What Was That? Coronavirus, Chaos and Democracy

By Michael Fine

Boys and girls like beer

-- Brett Kavanaugh, Associate Justice, US Supreme Court

Every morning at 5AM, three or four white minivans leave from a parking lot on Cowden Street in Central Falls, Rhode Island for factories all across southern New England. Each minivan is densely packed with ten to fifteen mostly undocumented immigrants who live two or three or five people to a room in the ramshackle wooden frame triple-deckers that are crammed into every available square foot in this old mill city. The people in the minivans are from all over the world - from Guatemala, Honduras and El Salvador, from Cape Verde, the Dominican Republic, Colombia; and Puerto Rico – refugees from Hurricanes Maria and Dorian who can't find other jobs here. The vans are run by labor contractors who find and supply unskilled labor to the low wage employers who need bodies for the hot, dirty, smelly and dangerous jobs no one else wants, in the factories, construction sites, meat-packing plants and fish-houses of Southern New England. The vans charge each worker $5 to $10 a day. The work pays minimum wage - $10.50 an hour in Rhode Island, $12.00 an hour in Massachusetts, $11.00 an hour in Connecticut. There's lots of wage theft on these jobs – sometimes workers only get paid for eight hours when they work 12 or 14, or get told the labor contractors haven't been paid yet and then never get paid, or are paid piece work using a scale that means they earn $5 or $6 dollars an

hour, when they were promised $20 an hour – but you'd have to produce at an impossible pace to generate that much income.

"Yes we drank beer. My friends and I. Boys and girls. Yes, we drank beer. I liked beer. Still like beer. We drank beer," said Judge Brett Kavanaugh during his testimony to the US Senate Judiciary Committee confirmation hearing.

This testimony provided a unique lens on American culture and mores. A preening conservative President, pandering to his base, chose an undistinguished juror to sit on the U.S. Supreme Court. The opposition party, powerless to stop Kavanaugh's confirmation, used accusations about the nominee's behavior *in high school* as the bulwark of their objections to his nomination.

By the time Judge Kavanaugh testified, the process of Supreme Court nomination and confirmation had already been defiled. The nomination to the Supreme Court of Judge Merrick Garland two years earlier had been blocked by the Senate Majority leader, just because he had the power to do that. This occurred just six years after a President had forced through health care insurance reform, because he had the power to do *that*. Health care insurance reform was unanimously opposed by a minority party, even though the reform itself was based on the ideas of that minority party, which objected only because it was in their perceived political interest to resist the reform, the hell with what the country wanted and needed.

Any pretense of government of, by and for the people, and of governing for the good of the nation had fallen by the wayside years ago. The U.S. Government has long been controlled by special interests, the consequence of the over-centralization of capital, itself a consequence of changes in banking and securities regulations that had been sought by the banking and securities industries themselves. The notion of a common good, of Americans as one people with liberty and justice for all was replaced by narcissism, consumer capitalism, and greed. Brett Kavanaugh is a shallow self-satisfied man - the pure product of a culture without compass or meaning. He now sits on our highest court, appointed for life. *I worked hard*, he said. *I played basketball. I got into Yale and Yale Law School. I got ahead. And yes, I like beer.*

These are the values we brought with us into a pandemic.

The nomination and confirmation of Brett Kavanaugh posed a simple question. In the words of another time - have we no sense of decency or responsibility to ourselves as a people?

The story of SARS-CoV-2 and of Covid-19 makes the answer to that question clear. We let loose a pandemic in the US that will cost at least 250,000 lives because we have lost our sense of dignity, our discipline, our courage and our pride.

Almost all the deaths from Covid-19 were preventable. Any fingers to be pointed must be pointed directly at us – at ourselves, our culture and our politics. No one did this to us. We did this to ourselves.

Sometime in September or October of 2019, a bat, a pangolin or some other wild animal in China coughed, sneezed, or cried out, perhaps in pain from being caught or slaughtered, or just breathed near a human being. Out of that animal came a virus – or more likely a thousand or more viral particles from the family of viruses called Coronavirus - that hung in the air for a moment. Then a human being nearby inhaled. The virus entered the nasal passages and perhaps the lungs of that person, an event likely happens millions or even billions of times a day.

The transfer of viral particles from animals and other human beings is a common, even trivial, event in the human experience. Those particles are always in the air we breathe and they are what our nasal passages, our lungs, our respiratory secretions and our immune systems work to protect us against – almost always effectively. Most of the billions of viral particles we inhale or introduce into the body by touching eyes, nose or mouth have no significant impact on the health of individuals. Many viral particles that infect other species – plant viruses, insect viruses, frog and toad viruses and bird viruses - have cellular architecture that is slightly different from the cellular architecture of human cells, so most of those viruses are unable to attach to human cells or cause infection. Most of those viral particles are quickly destroyed by the immune system. Most are just dust.

But the virus that entered a human body in the fall of 2019 was different. That virus, which likely evolved in another mammal, had a mechanism that allowed it to attach to specific proteins in certain human cells, cells that line the nose, are present in the lungs and heart and in small numbers in the gastrointestinal system, proteins that are called ACE2 receptors. ACE2 receptors are the proteins that allow the attachment of a hormone called *a*ngiotensin *c*onverting *e*nzyme, a hormone that helps regulate blood pressure, among other functions.

The virus attached to human cells. It entered those cells and inserted itself into the genetic material of those cells, which is what viruses do. The virus then caused those cells to make copies of itself. Those copies destroyed the cell and were released into the blood stream where they found and attached themselves to the ACE2 receptors of other cells and entered those cells and their genetic material. Those cells began making still more copies of the virus – billions and billions of copies.

That human being had become infected. And then that human began to cough, or sneeze, or breathe or speak, so that the virus entered the air and infected other people nearby. And those people coughed and sneezed and infected other people. The newly infected people infected others, over and over again, until at least sixteen million people who have been tested and counted, as I am writing this, but very likely many more than that – likely a hundred to two hundred million people - people who have had the virus but haven't been tested or counted – have become infected. Which is not many, really, when you consider that none of us has seen this virus before so have no immunity to it. And that there are seven billion of us. Likely all seven billion human beings are susceptible to this new virus and will become infected with it before long since none of us were immune to it in the fall of 2019.

Seven billion humans. 200 million people is about three percent of seven billion, so many more people will become infected before this pandemic is over.

I thought I'd sit out the Coronavirus outbreak in the US as an observer. I'm a fiction writer turned doctor turned fiction writer again. I worked as a family physician and then started doing public health in my late fifties. I was Director of the Rhode Island Department of Health

2011-2015 a period that included the Ebola epidemic of 2014-2015. Along the way I've had the privilege of knowing three CDC directors, three Surgeons General (one of whom I helped train to be a state health officer, in 2015) and about 100 city and state health directors, a number of whom are close and dear personal friends with whom I talk frequently. I know CDC and its culture. Many friends and colleagues work there. And I also know government and how it works at the federal, state and city levels. Or doesn't.

