalis*, and switching off lights. This is the fascist mindset that does not see people as participants but only as followers or rabble. Or people as termites,⁴⁸ to use Amit Shah's infamous phrase.

COVID-19 PANDEMIC:
PUBLIC HEALTH VERSUS PRIVATE PROFIT

Vaccines were our first line of defence against infectious diseases, introduced in the early 19th century with mass vaccination programmes along with public health systems. Antibiotics emerged much later in the 1940s–1950s, leading to the rise of big pharmaceutical companies. While modern medicines are important in fighting diseases, public health measures including vaccines, sanitation, clean water combined with higher incomes and adequate standards of living had done far more to reduce the disease burden in the affluent countries. The socialist countries had strong public health systems and a science and technology infrastructure for fighting diseases.

One of the consequences of the belief that infectious disease is no longer a concern of the rich was the rapid drying up of

⁴⁷ *Report of the WHO-China Joint Mission on Coronavirus Disease 2019 (COVID-19)*, World Health Organization, February 16–24, 2020 (<https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf>).

⁴⁸ During the 1919 Election Campaign, Amit Shah talked about 'infiltrators' as termites. See 'Illegal immigrants are like termites, will throw them out if BJP comes back to power: Amit Shah', *India Today*, April 11, 2019 (<https://www.indiatoday.in/elections/lok-sabha-2019/story/bjp-amit-shah-hindu-refugees-mamata-bannerjee-1499691-2019-04-11>).

research funds needed for developing new medicines for such diseases. Annually, tuberculosis kills 1.5 million people⁴⁹ (WHO's 2019 Global Tuberculosis Report), with India⁵⁰ alone counting for nearly half a million deaths. Yet, it took nearly four decades for new tuberculosis drugs to enter the market. The last three recent medicines⁵¹ (mefloquine,⁵² halofantrine⁵³ and artemisinin⁵⁴) for malaria, which annually infects more than 200 million, were developed 50 years ago. Two out of three (mefloquine and halofantrine) were developed by the US Army for its soldiers⁵⁵ fighting during the US colonial war against Vietnamese liberation forces.

After the fall of the Socialist Bloc, capital saw health and medicines as an avenue of making super profits at the expense of people's illness. This led to drug companies spearheading the move for a global product patent system. Under US pressure, India and other countries conceded the demand for a global product patent system, leading to the TRIPS Agreement of 1994 and the WTO architecture.

⁴⁹ *Global Tuberculosis Report 2019*, World Health Organization (https://www.who.int/tb/publications/global_report/en/).

⁵⁰ 'Country profiles for 30 high TB burden countries', *Global Tuberculosis Report 2019*, World Health Organization (https://www.who.int/tb/publications/global_report/tb19_Report_country_profiles_15October2019.pdf?ua=1).

⁵¹ H. Karunajeewa, 'Mefloquine, an antimalarial drug made to win wars', *The Conversation*, April 27, 2016 (<https://theconversation.com/weekly-dose-mefloquine-an-antimalarial-drug-made-to-win-wars-55566>).

⁵² See Wikipedia page for Mefloquine (<https://en.wikipedia.org/wiki/Mefloquine>).

⁵³ See 'Antimalarial Drugs', Malaria Site (<https://www.malariasite.com/malaria-drugs/>).

⁵⁴ See Wikipedia page for Artemisinin (<https://en.wikipedia.org/wiki/Artemisinin>).

⁵⁵ Lynn W. Kitchen, David W. Vaughn, Donald R. Skillman, 'Role of US Military Research Programs in the Development of US Food and Drug Administration-Approved Antimalarial Drugs', *Clinical Infectious Diseases*, vol. 43, no. 1 (July 1, 2006), pp. 67–71 (<https://academic.oup.com/cid/article/43/1/67/310038>).

Under the Bank-Fund policies, most countries in the Global South have seen market-based health care take over the major part of their health systems, with consequences that are visible in the current epidemic. Under Modi, the drive towards a more privatized healthcare system was combined with further slashing of the already low health budget allocations in India.

Public health yields ‘profits’ for society but not for drug companies, or the Big Pharma. Profits for capital come from ill-health. Amit Sengupta, one of the founding members of the global People’s Health Movement,⁵⁶ wrote, ‘Unethical behaviour of healthcare providers is directly linked with the fact that if care is linked to profit, more ill health means more profit! . . . Governments, not markets, can ensure that health systems address the needs of the poorest and the most marginalized.’

