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Pandemic: The Coronavirus is Here to Stay For Now

Malkie Rubin

Over the past two months, the COVID-19 coronavirus outbreak has spiraled out of control. Increasingly, people outside of China, where the virus originated, have started to display its symptoms. In response, countries around the world have imposed travel bans, quarantining millions and isolating hundreds of sick people in an attempt to stop the spread of the new virus. However, as of Feb. 23, 2020, there were 78,000 cases [1] of COVID-19 in at least 29 countries, including a spike of cases in Italy, Iran and South Korea, as well as an ongoing outbreak on a cruise ship off of Japan. We are likely facing a pandemic or may already be experiencing one. The World Health Organization (WHO) Director-General Tedros Adhanom Ghebreyesus said [2], “Our window of opportunity [for containing the virus] is narrowing so we need to act quickly before it closes completely.”

Other public health experts think [3] that the window has already closed. They fear that new developments in this outbreak suggest that containing the virus may no longer be possible. Anthony Fauci, head of the National Institute of Allergy and Infectious Diseases, remarked [4] that once several countries have widespread transmission, spillover into other countries is inevitable. One of the top officials at the Centers for Disease Control and Prevention warned Americans on Feb. 25 that health experts foresee the novel coronavirus that has killed [5] thousands spreading in the United States. “We expect we will see community spread in this country,” said Dr. Nancy Messonnier, director of the CDC's National Center for Immunization and Respiratory Diseases. “It's not so much a question of if this will happen anymore, but rather more a question of exactly when this will happen and how many people in this country will have severe illness.” On Feb. 25, Trump put [6] Vice President Mike Pence in charge of the Coronavirus response.

Public health officials must accept the fact that the coronavirus has already spread, and need to move into a new phase of preparing for a pandemic.

What makes the coronavirus so contagious is that it spreads by human to human transmission, just as easily as the flu. As a result, once a few humans become infected with the virus, the chances that others will come in contact with an infected person increase rapidly. Symptoms of the coronavirus include coughing, fever and shortness of breath. At this point, the outbreak could continue spreading at a rapid pace, moving into new regions and across the

globe quite quickly, given the increasing mobility and travel within and between societies today.

As of Feb. 23, there have been more than 1,800 reported cases [7] of COVID-19 outside of China in at least 29 countries. South Korea has now reported the most cases of the coronavirus outside of China, with 602. The country's president, Moon Jae-in, has put South Korea on its highest level alert over the outbreak, giving cities the ability to impose their own containment measures. Italy is also “now home to the biggest COVID-19 outbreak outside of Asia.” So far, 132 people have confirmed infections, including at least two deaths. Italy has imposed severe measures [8] to try and stop the spread of the virus. Sporting, religious and cultural events are being canceled as well as university classes. Many people have been fined if they tried to enter or leave areas where the outbreak is present, including 11 towns in the Lombardy region.

There are many reasons as to why we may soon see a rapid rise in infections. One is that the virus is very contagious and some people can infect others before they start to show symptoms or very early in their illness. Researchers currently believe [9] that one infected person generally infects two to more than three others, which would make the COVID-19 more contagious than other coronaviruses like Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS). When people began to show symptoms of the SARS virus, they were immediately isolated, and those they were in contact with were traced and isolated, leading the virus to be contained. However, since the spread of COVID-19 is similar to how influenza spreads, it is very hard — if not impossible — to trace every single person that an infected person had been in contact with and quarantine them before they spread the virus.

Another reason the coronavirus is turning into a pandemic is that countries are still only looking for the disease in people who have traveled from China. But the virus has already spread beyond this region. Diagnostic testing should be conducted on citizens from other countries, including Iran, Italy and South Korea. Even though the U.S. Center for Disease Control and Prevention (CDC) maintains [10] that the risk of spread of the coronavirus is low, it is beginning to change its screening strategy to look for people with the virus who are not necessarily traveling from China. The CDC will begin to

use the national flu surveillance tracking infrastructure to test patients who have flu symptoms for COVID-19 in five cities across the United States.

Currently, the coronavirus has a very low fatality rate, namely, around 1 to 2 percent. However, that small percentage can cause many deaths if COVID-19 continues to spread around the world. Public health experts say [11] that countries need to move from trying to contain the virus to mitigating its harm through reducing the spread by teaching people proper hygienic practices and caring for the very sick. Recent outbreaks in Germany, France and the U.K. demonstrate that high-income countries with advanced medical resources may be able to control the virus spread, at least for now. However, as the virus moves around the world and there are increasingly more infections, even high-income countries are likely to struggle with containing the virus. We have to prepare for this and quickly, for a pandemic that could spread across the world.