When reports began to come out of China of hospitals overwhelmed, of a doctor who had been silenced and then died of the disease, of health workers getting sick and dying in large numbers, of people dying in the streets of Wuhan, I was writing in the morning, and working in the afternoons – seeing patients two half days a week, and trying to develop new programs to reduce cost and improve access to health services in Central Falls, Rhode Island, the smallest, poorest and most densely populated city in the state. I consulted a little with the mayors of Central Falls and Pawtucket, Rhode Island, a neighboring city, but had turned my attention to writing fiction, an old first love. I worried a little about this new virus but I assumed that the Chinese CDC and WHO would get in front of it and get it stopped before it spread too far.

I didn't expect to find myself in the middle of one of the worst outbreaks of Coronavirus in the nation.

I also didn't expect the public health apparatus of the world and nation to so dismally fail. Or that the failure would reveal again what my 2018 book *Health Care Revolt* was written to reveal originally – that we have a medical services market, a pharmaceutical products market and a health care insurance market – but that we don't have a health-care system in the United States, a system that provides the same set of essential services to all Americans. Our medical,

pharmaceutical and health care insurance markets are focused on profit, as markets should be, and not public health. These markets, and the profit focus of American society, have produced a culture in which the rich get richer and the poor are kicked to the side of the road.

Again. The poor get kicked to the side of the road. We have decades of data showing how the market focus of American health care has made our population sicker and poorer, worsened income inequality in the US and has disadvantaged the poor and people of color. You would have thought we'd learned something from all our studies, and used what we learned to do a better job with Covid-19. Instead, we failed again, and failed so profoundly that we locked up our society for at least a year, and perhaps for as long as half a generation.

Still, because of my role with a community health center and with the two cities, I paid close attention to the stories and the data coming out of China in late 2019 and by January of 2020 was able to brief the mayors and my colleagues about what we were learning: This new Coronavirus is in the family of viruses that cause the common cold. This one likely evolved in bats and crossed over to human beings in the fall of 2019 in Wuhan China. It was related to the coronaviruses that cause SARS and MERS but this virus appeared to be harder to contain. In most people this new Coronavirus causes mild disease – runny nose, fever, cough, loss of taste and smell, and sometimes nausea, vomiting, and diarrhea. But the new Coronavirus spreads quickly and can cause a very serious lung infection in some people, something called Adult Respiratory Distress Syndrome, which is much worse than a simple pneumonia and can be fatal in about one third of the people who get significantly ill. The case fatality rate - the ratio of the

number of people who get the disease to the number of people who die of it - was reported to be 3 percent, so that of a hundred people who would get the disease likely three would die, which made this Coronavirus thirty times more lethal than influenza but twenty times less lethal than Ebola, a virus that kills 50-75 percent of the people who get it.[i]

I had played a very small but active part of the US and Rhode Island responses to the Ebola outbreak in Liberia and West Africa in 2014 and it was that experience that I drew upon when I tried to understand and predict what would happen with this new Coronavirus. Rhode Island has the highest percentage of Liberians in the US. I had spent three weeks in Liberia in 2009 so when Ebola broke out in West Africa in 2014 I helped advise CDC about the conditions on the ground in Liberia and worked closely with the Liberian community in Rhode Island to help prepare us in case someone in Rhode Island developed Ebola or in case we found a new immigrant with that disease. That meant I spent most of August and September of 2014 on the telephone, putting people at CDC together with people who knew Liberia and its very limited medical resources - people like Jim Tomarken MD, who had lived in Liberia for four years and helped run its largest hospital and who served as the personal physician to its president, Ellen Johnston Sirleaf.

And then I spent time on the phone with other old friends and high-level contacts in Congress, recruiting help for Liberia in any way I could. I got to see close up and personal the way that response was organized, and let me tell you, that process wasn't organized and it sure wasn't pretty. Inside the *Obama* White House, the military and the state department were fighting with CDC and HHS over who was going to take the lead in the US response, a fight that wasted precious time as the virus was spreading. Sound familiar?

Ebola in West Africa wasn't stopped by the WHO and it wasn't stopped by the CDC, although CDC was effective in preventing Ebola from getting to the US. Instead, Ebola was stopped by a number of international organizations, funded in part by USAID using a process called social mobilization, which trained community health workers in Liberia to organize people in their own communities to use simple infection control techniques that stopped Ebola from spreading. The effort to control Ebola in Liberia was supported by Cuba and by other African countries – the Cubans sent 165 doctors and other health care workers and the African Union sent 1000 health care workers to Liberia to help care for victims of Ebola. [ii] (The US military sent 3000 troops and built 15 Ebola treatment centers, most of which were never used because the disease had been contained by the time the Ebola treatment centers were ready.)

Our response to Ebola in 2014 was far from perfect but it was good enough - Ebola killed 10,000 people in West Africa which was a tragedy but it didn't kill the 1.4 million people that CDC and WHO predicted it would kill by December of 2015 – and it didn't spread beyond Liberia, Sierra Leone and Ivory Coast --the three African countries involved in the initial outbreak. WHO delayed declaring a public health emergency for too long, allowing the disease to spread to those three countries. Public health authorities in the US were slow to prepare communities and hospitals so there was widespread panic when a few imported cases arrived on our shores. But Ebola was stopped at our borders by CDC working in close collaboration with TSA and the US State Department. Every single Liberian who came to the US after Ebola started to spread in Liberia was required to isolate for 14 days before coming here and every single person who came here from Liberia was quarantined and was closely monitored by state and local health department personnel for 2 weeks after arrival. That process itself was far from perfect - information didn't flow as well as it could have, and sometimes new arrivals were hard

to find when they got to their destinations -- but it worked. Only one person got Ebola in the US and there was no community transmission.

We would eventually learn that this Coronavirus *is* a little like Ebola in that no one in the population had ever had it so no one was immune. Epidemiologists believed that all of us were likely to get Covid-19 unless it could be stopped at our borders. But SARS-CoV-2, which is the name WHO would eventually give this new coronavirus was also a little like influenza in that it appeared to be spread by respiratory droplets – by coughing and sneezing. In fact, SARS-CoV-2 virus is also a little like measles – it is aerosolized and can be spread by speaking and breathing, which makes it more infectious yet than influenza ever was.

And we would eventually learn that SARS-CoV-2 was a particularly tricky virus to deal with in more ways than one.

It's tricky to deal with as an infectious disease because there is no treatment and no vaccine and because it is aerosolizes. It gets into the air when someone breaths or speaks and just hangs there for a couple of hours so it can infect other people who just share the same air space as an infected person or come into that airspace even after the infected person is gone. It also exhibits what is called asymptomatic carriage and transmission – it can be spread by people who have no symptoms of it at all.

