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## Unequal Impacts: Long-Haulers and Race in the Coronavirus

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# Unequal Impacts:

## Long-Haulers and Race in the Coronavirus

Written by Aaron Morales Dolich

Illustrated by Josephine Brane-Wright

CW: discussion of suicide

**M**ayra Ramirez is a 28-year-old Latina paralegal from Chicago. While she has a neurological condition that could suppress her immune system, she controls it with medication and is otherwise healthy. She contracted coronavirus disease 2019 back in April of 2020 and recounted her experience in an interview with Illinois Public Media.

Mayra went to the emergency room with low oxygen levels and was placed on a ventilator. What she thought would be a three-day stay turned into a six-week-long hell. She experienced nightmares, many involving her drowning, which she attributed to breathing difficulties. Mayra's family was told she might not even survive. But in June, the doctors suggested a life-saving measure: a double-lung transplant. Dr. Ankit Bharat, the Chief of Thoracic Surgery at Northwestern Medical, who operated on Mayra that month, said she was the sickest patient he has transplanted. Mayra was the first person to receive a double-lung transplant in the United States due to the virus. Since the operation, she is doing better but has to take various medications throughout the day to remain healthy. Mayra also faces at least a year of rehabilitation therapy before she can function independently. Mayra is a "long-hauler," a patient who still experiences symptoms for weeks or months after the initial infection. In Mayra's case, she experiences intense flashbacks and panic attacks because of her hospitalization. Most people with COVID-19 are not like Mayra, as they experience mild symptoms and recover within weeks. However, in severe cases where transplants are necessary, Dr. Bharat explains that age and other chronic conditions limit lung transplants' success. The damage potentially done to cardiovascular and neurological tissue makes SARS-CoV-2, the virus responsible for COVID-19, challenging to research, both in its treatments and its impacts on the human body. It will take time to know the full effect of COVID-19, but heart muscle damage and neurological problems are reason enough to take this virus more seriously.

In a news article for the peer-reviewed journal *Nature*, Michael Marshall reports that the virus can affect the body's numerous organ systems. Multi-system infection was initially ignored because, quoting Helen Su, an immunologist at the National Institute of Allergy and Infectious Diseases, "at the beginning, everything was acute, and now we're recognizing that there may be more problems." Long-haulers most commonly experience chronic fatigue, memory issues (widely referred to as "brain fog"), erratic heartbeat as well as psychological problems. There are few studies on the long-term effects COVID-19 has on the body, but given that it is primarily a respiratory disease, doctors have primarily examined the damage it does to the lungs. Dr. Ali Gholamrezaezhad at USC examined computerized tomography (CT) scans of 919 patients in studies and found extensive lung damage in the lower lobes. The majority of that damage is made up of scarred lung tissue, which makes it more difficult for oxygen to move from the lungs to the bloodstream, resulting in difficulty