However, our systems are better prepared to protect than ever before. Although the CDC does not currently recommend the use of face masks for the general public, they recommend that the sick or non-hospitalized patients under investigation wear masks when around other people. Health care personnel should wear personal protective equipment (PPE), including respirators, when caring for confirmed or possible COVID-19 patients. As of now, the possibility of contracting the virus in America is still very low. The best way to prevent contracting the virus would be to maintain proper handwashing hygiene, avoid traveling outside the country — especially to China — and for people to cover their mouths when they cough. These safety precautions can minimize risk if the virus starts to spread throughout the United States; following them is the best way to protect you and your family from the coronavirus.

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The Obesity Epidemic: Trends and Reactions

Avigail Goldberger

Many people — college students surely well-represented among them — are familiar with the feeling of pinching what they perceive to be an extra roll of fat around the waist and wondering where it came from. Shapes, weights and body types have no bearing on a person's beauty and worth, even though they unfortunately influence that same person's self-image and self-confidence in unfairly significant ways. The rising concern of the obesity epidemic, however, steps away from the realm of judgments or personal criticisms and moves into the conversation of an objective health crisis. William Dietz, the former Director of the Division of Nutrition and Physical Activity in the National Center for Chronic Diseases Prevention and Health Promotion at the CDC, commented [1] back in a 2002 Web MD article, "The American public still views obesity as a cosmetic problem. The challenge is to get the public to recognize that this is a health problem and it's one that they can do something about." This problem holds just as true today as ever before.

Obesity is clinically defined according to body mass index (BMI), a value obtained by dividing one's weight (in kilograms) by the square of one's height (in meters). A person with a BMI of 25-29.9 is considered to be overweight, while obesity is characterized by a BMI equal to or greater than 30. According to a 2017 CDC data brief [2], obesity rates in the U.S. in 2015-16 hovered around 39.8% among adults age 20 and up, exceeding the 18.5% recorded among children between the ages of 2 and 19. While the prevalence of obesity is and has long been undoubtedly greater among adults as compared to children, the prevalence among both age groups has demonstrated a comparable and significant trend toward elevation since the obesity epidemic was first identified in the late 1990s. An alarming 2019 report published by Zachary J. Ward and colleagues in the *New England Journal of Medicine* [3] predicts that within the next 10 years, obesity rates may spike to nearly 50% of the adult American populace.

Why, though, has obesity risen to the spotlight as a major public health concern? For those who insist that obesity is more than a simple cosmetic problem, what catastrophic consequences do they foresee on the horizon, and why can't the issue be tackled on an individual, case-by-case basis? With the steady climb in obesity rates, the

medical community has observed [4] accompanying climbs in related conditions such as Type 2 diabetes, coronary artery disease, certain associated cancers, and other negative health outcomes. In 2002, James O. Hill, then Director of the Center for Human Nutrition at the University of Colorado Health Sciences Center, addressed [5] this concern. He voiced the fear that dealing with the consequences of the surge in obesity-related diabetes alone "will break the bank of our healthcare system." In other words, Hill and other like-minded professionals worry that the obesity epidemic will segue into a drastic increase of disease that our current healthcare system will not be able to handle — both in financial terms and in terms of our technical treatment capacities.

Between 2005 and 2010 alone, annual adult obesity healthcare expenses nationwide spiked by 48.7%, reaching a staggering \$315.8 billion. If the recent trajectory continues unabated, there will be too many people needing too many treatments and not enough resources to provide the care they need. People may feel personally wounded or criticized when told they are obese, as the issue is closely tied to body image and is therefore sensitive by nature. Nonetheless, while it is important to always maintain respect and consideration, fear of offending people's sensitivities must be held at lesser importance than the need to save people's lives and health. According to Dietz, "The focus needs to be on environmental and policy solutions rather than individual behavior change. Because it's changes in the environment that caused this problem and it's changes in the environment that will solve it." Experts in his camp feel that if we deal with cases of obesity on the small-scale, individual level, treating the obesity-related health outcomes as they arise, the battle will already be lost. The only effective stance to take is to work preventatively on the macroscopic level.

Almost everyone, laypeople included, would agree that diet and exercise are the twin pillars that contribute to the maintenance of healthy weight. But the issue is more complex than a matter of whether individuals are theoretically aware of what choices *should* be made. This complexity is underscored by the socioeconomic and ethnic trends that characterize the distribution patterns of the obesity epidemic. On the most basic level, the CDC has observed [6] that men and women with college degrees are

less likely than their lesser-educated counterparts to be obese. It is critical to note that education and income are closely linked; individuals who come from backgrounds of poverty may be struggle to afford or obtain college educations, and those with limited education may struggle to secure higher-paying employment. Certain minority ethnic groups also demonstrate greater obesity rates. For example, African American and Mexican American women seem to be at greater risk. Culture, economic class and community structure may influence these ethnic patterns [7].