SARS CoV-2 is also tricky to control because at least 35 to 50 percent of people infected with the virus have no symptoms (which means, technically, that they have the virus but do not

have the disease Covid-19.) So we have no way to know who has SARS CoV-2 and who doesn't. Even the words we use to describe people without symptoms are tricky. Some people without symptoms will never get symptoms, and so they are called *asymptomatic* or *asymptomatic carriers*. We know almost nothing about this group, because we have no test that tells us with precision who has the virus and who doesn't. We don't know how long a person is likely to have the virus if they don't have symptoms. We don't know how likely it is for a person without symptoms to transmit the disease to others. We don't even know how likely it is for a person without symptoms to test positive for the virus.

Some people without symptoms, however, *will* develop Covid-19. Those people are considered *pre-symptomatic* and are very likely to spread the virus during the two days before they develop symptoms. We think that group is more likely to test positive during the two days before symptoms develop. Even so, we don't know very much about this group because there is no way to know whether a person who has no symptoms is about to develop them which makes this group difficult to study. That said, pre-symptomatic people pose the same problem as asymptomatic people – we don't know who is carrying the virus and can spread it, so we have no certain way to prevent the spread of the virus or the disease by restricting the movements of people carrying the virus, because we don't always know who they are.

To make matters worse, we don't have tests for SARS- CoV-2 that work very well. No test tells us with certainty when a person is free of infection with SARS- Cov-2. Our tests are helpful if they are positive, which means a person very likely has the disease. But our tests are useless if they are negative, because they don't say with any certainty that a person DOESN'T have a SARS-CoV-2 infection. Again, we have no way to know who *doesn't* have the virus. In

other words, *anyone* could have it. So we really have no effective way to isolate *everyone* who might have it and stop its spread.

SARS-CoV-2 is also tricky to deal with from the perspective of public policy because it doesn't affect everyone equally. For a large number of us it is completely silent, present without any fever or cough or even sniffles, , although as I just described, asymptomatic people can likely spread it, but we don't know how likely that is. For most others, it creates only mild symptoms – a runny nose, nausea, vomiting or diarrhea, a low grade fever, sudden loss of the sense of taste or smell, or a little cough. But for a few others, likely about ten percent of people who get the virus, it causes a very severe illness, a devastating pneumonia, lung failure and, for a quarter to a third of the people who need to be hospitalized for the disease, death.

The disease kills the old and the sick but leaves most children and young adults unaffected. That means that older people want to protect themselves while young people have no real self-interest in following public health guidelines to prevent the spread of the disease. The virus spreads quickly in densely populated places where many people live in one house or apartment and share one kitchen and bathroom -- but slowly in rural and suburban areas where space creates distance and safety, so poor and working people are at much greater risk of getting the disease. Poor and working people often have jobs that require their working outside of the home every day. They have to go out to work during lockdowns and stay at home orders, so they are much more likely to become infected at work, and are much more likely to spread infection when they come home, infected, into densely packed housing. Poor and working people are at much greater risk of getting and then dying from Covid-19 because they carry a greater burden of underlying illness - the end result of a lifetime of poverty, of doing physical labor, of emotional stress, and of living in substandard housing in neighborhoods where the air and water

was polluted long ago. In the US, painfully, Covid-19 impacted people of color disproportionally because people of color are too often poor, working or already sick, and live in densely packed housing, the end result of hundreds of years of exploitation, abuse and unequal access to education, decent housing, transportation and medical care.

So the rich have little to lose when Covid-19 spreads because they can isolate, protect themselves, and are less likely to be infected when Covid-19 spreads among poor and working people. People who live in rural areas have little to lose when Covid-19 spreads in urban communities. And the young have little to fear. But try constructing a public policy that treats people differently, based on their risk. Try creating a public policy that protects poor and working people at the expense of the young and wealthy. Democracy in the US is scrambling to survive, in part because of income inequality itself. This virus begs us to treat population groups differently, based on their risk, and that tugs harder on the forces that are already pulling democracy apart.

In early January of 2020 we heard that Dr. Li Wenliang, an ophthalmologist in Wuhan, was summoned to the Wuhan Public Security Bureau and was accused of "making false comments" that had "severely disturbed the social order." He had sent a warning to 30 colleagues about the need to wear protective clothing because he'd seen seven cases of a SARS-like illness at Wuhan Central Hospital, a warning that had gone, as it were, "viral" in China.

But we didn't hear that on New Year's Day, Admiral Robert Redfield, Director of the US CDC, had his vacation interrupted for a day of telephone conversations about the outbreak in

China, or that a few days later Dr. George F Gao (Gao Fu), Director of the Chinese CDC, supposedly burst into tears during a conversation with Admiral Redfield.[iii] Dr. Gao broke down because things were moving fast and the virus was already out of control.

The number of reported cases was increasing rapidly – 41 cases by January 2nd; 44 cases by January 3rd; 59 cases by January 5th.

The virus was identified and its genome was posted on January 7th, 2020.

The first human death from Covid-19 was on January 9th.

By Mid-January there were cases outside China - first in Thailand, then in Hong Kong and Japan. And then there were cases in the US.

The good news is that the WHO stood up its incident command system on January 2nd and the US CDC stood up its incident command system on January 7th, 2020. The bad news is not much that could effectively prevent the transmission and dissemination of this new Coronavirus happened in China, in the US or in too many other countries after that. Every moment from January 1st, 2020 until today represents a lost opportunity to stop the virus in China or to stop its spread in the US - opportunities we continue to lose every minute of every day.

Here's what could have and should have happened during that first week of January. The Chinese should have acknowledged human to human spread of a new disease to WHO and to the US CDC. The Chinese should have stopped all travel out of Wuhan that first week instead of

waiting until January 23. It has been estimated that about 60,000 travelers left Wuhan during this period, including at least 834 people who carried SARS-CoV-2 virus, and traveled to 382 cities during this period. [iv]

It is now pretty clear that local officials in Wuhan were sitting on evidence that the virus was spreading rapidly. On January 18th, Wuhan threw its annual Chinese New Year's banquet for 40,000 people, which explains why it took so long for the government to act – they didn't want to disappoint the 40,000 people coming for dinner. So much for public health. The world – and many of those 40,000 people - got Covid-19 instead.

WHO could have and should have declared a world health emergency no later than January 7th instead of waiting until January 20th to issue its first situation report. (By January 20th there were 282 known cases in at least five countries. WHO reported four countries but the first US case was identified on January 20th, on the day of the first WHO situation report.) Instead WHO waited until *January 30th* to issue an emergency declaration. The US CDC could have and should have started isolating all travelers from Wuhan, and likely, all travelers from China by January 7th, using the same process we used for Ebola in 2014 - quarantine for 2 weeks before travel from China; quarantine for 2 weeks in the US after arrival.