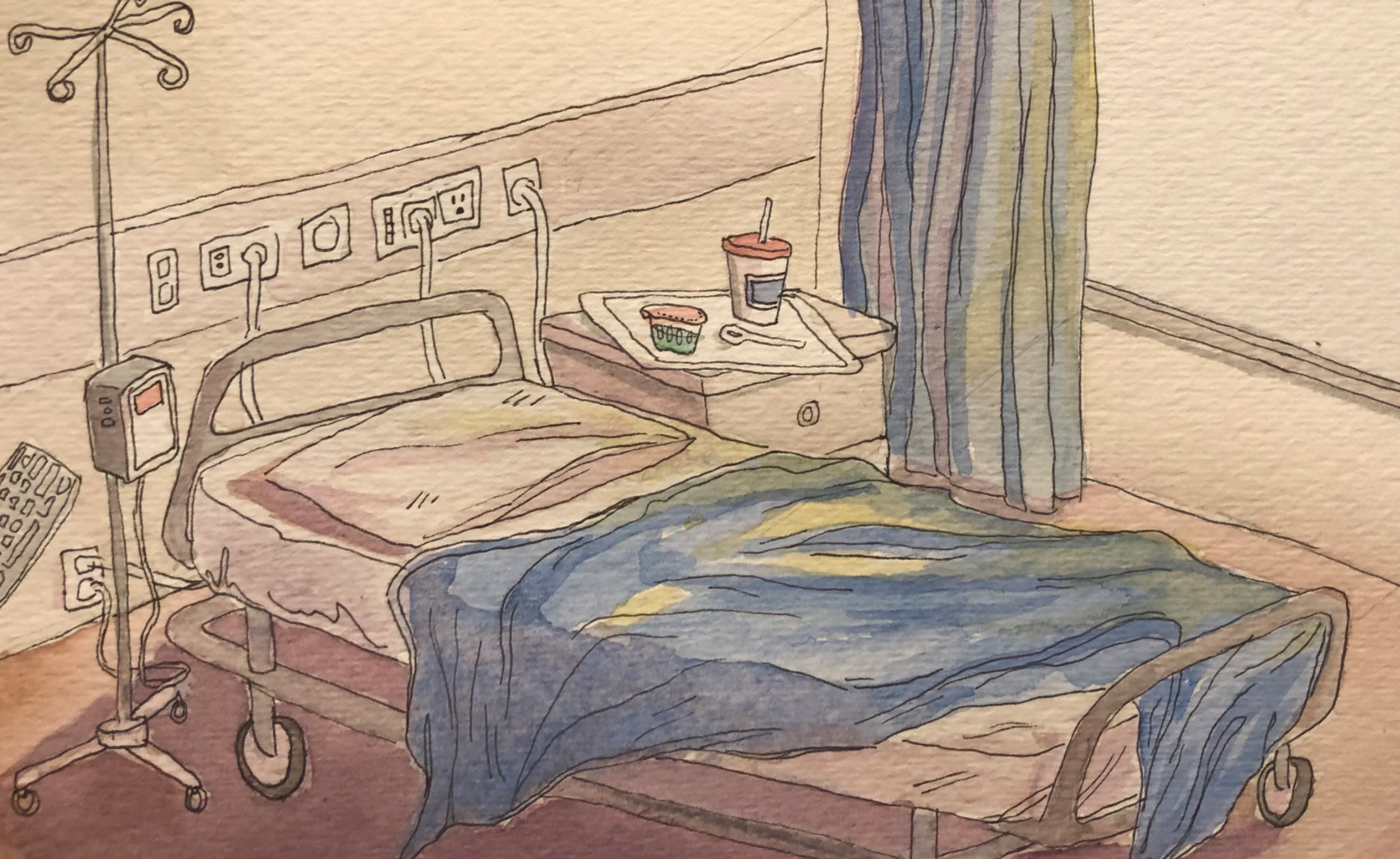
breathing. The visible lung damage typically reduces after two weeks and further lessens with time.

COVID-19 can impact more than the respiratory system, and scientists do not fully understand why. However, Marshall posits the virus' non-specific damage is due to the presence of ACE2, the protein SARS-CoV-2 uses to anchor itself and infect human cells, throughout the body. Plus, the virus can harm the immune system. Damaging the immune system can make a patient immunocompromised, observed with other common viral infections, or have the opposite impact: the immune system's overactivation. The latter tends to cause heart inflammation. The inflamed tissue progresses to cardiomyopathy, where the heart muscles become stretched. The damage impedes blood flow throughout the body and can lead to heart failure. Cardiovascular symptoms are not the only ones experienced, though.

When the blood carries the virus, it can travel to the brain, attacking the nervous system. Studies have also suggested that SARS-CoV-2 is neurotoxic, but it is not well understood how the virus crosses the brain's protective barrier. A study published in *Neurology* by Romeo-Sánchez and colleagues found neurological symptoms in COVID-19 patients, particularly hospitalized ones. They suggest this could be related to direct attacks on neurological tissue or indirect damage to neurons from cytokine storms, respiratory distress, or side effects of pharmacologic treatments.