Knowledge of appropriate health behaviors is evidently only a piece of the larger battle. Those with limited economic resources will inevitably opt for cheaper food options, which tend to be higher in fat and sugar. These individuals also may seek low-rent housing and therefore tend to congregate in neighborhoods with lower community safety standards; children in such neighborhoods may not be allowed to play outside as much as they would be in safer areas, leading to reduced physical activity that creates bad habits during their formative years. Life circumstances play a significant role in guiding lifestyle choices and should not be underestimated.

The obesity epidemic may seem overwhelming, but there are practical measures that can be instituted at community-wide and even national levels to combat its reach. CDC recommendations [8] include efforts such as early childhood education to establish healthy behaviors or the creation of what they call “healthy community food

environments” by providing economic incentives for businesses to make healthy changes. At the end of the day, it will always come down to the individuals to make the right choices — but it is society’s responsibility and in society’s best interest to facilitate the best arena for these choices.

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The Flu Vaccine: Fighting Complacency with Convenience

Avigail Goldberger and Rachel Retter

The availability heuristic is a mental shortcut which allows us to dwell on fears that are statistically less likely to hurt us than ones we ignore. For example, a person may feel more anxious on a plane than in a car, even though more people die every year in car crashes than in planes. In a similar vein, while much recent media attention has been devoted to documenting anti-vaccination groups with regard to the measles virus, flu vaccination rates have not been as frequently discussed. Of course, the potential dangers of a measles outbreak are not to be minimized. But the fact remains: tens of thousands of Americans die each year of the flu according to the CDC [1] while thankfully, no measles deaths have been recorded in the US since 2015 [2]. In fact, according to a survey conducted by the National Foundation for Infectious Diseases (NFID), 60 percent of Americans “[agree] that flu vaccination is the best preventative measure against flu related deaths and hospitalization.[3]” Despite this, the CDC reports that less than half of Americans [4] get the flu vaccine in any given year; it is even possible, based on data from recent years, that this number could be on the decline.

Because college students represent the up-and-coming members of society, public health workers often turn to college campuses to investigate and initiate change regarding critical health attitudes. In a 2017 survey conducted by the NFID, 70 percent of college students in the US reported that they believe it is important to get an annual flu vaccine, while only 46 percent stated that they typically get vaccinated.

Among reasons cited for not getting vaccinated [5] were doubts surrounding its efficacy, confidence in one’s own health, needle aversion, financial hesitations, and fear of side effects. While several of these reasons account for the percentage of the population who do not believe it is important to get vaccinated, others provide insight into why people may believe it is important yet still fail to vaccinate. In other words, there are two necessary avenues of attack to increase flu vaccine participation — educating those who see no reason to get vaccinated and facilitating a more comfortable and convenient vaccination process for those who are merely reluctant. Along these lines, the NFID concluded that some likely ways to increase participation might include decreasing the financial burden and offering small tangible benefits, such as food or monetary incentive.

In September 2019, Yeshiva University's chapter of UAID (United Against Inequities in Disease) provided free flu shots right on the Beren and Wilf campuses to students who

presented health insurance information. One student commented that the nurses from Rite Aid were “so incredibly nice, assuring me that it would barely hurt — and it was true!” The student added that they even gave out small chocolates at the event. Surveys distributed to the students who partook in the event provided insight into flu vaccination trends of some of the Yeshiva University student population.

Out of the 111 participating students (approximately half female and half male), 95 percent believed that it is important to get a flu vaccine, and 41 percent had been sick with the flu before. However, 26 percent said that they did not receive a flu vaccine last year, and 21 percent said that if free flu shots were not offered on campus, they would not have gotten vaccinated.

Students’ responses varied in regards to why they may have gone a year without getting a flu vaccination. Among those who reported missing a year of vaccination in the past, the largest percentage (31.5%) said that it was because “there was no convenient way to get a flu shot.” Others (11%) responded that they “didn’t feel the need.” Less than one percent avoided it, respectively, because of fear of side effects, discomfort surrounding needles, or belief that it does not work.

It seems that, at least in the population surveyed, the main obstacle towards students getting vaccinated is not wariness or fear. Rather, it is a lack of sufficient motivation, comfort, or convenience that drives lackluster flu vaccine participation. Of course, this survey population was limited to those who attended the 2019 flu shot clinic and therefore will not be representative of global student attitudes, whether at Yeshiva University alone or in the broader US college student population. Specifically, it would likely not represent the attitudes of students with pre-existing strong opposition to flu vaccinations.

Flu shot clinics such as the ones organized on the Yeshiva University campuses this fall represent a significant stride toward addressing the element of convenience, both in terms of monetary relief and logistical ease. In order to find out if objections to the vaccine itself exist within the overall YU population and to investigate the nature of these hesitations, a more widespread canvassing could be conducted. This would provide insight into whether the student body could benefit from an educational initiative to combat misconceptions about the flu vaccination. It is critical to seek an understanding of our health behaviors and attitudes, so we can implement

appropriate changes that will move us forward in a positive direction.

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