Instead 400,000 people came from China to the US in January. Only about 4000 of those people were screened at all, starting January 18th, at only three US airports, and all the screening they got was to be met on arrival by personnel from the CDC who asked them about symptoms and checked their temperatures. No one put these people into quarantine. [v] [vi] Indeed, the CDC's National System for Syndromic Surveillance which tracks the number of people with respiratory symptoms seen in Emergency Departments and in primary care offices and Epi-X,

the public health communication systems that CDC used during Ebola in 2014 to track people from West Africa entering the US, both failed during this period. They were overwhelmed by the number of cases needing tracking and Epi-X was quickly rendered useless because it used antiquated processes and programming. [vii]

The Chinese obfuscated during all of the first three weeks of January. WHO enabled the Chinese. The US CDC was just asleep at the wheel. Twiddle Dee and Twiddle Dum, squared.

You can argue that politics played into all this. The Trump administration was fighting with the Chinese over trade, and Democrats were busy impeaching the president. (Remember that impeachment moved from the House to the Senate on January 16th, the trial began on February 3rd and that the President was acquitted on February 5th.) You can argue that the Trump Administration had weakened our response capacity by disbanding the National Security Council's Pandemic Response Team, something that happened in May of 2018, and by removing Linda Quick, MD, the resident advisor to the US Field Epidemiology Training Program in China, something that happened in July of 2019.[viii] But the truth is that there were multiple failures across multiple continents, governments and organizations. People who should have known better didn't. We got distracted. Boys and girls like beer.

And then it got worse.

CDC issued its first advisory on January 9th, 2020. An advisory is the second rung of the CDC's public health alert system which is designed to provide important information but which

does not require action. Interesting problem, I thought from the advisory. But it's over in China. A Coronavirus like SARS or MERS, which were controlled and eventually contained.

In mid-January we also heard the first of a series of startlingly incorrect announcements from public health officials from around the world. On January 14th, Dr. Maria Van Kerkhove, acting head of WHO's emerging disease unit, said that although there had been limited human-to human disease transmission among family members, "it is very clear right now that we have no sustained human-to-human transmission" even though she provided evidence of human-to human transmission *in the same statement*. [ix] Dr Van Kerkhove is the same person who said, in early June, that there was no good evidence of asymptomatic people spreading Covid-19, somehow missing that there was a pandemic caused in part by asymptomatic disease that had already killed 400,000 and infected 8 million. Some people, charitably, might call these and a number of similarly incorrect announcements from WHO and CDC – from scientists and public health professionals, not politicians - incorrect statements. Some people might call them lies.

For all the Sturm und Drang about the virus in the world press in January, people kept traveling around the world. There was a company meeting of the auto-parts manufacturer Webasto in Stockdorf, Germany, attended by a Chinese employee from Wuhan who infected at least 16 people on January 23rd but which was not widely reported until February - an outbreak that has been linked to other outbreaks in Italy and in the ski resorts of Italy, France and Austria. A still unnamed international sales company had a private meeting of 109 people, 94 from overseas, in Singapore on January 20th-22nd at the Grand Hyatt Hotel, that infected at least nine

people in Malaysia, South Korea and Singapore. On January 20th the cruise ship Diamond Princess left Yokohama with passengers and crew from 48 countries including Japan, the US, Hong Kong, the Philippines, India, and Indonesia. People on 40 cruise ships would become infected and 80,000 crew would end up stranded at sea.

Company executives. Skiers. People on cruise ships. Intercontinental flights. The virus spread faster and wider by people of means globetrotting for business or pleasure.

It is worth noting that by the time the music stops, the bulk of the people who will have died of this disease will be people who are aged or infirm, people of color in the US, poor working people all around the world, people who can't afford to social distance or work from home, and millions of people who struggle every day with poverty and malnutrition or who live in countries where there is no oxygen and there are no ventilators to prevent the deaths that are preventable from this disease. People who fly sail and fly around the world for business and pleasure – the rich and the famous --spread Covid-19. People who have to go out to work every day to put food on their tables die of it. *Now* let us praise famous men and women, one more time – the boys and girls who like beer. And white wine. And Champagne. Who said the world is fair?

The WHO got around to issuing its declaration of a public health emergency on January 30th after which the US got around to announcing a ban of flights from China, effective February 2nd.

By the beginning of February there were stories in the New York Times and on the internet about how Wuhan was overwhelmed by people who were sick and about how clinics and hospitals were filled. There were pictures of people lying dead in the street.

Doctor Li Wenliang died from the novel Coronavirus on February 3rd. He documented his hospital stay and the end of his life on the internet. There was a Chinese and then an international outcry about this man who had been disciplined and attacked by his own government for telling the truth and for warning his colleagues and the public about this new disease, thereby fulfilling the mission of all health professionals. In this regard he brought honor to himself and his profession. His death will always stand as the signal tragedy in a year of tragedies – one bright spot of honor in a time when many people failed. Too many other health care workers would sicken and die, exemplars of unselfish courage, while bureaucracies and governments failed to act.

For a few days, I thought the outcry might strengthen the hand of human rights advocates in China and weaken the stranglehold of a progressively dictatorial government which had been working to snuff out freedom of expression and worship in Hong Kong, in Tibet among the Uyghurs and all across China itself. Silly me. Instead the Party would use this crisis to tighten the noose around the necks of its own people and of the freedom fighters in Hong Kong.

WHO got around to naming the virus and the disease on February 11th: the virus -- SARS-CoV-2 -- and the disease that the virus causes -- Covid-19. WHO didn't declare a pandemic until March 11th -- until after there were people infected with SARS-COv-2 in over a

hundred countries, even though this outbreak likely met the definition of a pandemic a full month earlier.

In mid-February I wrote an Op-ed (turned down by at least 2 newspapers) arguing that we were not prepared for Coronavirus. I ordered a pulse oximeter, a device that detects the level of oxygen in the blood, because, from what I read, that was going to be best tool to help sort out who needed the hospital and who could stay at home safely, the only real medical decision that needs to be made about people who contract Covid-19 in the community. And revised my will.

But February, in retrospect, was the cruelest month. February, Superbowl month. If the ball was fumbled in January, by February it had been dropped and scooped up by the virus, which ran it right back over the finish line. The finish line for about 30 million human beings.

In February people traveled farther, silently spreading the virus wherever they went. On February 8th the first symptoms appeared in a waitress in Ischgl, a ski village in Austria, the first evidence of an infection that would spread from Ischgl to Iceland, England, Israel, Denmark, Germany, and Norway. On February 18th, more than 2500 people gathered from around the world at the Christian Open Door Church in Mulhouse, France, near the borders with Germany and Switzerland. Many of those 2500 people became infected and took infections home with them to Burkina Faso, in Africa; to Corsica; and to Guyana, in South America. Biogen, a pharmaceutical company that sells very expensive braded drugs for multiple sclerosis and other neurological diseases, had its annual leadership meeting on February 26th and 27th in Boston, which brought in 175 executives from around the nation and the world to a buffet dinner at the Marriot Long Wharf on Boston Harbor. Ninety-nine of those people would test positive for SARS-CoV2.[x]

All that travel in February was a problem. But the incorrect information that was coming out of WHO and CDC in February was more problematic yet. Test only people who are symptomatic and have been in Wuhan, WHO and CDC were saying. Asymptomatic people can't transmit the disease. The most charitable description I can give of that advice is that it was incorrect. Every doctor in the world knows that people with viruses can be infectious for several days before they become symptomatic. All of us know that other coronaviruses can generate a carrier state in which a person has and can transmit the virus but has no symptoms and that such a carrier state can exist for weeks or even months. But we were told to ignore what we already knew, as if this new Coronavirus was so different that is was completely unlike any other virus that infects human beings. And then we were told that this virus is spread only by respiratory droplets only. It's not aerosolized. But respiratory droplet spread, which is how influenza spreads, should have made this Coronavirus much less infectious. How could we explain the rapid spread we were seeing all over the world?