Due to its deter multiple, COVID-19 can cause, a patient can be more affected than originally thought. Mayra faces at least a year of rehabilitation before she can return to her normal life. The impact in long-haulers goes beyond symptoms, though. Economically, long-haulers find it difficult to sustain employment due to fatigue and brain fog. Margot Gage Witvliet, epidemiologist and COVID-19 long-hauler, writes in *The Conversation* that the link between work and healthcare necessitates employment. Still, they could face job-loss contributing to mental health problems on top of the stress COVID-19 brings to people. The rise of chronically ill people is a concern for public health and the economy because they are more likely to face unemployment and severe financial difficulties, decreasing their probability of going to the doctor for health issues. Mayra herself remains employed, and her insurance covers some of the costs of her visit. However, she still owes tens of thousands of dollars in medical bills. Medical debt is ravenous in the United States, with many being unable to afford healthcare. Long-haulers are stressed about the uncertainty of their recovery, and their anxiety resonates throughout the United States.

These stressors brought on by the pandemic have caused a mental health crisis. The Centers for Disease Control surveyed Americans' mental health in late June, and the results are horrifying. 40 percent of U.S. adults report struggling with substance use or mental health issues. 11 percent of adults said they "seriously considered suicide" and that number jumps to 25 percent in adults aged 18-24. National Public Radio's (NPR)



Morning Edition cited these statistics, and stated that experts are concerned about teen suicide due to increased gun sales and social isolation amid the pandemic. From March to July, gun sales doubled. Whenever there is a 10 percent increase in gun sales in a state, the 10 to 19-year-old suicide rate increases by over 25 percent. It is clear COVID-19 has impacted mental health, but certain races and ethnicities experience the pandemic worse.

While many Americans face stress, an epidemic of mental illness, and financial difficulty from the pandemic, these are exacerbated in Black, Latino, and other communities of color. Ed Yong explains in *The Atlantic* how COVID-19 affects Black people more severely because of systemic racism. Since the Civil War, Black Americans were routinely denied healthcare due to what Yong calls "apportioning medicine more according to the logic of Jim Crow than Hippocrates." He discusses barring Black students from medical school, segregating hospital wings, and establishing the private, employer-based health insurance system. Latino communities are also disproportionately affected by the pandemic. NPR polling shows that 71 percent of Latinos in Los Angeles have experienced severe financial problems related to the pandemic. Job loss is the main contributor to this, despite their relatively high workforce participation rate in LA. The types of jobs (many deemed "essential") held by Latinos may be increasing their exposure to COVID-19. Latinos account for 60 percent of the cases and are experiencing a five-fold increase in coronavirus deaths compared to before May. This increased likelihood of infection and difficulty in accessing medical care puts Black and Latino populations at a higher risk of becoming long-haulers, exacerbating existing systemic barriers. Given increased conversations and protests about systemic racism and inequality, COVID-19 forces us to recognize the inequities

already present in the U.S. These inequities impact Americans to varying degrees, but the economic, psychological, and social unrest in 2020 forces us to ask questions about the U.S. political structure from the top-down.

The coronavirus pandemic has shaken the world and leaves infected people anxious about their prognosis. It is crucial to note that most people will not experience severe symptoms. The causes of severe cases are complex and entangled. While many will recover after two weeks, the cases of long-haulers and the mysteries surrounding their continued symptoms emphasize the importance of public health guidelines and medical care. Helen Su states the need for long-term studies to examine the effects of COVID-19 on patients. Currently, the working hypothesis is that long-haulers continue to have symptoms because of a multi-system infection from SARS-CoV-2. It attacks heart muscles because of the prodigiousness of ACE2 and can attack brain neurons by crossing the blood-brain barrier. Beyond symptoms, COVID-19 impacts the economic stability of long-haulers with medical debt and job insecurity from the recession. Stress about finances, prognosis, and isolation affect the general public, including long-haulers. Mental health problems are on the rise and need to be addressed along with the U.S.'s systemic inequities, including in the healthcare system.

There is good news, though. Mayra is recovering well and has invited her surgeon to go skydiving with her. Long-haulers can also find solidarity in support groups online, through Facebook, for example. If we recognize the collective damage COVID-19 does to our livelihoods, there can also be recognition of long-standing inequalities that mobilize people into getting them more rights. ● ● ●