Strong sections in the US equate public health with what they call ‘socialized medicine’. It includes the American Medical Association (AMA), private insurance companies and Big Pharma. As early as 1939, AMA had argued, ‘. . . all forms of security, compulsory security, even against old age and unemployment . . . is a weakening of national calibre, a definite step toward either communism or totalitarianism.’ This continued with Regan’s red baiting campaign in the ’60s against ‘socialized’ medicine in AMA’s Operation Coffee Cup against Medicaid and Medicare. This is the core of the America’s right-wing view of healthcare and the reason why the US has a dysfunctional health system. While the US has the highest per capita expenditure⁵⁷ on health among the advanced countries, it lags well behind other advanced economies in most health indicators.⁵⁸

⁵⁶ See the PHM website: <https://phmovement.org/>

⁵⁷ Anders Åslund, ‘US health care is an ongoing miserable failure’, *The Hill*, January 5, 2019 (<https://thehill.com/opinion/healthcare/423865-us-health-care-is-an-ongoing-miserable-failure>).

⁵⁸ Eric C. Schneider, Dana O. Sarnak, David Squires, Arnav Shah, and Michelle M. Doty, ‘Mirror, Mirror 2017: International Comparison Reflects Flaws and Opportunities for Better U.S. Health Care’, The Commonwealth Fund

Not surprisingly, it is witnessing the worst outcome in the world during Covid-19 pandemic. Even Western Europe, which once had a strong public health system, but is now weakened by following neoliberal policies, has seen its hospitals⁵⁹ in near collapse during the Covid-19 epidemic.

While the epidemic here has exposed the huge problem with a privatized healthcare and the need to strengthen public health systems, that is not going to be fixed overnight. But there is an urgent issue with regards to drugs and vaccines that needs to be addressed. India, with its role as the global pharmacy of the poor, has responsibilities not only for its citizens but also to the global poor who have come to depend on India for low-cost, generic drugs and vaccines. It supplies 50 per cent of the global demands for vaccines and 80 per cent of the antiretrovirals required for treating AIDS patients. Even in the US, Indian pharma companies supply 40 per cent of the generic demand. Is it now in a position to act again and become the global pharmacy for Covid drugs as it did earlier for AIDS?

The AIDS epidemic was the first major outbreak in the West of a new infectious disease and a break in their confidence that the age of infections was over for them. The antiretrovirals developed for treating AIDS, cost \$10,000–\$15,000 for a year's medicine, as they were patent protected and the monopoly of a few Big Pharma companies. People died for ten years as patented AIDS medicine were at these prices, the treatment was far beyond the reach of most patients in Africa, Latin America and Asia. Finally, it was Indian patent laws that until 2004 did not allow for product patents which

(<https://interactives.commonwealthfund.org/2017/july/mirror-mirror/>); and Sarah Kliff, '8 facts that explain what's wrong with American health care', *Vox*, January 20, 2015 (<https://www.vox.com/2014/9/2/6089693/health-care-facts-whats-wrong-american-insurance#>).

⁵⁹ 'Hospitals in Spain and Italy on the Brink of Collapse as COVID-19 Deaths Mount', *Democracy Now!*, March 27, 2020 (https://www.democracynow.org/2020/3/27/headlines/hospitals_in_spain_and_italy_on_the_brink_of_collapse_as_covid_19_deaths_mount).

helped people to get AIDS medicine at less than a dollar a day, or at \$350 for a year's supply.⁶⁰

As we have noted, though we are yet to find a magic bullet for treating the SARS-CoV-2 infection, remdesivir, a patented antiviral from Gilead Science, has shown some modest success, but only in the early stage of the infection. Once it progresses to a more serious stage, remdesivir is of little value. But in the initial phase of the infection, it helps a fraction of patients recover more quickly, and therefore may reduce community spread. Anti-inflammatory drugs such as dexamethasone and other corticosteroids have shown significant reduction of mortality in seriously ill patients in clinical trials. Tocilizumab from Roche-Genentech, and itolizumab from Cuba, licensed to Biocon in India, have also been used to treat seriously ill patients but no evidence of significant benefits have yet been found in the on-going clinical trials.