We all made the same mistake together. We all believed WHO and CDC instead our own clinical judgment and our own clinical experience. B by and large, almost to a person, we did what we were told to do. So those of us who know medicine and public health were complicit in this mess. We sat on what we knew and failed to speak out, bullied by the authority of CDC and WHO. We own this too.

On February 21st, the first Italian patients were hospitalized in Lodi, Veneto and Padua. 11000 health workers infected; 100 deaths; 146,000 cases; 18,000 deaths inside of a month.

Eventually 235,000 cases and 34,114 deaths in Italy alone as of the end of July 2020. 314,861 cases and 35,894 deaths by October 1. 2020.

If the worst failure in February was hearing and not challenging CDC and WHO about asymptomatic spread and the notion that only people who could be infected were people who had traveled from Wuhan, the second worst thing that happened was the US failure to make testing widely available.

The first useable laboratory assay for SARS-CoV-2 was developed in Germany on January 16, 2020. The US CDC developed its own test on January 20, 2020 and sent that test to the State Laboratories of every state so state could identify the as yet unnamed novel - Coronavirus, should it appear in the US. (The test was sent out on the same day that the first US case was actually reported, in Spokane, Washington.) The CDC test was theoretically more precise than the German test but there was a problem – the US test didn't seem to work, right out of the box. There was a manufacturing flaw. So CDC told state departments of health not to use the test it had just sent out which meant the nation had almost no way to know if the virus had arrived in the US or not. State departments of health could send samples to CDC in Atlanta for testing but they couldn't run their own tests.

Sending samples to CDC meant that the process took at least several days instead of producing same-day or next- day results, which is how long results take when testing is done in each state. And CDC only had the capacity to test about 100 samples per day – or about two from each state.

So local public health authorities had no choice but to strictly ration samples sent for testing. Two a day. You pick your most likely cases - people who had traveled from Wuhan itself, people who had contact with someone known to have the virus *and* had the classic symptoms of the new Coronavirus infection – fever, cough, severe shortness of breath, or people who required hospitalization with what appeared to be pneumonia. There just weren't enough tests to test anyone else.

But rather than admit we'd screwed up the manufacturing of tests, and rather than move mountains to get usable tests from other nations, CDC did something that was despicable and cowardly. They hid behind a recommendation that was a lie. The only people who needed testing, they said, were people who have traveled from China (first) or Europe (next) and had symptoms, or people who had been exposed to other people with symptoms. They said we didn't need to test people in quarantine coming from China or Europe before they leave quarantine, because people without symptoms don't test positive. They said that only people who have symptoms can transmit the disease, a claim the rest of us knew was patently false. Two lies, which destroyed CDC's credibility forever. We expect the President to lie. But not CDC.

That meant that no one without symptoms could be tested and that at least some people who likely had the virus and could transmit it moved into the general population and began to transmit the virus to others. That meant the hundreds of thousands of travelers from Europe and China in January and February went untested. It wasn't until the end of February that CDC allowed state health department labs to begin using the test that had been sent out a month earlier, employing a work-around that was less precise but not much different from the German test which had become available six weeks earlier. Worse, in late February a heroic lab in Seattle that began testing specimens they had been collecting for an influenza study (using a test

they developed themselves) and that documented community transmission of SARS-CoV-2 for the first in the United States wasn't awarded the Nobel Prize for their work. Instead, they were ordered to stop testing! Not by the CDC itself, of course. By state bureaucrats, who worked for a state department of health funded by CDC, in what looks uncomfortably like a cover-up.[xi]

By the time CDC liberalized testing a little, the first cases had been in the US for over a month, and we had no way to know how fast or widely the virus had already spread. [xii] Even so, during February, when CDC was doing the only testing in the nation, CDC itself was testing only 50 to 100 people a day. It wasn't until March 4 that the US was able to test more than 1000 people a day and not until March 16 that we got beyond 10,000 people a day.[xiii] On March 6, however, Vice President Pence assured the nation that anyone who wanted a test could get a test. Widespread easily available testing was not available nationwide until late May and even then it came first to states where governors went on the warpath to get supply and make testing widely available As of August 1st there are still places where demand far exceeds available testing, where people wait on line in their cars for hours, and where there is often a delay of ten to fourteen days for results, which makes testing meaningless, from a public health perspective.

But the notion that testing was the key to stopping Covid-19 was itself a lie because testing doesn't break the chain of disease transmission. Only isolation and quarantine does that. We should have and could have isolated every single person with Covid-19 and quarantined every single person coming from China and Europe for three weeks on their arrival in the US and should have policed that isolation and quarantine. Testing creates a false sense of security because testing itself is still far from perfect. Many people who test negative have the virus and can spread it anyway. So rather than focus on testing we could have and should have started

isolating everyone with symptoms right away and used quarantine much more aggressively. By not recommending much more aggressive quarantine and isolation CDC failed us one more time.

And then CDC lied about masks.

Early in the pandemic there was a shortage of N95 masks, surgical masks, and personal protective equipment for health workers. That such a shortage existed just five years after Ebola, when the country focused on personal protective equipment, is itself scandalous – but disaster planning, although important, isn't CDC's core function. There was a run on masks – people in the general public snapped up the supply needed for health care workers. I knew the science around masking pretty well because, eight years ago Rhode Island became the first state in the nation to require that health workers who were not immunized against influenza wear surgical masks during flu season, a regulation that was written while I was the Director of the Department of Health, at my direction. We knew then and still know now that masks reduce disease transmission primarily by preventing respiratory droplets from a person with an infection from being spewed into the environment as that person breathes, speaks, coughs or sneezes.

But CDC didn't say that. When we needed to ask people to reserve N95 and surgical masks for health care workers while there was a shortage of masks, CDC said masks don't work to prevent the spread of SARS-CoV-2. That wasn't true then and it isn't true now. People in their own communities figured out that they could make their own cloth masks and use those masks to prevent disease transmission. CDC had to retract its claims that masks don't work and subsequent population health science has established with good evidence that cloth masks work

and N95 masks work better. Now many Americans wear cloth masks. But CDC's credibility is tarnished forever. In the midst of a pandemic. Shame on all of us.

If January was the month of being asleep at the wheel and February was the month of dropping the ball, March was the month when the excrement hit the fan and the chickens came home to roost.

