## Why a shortage of ventilators should not be the take-away from COVID-19: The case for primary care

Deborah Edberg, MD, corresponding author
Assistant Professor
Rush University
Chicago, IL
Deborah edberg@rush.edu
773-636-5370

Santina Wheat, MD, MPH
Assistant Professor
McGaw Northwestern University
Chicago, IL
swheat@eriefamilyhealth.org

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One week after the shelter in place order I saw a 72-year-old patient in the office. He had a history of congestive heart failure that had been worsening over the last few weeks, with a plan for an angiogram that had been cancelled due to the pandemic.

"I'm having trouble walking around my apartment," he told me, visibly uncomfortable. He had gained 9 pounds in 5 days and I could hear fluid in the bases of both of his lungs. His legs were so swollen he could not get on his regular shoes and was wearing soft slippers. Fortunately his oxygenation level was still good and he had no fever, cough or other potential signs of COVID-19. I did an EKG, which was normal, and, in consultation with his cardiologist, I altered some of his medications and sent him home with a scale and a blood pressure cuff. Two days later we spoke and his weight had come down 2 pounds. I changed his medications again and 2 days later he was back to his baseline weight and was much more comfortable.

This patient is considered to be high risk for mortality if he were to contract the corona virus. We live in a city likely to become a hot spot and if he had chosen to go to the ER instead of our office he could have been exposed and was at high risk for rapid decompensation and could easily have ended up on a ventilator with poor chances of survival.

Prior to the COVID-19 pandemic, the healthcare system in the United States was already failing the general public in a multitude of ways. According to the 2018 Census, we have over 27 million people uninsured in this country with an even greater number underinsured with poor access to primary care. Medical costs for individuals are astronomical even with insurance, and studies indicate up to 62% of bankruptcies in our country are informed by medical costs (1), while at least 26% of Americans report they are struggling to pay medical bills (2). This amounts to 52 million people. Yet even with the excessive cost of care, we are still rated #27 globally for health care outcomes.

We know that access to primary care improves health care outcomes and decreases cost to the health care system overall. People with access to a primary care physician have decreased hospitalizations, fewer visits to the ER and a decreased need for surgical interventions (3). These numbers look even more dramatic for underserved, marginalized and historically oppressed populations (4). Community health centers, with their comprehensive wraparound services, have been shown to have better health outcomes at a lower cost for people with multiple chronic illnesses coupled with complex social issues (5). However, many community health centers are currently struggling to stay open due to the financial impact of COVID-19, with many resorting to layoffs, paycuts and reducing vital services.

The pandemic has laid bare some of the worst aspects of our health care system. People who are stricken with COVID-19 who do not have insurance, if they survive,

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will walk away with mountains of medical bills they can't hope to pay. People with unstable housing or in crowded housing situations are most at risk and most likely to contract the illness. Health disparities among economic and racial divides are playing out in the pandemic as much as or worse than they do in non-emergent times. We have already seen the data that the African American population is contracting and suffering from COVID-19 at astounding rates. If and when we see a need for rationing of care, we will surely see the impact of bias as well.

The foundation of healthcare in this and every moment are the primary care physicians. Our role in keeping high-risk patients out of the hospital, out of the emergency rooms and out of risk of infection is a critical step in allowing for the acute settings to manage the critically ill in a sustainable way. We are the team that manages the high-risk chronic illnesses to prevent acute exacerbations that divert resources away from COVID patients and also give those patients a better chance of survival if they are to become infected. We are the first line to triage the sick, keeping them away from the hospital and the ER until they absolutely need to go. There is some evidence that much of the initial spread of the virus in Wuhan was due to a lack of primary care infrastructure, which resulted in people crowding into ERs trying to get tested, enabling rapid spread the disease. It is the primary care providers who are able to first implement recommendations of our public health officials and the ones that will implement the vaccine once it finally becomes available.

It is primary care that is the sustaining backbone of our healthcare system, and supporting and enhancing this workforce must be the end message when the dust settles and we are through the worst of this time.

Current news regarding health care during the COVID-19 pandemic has focused. rightly, on the immediate and dire need for more critical care workers, appropriate PPE, hospital beds and ventilators. This is an emergent need, and it should be a priority to get those resources made and distributed appropriately. We must remember, however, that we did not have a shortage of ventilators, critical care providers or PPE before this pandemic hit. The message at the end of this should not be that we should have more of these resources at the ready in "normal" times. This illness happened to be one that affects the respiratory system requiring specific types of equipment, protective gear and medication. The next one may have different requirements. Critical care is the last line of defense in healthcare and is only strained to its breaking point due to a dramatic failure of leadership at the outset. Firing the pandemic team, removing the scientists with the expertise to recognize, assess and contain the illness, refusing the testing kits from the WHO, limiting the testing capacity, failing to acknowledge the immediate need for screening, isolation and social distancing all were the barriers to the containment and mitigation strategies that could have prevented the current situation. Failing to implement strategies to ramp up the necessary equipment for treatment and protection was the final piece that destined our incomprehensible loss of lives.

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Assuming that we as a country make better decisions regarding our leadership in the future, the conversation must turn back to what really needs to change in our healthcare system moving forward. At the forefront of that conversation must be the ongoing issues that have plagued our system throughout: primary care, health disparities and payment reform. We need to ensure that we develop our workforce to have sufficient numbers and training for primary care, we must have payment systems that are able to support them, and we need to develop methods to ensure access to primary care for our entire population.

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