Contrary to media reports, itolizumab is not a success of *atmanirbhar* Bharat as it is being claimed, but *atmanirbhar* Cuba. Cuba is a global powerhouse in biologics, the new class of medicines that are being developed to fight cancers, auto-immune diseases and viruses.

While dexamethasone is off-patents and available at a reasonable cost, remdesivir is patented, with the patent held by Gilead. In the US, it is priced at \$3,000 for a full course against the estimated cost of manufacture of \$10. The US government has bought up the next three months' stock of remdesivir from Gilead. The only medicine shown to have some effect on the virus in a clinical trial is no longer available to the world.

Even if Gilead licenses remdesivir to other companies including four in India (Cipla, Hetero, Mylan and Jubilant), it is

⁶⁰ L. Goldapple, 'India's Robin Hood of drugs: Cipla is an Indian drug company literally saving millions of lives through its reverse-engineered, low-cost medicines', *Breakthrough*, September 19, 2016 (<http://breakthrough.unglobalcompact.org/briefs/cipla-indias-robin-hood-of-drugs-yusuf-hamied/>).

priced at about Rs 32,000 for a full course. This is for a medicine which is easy to manufacture and should not cost more than Rs 300 for a full course, that is only one-hundredth the cost. The rest is due to Gilead's license fees.

If it was available at lower costs, like paracetamol or aspirin, we would have seen a large off-take cutting down on vitally needed community transmission. Who in India, or in any poor country, will pay this exorbitant amount for curing the initial mild, flu-like symptoms of Covid-19?

Dexamethasone has been shown to have significantly cut down deaths of serious Covid-19 patients. It is also off-patents, cheap and production can be scaled up easily to meet the required needs. The two anti-inflammatory medicines are the monoclonal anti-bodies itolizumab and tocilizumab. As they are biologic drugs, the manufacturing processes are more complex and scaling them up will be more difficult. The drugs are therefore more costly, compounded in the case of tocilizumab being under patents and a monopoly of Roche.

A number of vaccine trials are now underway,⁶¹ with 24 in Phase 1 & 2, and five of them entering the final Phase 3 trials. We have hopes that vaccines will be available by early 2021, though covering all the 7.5 billion worldwide and 1.3 billion in India could take up to a year. But here is the caution. Indications are that the immunity from a vaccine, or even an infection, will not last a lifetime, and booster doses will be required at a frequency which is yet to be determined. That means in order to control and eradicate Covid-19, we will need to have a continuous and worldwide programme of Covid-19 vaccination.

If we do not address the intellectual property rights issue in this pandemic, we are likely to see a repeat of the AIDS tragedy.⁶² Most

⁶¹ 'Draft landscape of COVID-19 candidate vaccines', World Health Organization (<https://www.who.int/publications/m/item/draft-landscape-of-covid-19-candidate-vaccines>).

⁶² Goldapple, 'India's Robin Hood of drugs'.

countries have compulsory licensing provisions that will allow them to break patents in case of epidemics or health emergencies. Even the World Trade Organization (WTO), after a bitter fight, accepted in its Doha Declaration (2001) that countries in a health emergency countries have the right to allow any company to manufacture a patented drug, and even import it from other countries.

Why is it then, that countries are unable to break patents, even if there are provisions in their laws and in the TRIPS Agreement? It is US bullying and the fear of the country. Under the US domestic Trade Act, it issues Special Reports—USTR 301—threatening any country with trade sanctions that tries to compulsorily license any product. India figures prominently⁶³ each year, for daring to issue a compulsory license⁶⁴ in 2012 to Natco Pharma for Nexavar, a cancer drug, which Bayer AG was selling for \$65,000 a year. Marijn Dekkers, the CEO of Bayer, was widely quoted saying that this was ‘theft’, and ‘We did not develop this medicine for Indians . . . We developed it for western patients who can afford it.’⁶⁵

It is this idea of patent pooling and supplying Covid-19 drugs and vaccines at concessional rates to poor countries that was backed by all countries in the recent World Health Assembly,⁶⁶ WHA-73, barring the US and its loyal camp follower, the UK.⁶⁷

⁶³ R.K. Joseph, ‘US tries to thwart TRIPS flexibilities in the midst of a pandemic’, *Livemint*, May 1, 2020 (<https://www.livemint.com/opinion/online-views/us-tries-to-thwart-trips-flexibilities-in-the-midst-of-a-pandemic-11588320583933.html>).