On March 1st, the first case was reported in Rhode Island. We quickly documented community transmission, closed the schools and locked down the state, sort of. Factories stayed open. We started testing. Sort of. Because we didn't have access to much testing, at least at the start, although Rhode Island would become the best tested state in the nation, at least for a while. On March 9th, I started a daily Covid-19 video-cast with Josh Fenton who runs a daily ezine called GoLocalProv. The mayors with whom I worked started begging the state for testing and respiratory clinic sites because we feared rapid transmission in our densely packed cities -- but it took almost two months to get most of that up and running.

In March, hospitalizations and deaths began to explode in Italy and in New York City. On March 6th, President Trump and Vice President Pence declared that there is adequate testing for all Americans. There wasn't. On March 7th, New York Governor Andrew Cuomo declared a state of emergency. On March 11th, Governor Cuomo closed state colleges. Italy prohibited commercial activity except for supermarkets and pharmacies. On March 8th, I proposed closing the schools in Central Falls but the city was asked to wait by colleagues in state government. On March 13th, Rhode Island schools were closed and the US shut down travel from Europe. On March 19th, the Italian Army deployed to Bergamo, the worst hit city, because local authorities

couldn't process the number of dead residents. On March 20th, Governor Cuomo finally put NY on pause. On March 22nd, the Italian Government finally closed all non-essential businesses and industries.

By March 24th, NYC had 25000 cases and 210 deaths.

In March, April and May, Covid-19 swept through New York, New Jersey, Massachusetts, Rhode Island and Connecticut. In June and July, Arizona, Texas, Florida and California got hit. Many people think there will be a second wave of outbreaks in the fall and winter of 2020 after kids go back to school. No one thinks this will go away until we have a vaccine and everyone prays that a safe and effective vaccine will be ready by January or February of 2021.

Remember those minivans that leave Central Falls every morning for factories all across New England? People in Central Falls went out to work every day because they had to – they needed to buy food and pay rent. Many of those people were told they'd be fired if they didn't show up for work. Many of those people got infected in the minivans or at work. Then they brought the infection home to their families, to the triple-deckers in which people live, four or six or eight or twelve people in a two-bedroom apartment, sharing one bathroom.

Before long, Central Falls, the poorest and most densely populated city in the state also became the most infected with a population incidence that dwarfed that in the Bronx.

In late March and early April of 2020, Emergency Medical Services reported to me that four people had died in their homes of what appeared to be Covid-19.

So sloth, selfishness and politics conspired so that we failed to stop the worldwide spread of Covid-19 which has killed a million people already. And is likely to kill many more.

It's easy to be a Monday morning quarterback, and perhaps we can understand and excuse errors which are apparent when looking backwards but might not have been so obvious in the moment. Perhaps. And, the argument goes, this virus was just too tricky to stop – so we didn't fail. We are just dealing with what's inevitable. Except. Except China – 85,403 cases; 4,634 deaths. Except South Korea – 23,812 cases; 413 deaths. Except Taiwan - 514 cases; 7 deaths. Except Hong Kong – 1,324 cases; 7 deaths. Except Japan – 82494 cases; 1557 deaths. Except Israel – 243,895 cases; 1553 deaths. Israel did really well until it opened its economy and all its schools in early May. Then it fell apart. Which meant 58 deaths per million at first. 169 death per million now. Except New Zealand – 1,836 cases; 25 deaths. Most of these places have fewer than 50 deaths per 1 million people. Some have fewer than 10 deaths per 1 million. Hong Kong had less than 1 death per 1 million most of the spring. Their outbreak got a little out of control in July and they've had 34 deaths all together. Now they have 5 deaths per million. The US has had 211,393 deaths so far and 638 deaths per 1 million, a number that is rapidly rising as we have now have over 800 -- and often more than 1000 -- deaths a day. More than 7 million Americans infected, the largest number in the world. Although we don't have the largest population in the world. Not even close.

Yes, the US is larger than most other countries. But not China. Yes, the US is a democracy. But so are Japan, South Korea, Taiwan, and New Zealand and until recently, so was Hong Kong – and Israel calls itself a democracy too. No, we can't believe China's numbers. But

they probably are only off by a factor of two or three. We *can* believe South Korea's, Taiwan's, Israel's, New Zealand's, and Japan's numbers. Hong Kong, Japan, Taiwan and South Korea reported cases before we had our first case in the US. They stopped it. We didn't. They had short shutdowns. We are likely to have rolling shutdowns for the next year or two which are likely to leave our economy and our sense of ourselves as one people indivisible in shambles. Inevitable? The experience, discipline and focus of many other countries says, *that just ain't so*.

What would our response have looked like if the U.S. had a health care system instead of a medical services marketplace? A health care system: a Ministry of Health, one organization responsible for protecting the health and safety of all Americans. Someone whose job it is to measure our health and to design and deploy the same set of services to all Americans, in every American community, so that every person in every community achieves optimal health, can function as a member of the community, can participate in the democratic process, and has the same opportunities and health outcomes as everyone else, regardless of race, income location, religion, educational level, language spoken at home or culture.

First, I'd like to think that we would have closed our borders on January 7th after Admiral Redfield heard his Chinese colleague in tears on the phone, or at least by January 23rd, when Wuhan locked down and there were already cases in 10 countries, including the US. I'd like to think that someone would have been paying attention to the huge number of travelers arriving from China and Europe every day and doing the math. Admiral Redfield, Director of CDC, seems like a very nice man, but he had no real public health experience and doesn't seem like the kind of man we should have chosen to run the CDC. In a real health care system, we would have

chosen someone like Tom Frieden or David Satcher, someone who has run a state or large city department of public health and feels epidemics coming in their bones, who knows when to move and how to move a recalcitrant government when there is a real public health threat.

Then, we would have had a standing army of public health workers and of clinicians – doctors and nurses and others –who we were able to move to the site of an outbreak at a moment's notice. We once had such a standing army – the Rapid Response Team (now called Rapid Deployment Forces) of the US Public Health Commissioned Corps – and it still exists, but it is much smaller than it used to be.[xiv] We would have had an inventory of ventilators and personal protective equipment and the legal authority and command and control responsibility to move health workers and supplies to the site of outbreaks like those in New York, Boston, Houston, Dallas and Phoenix. We would have and could have moved thousands of health workers and National Guard troops, like the Chinese did to Wuhan and the Israelis did to Bnei Brak, and shut down outbreaks when they occurred. Instead, we abandoned our cities, our colleagues and our fellow citizens as they became overwhelmed.

That means that outbreaks would have likely been contained if we had a real health care system even if cases slipped through our defenses and started community spread. That's what they did in South Korea, China, Japan, New Zealand, Australia and all the other countries that have successfully contained Covid-19. We could have geared up the nation, mustered all the resources needed, and revved up our collective technical, manufacturing and entrepreneurial zeal. Something like the WPA or the Marshall Plan. We put a man on the moon. But, sadly, we couldn't do this. We have the resources we need to stop the spread of Covid-19. We just don't have the organization, commitment, focus, and consensus needed. And we don't have a health

care system, consumed with the work of protecting the public's health. We have the water. But we still don't have a pump.

It's hard to know what we would have done about testing because the CDC's and FDA's testing failure was a function of leadership and the culture of those organizations. However, if we had a real health care system it is hard for me to believe that we would not have had widespread testing available in every state health department by the last week in January and widely available in the community by the end of February. If we had a real health care system, someone would have seen the need for widely available testing and someone would have been driving us to get there, instead of fiddling while Rome burned. Even more, we would have made testing free for all in every community, instead of selling a $6 test for $100, and devoting $30 billion of public money to yet one more income stream that will put public money into the pockets of insurance companies, pharmaceutical retailers, laboratory equipment companies and the venture capitalists who own those organizations. If we had a real health care system, there would be a primary care center in every neighborhood and community and every American would be able to get tested at the moment of first symptom and get isolated immediately, either at home or in an isolation hotel or hostel, if their house was too crowded or if there were elderly relatives living with them.

If we had a real health care system, we have recruited our best scientists to work with NIH, CDC and our great public universities to develop a vaccine, instead of encouraging them to get in bed with venture capitalist and hedge funds to create a farm team of little vaccine companies, looking to make a big fortune by moving public funds into private pockets. We'd already have entrained our vaccine manufacturers so they were set up to make 330 million doses quickly. We'd already have planned the distribution process so that the moment we have a

vaccine and know it is safe, we can distribute it to all Americans by supplying it free to all our primary care centers which could then make sure every single American was vaccinated. Instead, we have given out $10 billion in corporate welfare to a number of vaccine developers, spending more than $2 billion on at least two vaccine developers that have never successfully brought a vaccine to market. It's estimated that the vaccine will cost $150-500 per dose and will generate huge profits for the manufacturers because vaccines cost pennies per dose to produce.[xv] The nation may spend as much as $150 billion on this vaccine. The market value of those vaccine manufacturers (some of which have never successfully produced and marketed a vaccine) is now hundreds of millions or billions of dollars, so their investors have already made a huge amount of money on the public's investment in them. Some of that money will be used for lobbying to keep this process rolling. And we can only imagine what the real vaccine distribution system will finally look like: rich people will likely get it first, administered by concierge doctors in private offices or in the safety and comfort of their own homes, while the poor and people of color will need to risk infection as they stand on line and wait for hours to get vaccinated, the way we ask too many people in cities to stand on line to vote. So much for democracy. But boys and girls like beer.

President Trump announced Operation Warp Speed, to develop a vaccine, on May 15th. Of 2020. For a disease that had been killing thousands of Americans since March. Warp Speed? Or an alternative truth, a laughable but tragic attempt to rewrite history by traveling backward in time?

Finally, if we had a real health care system we wouldn't have had the economic and social chaos we have now or have to worry about the integrity of the 2020 election. We'd wear masks. There would have been three weeks of shutdown. But then life could have resumed. The

pain and hopelessness of isolation wouldn't have been nearly as intense. We'd still have to be careful until we got a vaccine but life as we've always known it could have continued. There would have been some shutdowns of isolated schools and workplaces in case of outbreaks, but shut-downs for three weeks, not two months. No one would be living in fear, alone. And we'd likely have thousands of fewer deaths. Maybe 100,000 fewer. Maybe even 150,000 fewer, by the time this was done. This didn't have to happen. But we let the genie out of the bottle and then we didn't have the cleanup squad to contain the huge mess that the genie made.

What else happened in the absence of a health care system? The market worked as it always does. There were winners and losers.

Hospitals spent billions preparing for Covid-19. But elective surgery, their bread and butter, evaporated. They will need and are getting huge government handouts. They've laid off nurses in droves but I haven't read about a single hospital executive who even took a pay cut.

Primary care clinicians and community health centers lost the bulk of their business. They had to switch to interacting with patients on the telephone and over the internet. Private practices and community health centers laid off employees. Their future is unknown. But all of a sudden, lots of big corporations – Wal-Mart and Walgreens and a bunch of hedge funds and venture capital firms - have entered this market, as people are betting that the era of the family doctor is over. Now that people are used to getting medical care over the phone, big national corporations can consolidate medical services, providing almost anything you need over the phone or over a video link from large centralized phone banks where they can exercise oversight and quality control.

At the same time insurance companies made out like bandits. Their expenses disappeared because people were afraid to go to the doctor or the hospital unless they were desperately ill but insurance companies kept earning premiums. Guess who will run the health care market of the future?

For-profit labs and medical device companies jumped into the testing market. Medicare pays $100 for a Covid-19 test that costs about $6 to make; private insurance pays as much as $2000! Some $30 billion will be spent on testing as public money moves swiftly into private pockets again like water gushing over a waterfall.

Vaccine manufacturers got $10 billion from Operation Warp Speed. Public money which will let them make $150 billion in profit. Not a bad ROI when the initial investment was all public funds!

Congress created a $2 trillion economic stimulus to get the nation though the shutdown. Where did that money go? 30 percent went to families. 25 percent went to big business. 19 percent went to small business. 17 percent went to state and local government and 9 percent went to public services. Included in that 9 percent was $100 billion which went to hospitals to replace the income from elective surgery.

But follow the money for a moment. 70 percent to big business and government. 30 percent to families. The 30 percent to families got used for food and rent, to tide people over until their next paycheck or an unemployment check. What happened with the rest? Much of the state and local government and other public services investment likely ended up in the hands of private contractors, because government rarely has the capacity to scale up services quickly. Who knows how much of the economic stimulus money landed in the pockets of the already

wealthy and who knows how much of *that* went to lobby congress for tax breaks and for a bigger piece of the next stimulus to come down the pike. That's the way this game in played in the US now. Boys and girls like beer a lot.

What, you might ask, happened in Central Falls?

For two months, the mayors of Central Falls and Pawtucket wrote letters to the Governor, called and lobbied for someone, anyone, to set up a respiratory clinic or a testing site or both in the two cities, because we were concerned about our densely packed population going out to work every day because many of them felt like they had no choice. I did my own share of quiet communication, talking and lobbying – but all to no avail.

In March, the state opened three National Guard run testing sites - one at a university in a rural area twenty-five miles away, one at a community college fifteen miles away, and one at a state college eight miles away. We were particularly concerned because the state's advice, to call your doctor if you get a fever or a cough and get your doctor to order a test, seemed almost irrelevant, because we knew that about 50,000 of the 92,000 people in the two cities did not have a family doctor and we knew that about twenty percent of households lacked access to private transportation. With no doctor and no car, testing and treatment was out of reach for the highest risk people in the two cities.

The State Department of Health, which had no ability to do testing or clinical care itself, encouraged others in the market to open respiratory clinics – safe places for clinicians to see people with coughs and fevers, places where doctors and nurses had enough personal protective equipment to care for patients safely. By the end of March, four respiratory clinics opened in a

wealthy suburb about 15 miles to our south. So for a period there were no respiratory clinics at all in the three largest most densely populated and highest risk cities in the state. But four for the worried well, who had very little risk of getting or spreading Covid-19..