⁶⁴ ‘India’s first compulsory license granted to Natco for Bayer’s cancer drug’, *The Hindu BusinessLine*, November 14, 2017 (<https://www.thehindubusinessline.com/companies/Indias-first-compulsory-licence-granted-to-Natco-for-Bayers-cancer-drug/article20408026.ece>).

⁶⁵ J. Love, ‘Bayer CEO Marijn Dekkers explains: Nexavar cancer drug is for “western patients who can afford it”’, *Knowledge Ecology International*, January 23, 2014 (<https://www.keionline.org/22401>).

⁶⁶ World Health Assembly (<https://www.who.int/about/governance/world-health-assembly>).

⁶⁷ S. Boseley, ‘US and UK “lead push against global patent pool for Covid-19

The US, unlike the UK, also expressed its disagreement⁶⁸ with the final WHA resolution on this issue. It does not solve the problem of high prices or availability, as ‘concessional’ rates of Gilead’s remdesivir are still too high for the overwhelming majority of people in the world. It is also unclear which countries are available for concessional pricing. But at least it is better than being totally at the mercy of Big Pharma.

Once a vaccine or a drug has been tried and proven, any country with a reasonable scientific and industrial infrastructure can duplicate the same. If they have the political will to do so. The legal justification within the patent system or in WTO’s Doha Declaration already exists. So why are countries afraid to follow through?

Here, the current US trade war with China is slowly forcing countries to take sides. The US is bent on splitting the world, and attacking all the international institutions⁶⁹ including WHO, the only instrument of cooperation we have during a pandemic. It wants to use vaccines and medicines as a weapon⁷⁰ in its trade war against China. And countries like India, which have the ability to create Covid-19 drugs and vaccines, are unwilling to take any measures that will annoy Trump and the US. Only this can explain the Modi government’s timidity in using Article 92 of the Indian Patent Act, in

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drugs”, *The Guardian*, May 17, 2020 (<https://www.theguardian.com/world/2020/may/17/us-and-uk-lead-push-against-global-patent-pool-for-covid-19-drugs>).

⁶⁸ ‘U.S. Explanation of Position “COVID-19 Response” Resolution’, US Mission to International Organizations in Geneva, May 19, 2020 (<https://geneva.usmission.gov/2020/05/19/explanation-of-position-covid-19-response-resolution/>).

⁶⁹ Prabir Purkayastha, ‘Trump’s Withdrawal from WHO: a Cover-up for its Abject Failure on COVID-19’, *Newslick*, July 18, 2020 (<https://www.newslick.in/Trump-Withdrawal-WHO-Cover-up-Abject-Failure-COVID-19>).

⁷⁰ Prabir Purkayastha, ‘US Declares Vaccine War on the World’, *Newslick*, May 23, 2020 (<https://www.newslick.in/US-Declares-Vaccine-War-World-China-Covid-19>).

which the Left played an important role, and break Gilead's patent.

While remdesivir has only modest benefits, the big battle is over vaccines. Among the five, the Oxford-Astra Zeneca vaccine has tied up with Serum Institute, Pune, which is the largest generic vaccine manufacturer in the world. Will it be available at prices that the country can afford? What happens if Moderna's vaccine succeeds and Oxford's does not? Will India be willing to break Moderna's patents?

The Indian vaccine developed by Virology Institute, Pune, and Bharat Biotech is under Phase 1 & 2 trials and some distance behind the other front runners. There are two Chinese vaccines—CanSino's and Sinopharm's—which have also entered Phase 3 trials. The Chinese government has said they regard the vaccines as public good and it will be made widely available. Will India be willing to cooperate on the vaccine front with China?

What prevents us, or any country for that matter, from manufacturing vaccines or the drugs once they are developed? Only the empty threat of a failed hegemon on breaking patents? Or the belief that in the US–China vaccine war, they need to be on the US side?

The challenge we face as global citizens is this: even if there are medicines and vaccines, will they be available to everybody? At prices that people and poor countries can afford? If they are not, the epidemic will still continue. Trump's walls, or a fortress America, will not work. Nor can Libertarian Ayn Rand's Atlas 'shrug off' the disease. This is a battle that individuals or countries alone cannot win by themselves; we either stand unitedly or we perish individually. Only collective action and global unity, or what Ronald Reagan called, with dread, 'socialized medicine' can save the world from the Covid-19 pandemic.