Then the mayors kicked and screamed a little more and we got a respiratory clinic and then a testing site on the grounds of a closed hospital. Then the community health center at which I then worked opened a respiratory clinic and then a testing site but restricted both to its existing patients. That was good news for the 20,000 people who are its patients but bad news for the 50,000 people who had no family doctor and so couldn't get tested at either place.

What followed was three weeks of chaos. I ran some numbers and discovered that Central Falls had one of the highest rates of infection in the nation – higher than the Bronx and higher than Queens, which was then the epicenter of the pandemic in the nation and the world. I published that information which, I suspect, took many in the state by surprise. The Governor started talking about Central Falls at news conferences. A testing site was promised.

That testing site proved almost impossible to arrange. Three weeks were lost in complex negotiations while the disease burned through those triple-deckers. Finally, the mayors and I realized that help was not on its way, that if we wanted something done, we'd have to do it ourselves.

Which is exactly what we did. We brought the two cities together, along with many community organizations, and organized them into a structure called an Incident Command System. We created a four-language hotline. That hotline provided people without primary care, access to a primary care doctor over the phone so we could identify those who needed the hospital and get people with symptoms a test but also so that we could coach them into isolation.

We asked people in our communities to call us the moment they got a fever, a cough, any shortness of breath or lost their sense of taste or smell. We isolated everyone who had symptoms without waiting for a test. We got their families into quarantine, imitating the approach to outbreak control used by the Israeli government in Bnei Brak, a city near Tel Aviv which has twice the population of Central Falls and Pawtucket, that stopped an outbreak half as intense. We provided families with food, emotional support, masks, disinfectants, and cash if they were undocumented, so they could survive the period of isolation. We checked on household size and risk and got people who were the only case out of the household so they could recover without infecting their families. And remembering the principles of social mobilization used to stop Ebola in West Africa we involved the whole community in this effort so that everyone understood the value of masking, of social distance, and of calling us the moment they got sick. Then we called people again and again, to make sure they were safe to stay at home -- or got them to the hospital the moment they needed hospital-level care.

It worked. It took a month and a half but by the end of June we were finding just zero to two new cases a day, down from 100 new cases a day that been identified in the two cities toward the end of April. The stories from EMS about people dying in their homes stopped as soon as the hotline got up and running.

Central Falls has a brief resurgence in August, but we got that stopped by putting masked high school kids on the street to remind everyone to mask. We are looking at another resurgence in late September, which we hope to stop in the same way, by working with community people, and getting everyone involved.

What matters most for outbreak control? Not testing. Not contact tracing. Not news conferences. Not hospitals or ERs. Community matters for outbreak control and community matters for health.

So what we have here is a new disease that is related to the common cold, a disease that spreads like wildfire, a disease that is maddeningly hard to detect until it puts more people in the hospital than flu does, that doesn't make most people sick but is more likely to kill the old and kills some young people who get a big dose of the virus, that most young people don't care that much about but that has generated enough fear so that life shut down everywhere for a few weeks until people realized this just wasn't the black death. A new disease that sickened and killed more people of color and the poor because racism has worn out their bodies but also because they have to go out to work every day, and because our legal version of apartheid means that people of color and the poor get to live in crowded housing while many others live in luxury.

This was a disease that was spread by rich people but preyed on the poor. Something like capitalism.

Coronavirus showed us things about ourselves that were hidden in plain sight. When the schools shut down we learned that thousands of school children depend on the schools for meals and so schools put a tremendous amount of energy into keeping those meals coming, in addition to making the switch to on-line teaching. Who knew that millions of families in the US couldn't afford to feed their own children? When the virus threatened densely packed cities we learned that millions of people were living two to three or four people to a room. When the virus threatened homeless people and there was a chance that hospitals would get overwhelmed just

taking care of the homeless we learned that there are half a million homeless people on any given night in the US. When the virus attacked prisons we learned that there are 2.3 million people in prison or in jail.

When people of color were infected at two and three times the rates of white people we learned that centuries of racism had tracked those people into jobs that they couldn't do from home because of educations they didn't get. We learned that those centuries of racism meant the people who live close together because they are poor are too often people of color. We learned that the whole families who got sick at once were often people of color as well. At the same time, we learned that people of means had very little risk of dying from Covid-19, a reduced risk that had nothing to do with their skin color, and had everything to do with their skin color, both at the same time.

Did we cry out and rush to build better housing? When people of color got sick because their bodies were broken by decades of manual labor, stress and imprisonment, did we as a nation rise up and with one voice cry out for the need for equal lives and an equal experience? Or did we instead wait for the televised murder of one of those people, a murder so heinous that it was finally impossible not to cry out? Why?

When our public health care system failed to prevent this pandemic did we cry out for a health care system for the United States that is for people not for profit? Why not?

A visitor from outer space seeing us locked in our houses, with our faces hidden, our theatres closed, our musicians silent, and our legislatures afraid to meet, would guess that the Russians had come and we'd retreated -- that Big Brother had won. That visitor would see scant evidence of the vibrant chaotic democracy of our culture.

That's what this failure has done to us. We have lost too many lives and put too many other lives at risk or into hibernation mode.

But we've also abandoned something precious about ourselves - we've lost the confidence of one people, indivisible, who can stand together, to fight this thing, and win. We defeated Hitler. We stared down an aggressive Soviet Union. We put a man on the moon. But now we have surrendered to a virus, because of our selfishness, our shortsightedness, and our greed.

Beaten by a cold virus.

In May, voters in Wisconsin braved the pandemic to vote anyway and throw out a conservative Supreme Court judge. Eight people are said to have died from infections contracted on those voting lines. This summer, as candidates try to organize campaigns, Covid-19 is changing how campaigns are run. How many people will collect nominating petitions? How many people will knock on doors? How many people will meet candidates at county fairs and barbeques? As Republicans and Democrats spar over voting by mail, how will we even know if any election is free and fair while Covid-19 rules our lives?

And none of this was necessary or inevitable. It happened because of what the Chinese didn't do, because WHO was asleep at the wheel, because of what the President said and didn't do, because of what CDC didn't do, and because the United States doesn't have a health care system that cares for all Americans.

It happened, at the end of the day, because boys and girls like beer.

[i] Eventually we'd learn the case fatality rate is more likely 0.4 percent or less, or about four times that of seasonal influenza. Even so that's a scary number, because every human being, in theory is susceptible to the Coronavirus, which means all of us could get sick at about the same time. In theory, a city of 100,000 might have 10,000 people in the hospital in the span of a few weeks, about ten times the usual number. And 3000, we thought then, would likely die. By comparison about 5 percent of us are susceptible to seasonal flu each year. Even so, it kills 30,000 to 60,000 Americans every year. This means in that city of 100,000 people, likely 5000 people get the flu, and 500 people are hospitalized for it, and 5 die. Over the course of a year.

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