

2021 Intramural Emory Global Health Case Competition

Pandemic PTSD: Addressing the Mental Health Crisis of Health Care Workers in the Time of COVID-19

The Emory Global Health Institute Student Advisory Committee

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All characters described within the case are *fictional* and bear no direct reflection on existing individuals. The case background and history, however, are meant to portray an accurate representation of the current environment in which health care workers at Phoebe Putney Memorial Hospital work and the current mental health challenges that they face due to the impact of COVID-19. The case scenario is complex and does not necessarily have a correct or perfect solution, and thus encourages a judicious balance of creative yet perceptive approaches. The authors have provided informative facts and figures within the case and appendices to help teams. The data provided are derived from independent sources, may have been adapted for use in this case, and are clearly cited such that teams can verify or contest the findings within their recommendations if it is pertinent to do so. Teams are responsible for justifying the accuracy and validity of all data and calculations that they use in their presentations, as well as defending their assertions in front of a panel of knowledgeable judges representing the Dougherty County Health Department during the final-round of the competition.

Introduction

Dr. Cameron is a 54-year-old doctor working at Phoebe Putney Memorial Hospital in Albany, Georgia, which is located in Dougherty County. The coronavirus outbreak that became widespread in the United States in March 2020 has now spread to every state in the country. This translates to an overload of patients and work as well as increased health risks for healthcare workers such as Dr. Cameron. The number of patients Dr. Cameron sees per week has almost doubled over the past month, and she is required to work additional clinic hours each week.

Dr. Cameron is an infectious disease specialist and has experience in many different emergency and epidemic settings, including working in Liberia in 2015 during the Ebola outbreak. The similarities between the COVID-19 pandemic in Albany, Georgia and Dr. Cameron's experience in Liberia are exacerbating her PTSD (Post Traumatic Stress Disorder), with which she was diagnosed upon returning from Liberia. She is not sleeping well due to nightmares and is anxious about returning to the hospital each day. Dr. Cameron feels estranged from her family members and friends because they do not understand what she is going through, and she is extremely worried about exposing them to the virus by being a carrier. As a Black woman, Dr. Cameron also experiences trauma from regular reports of racism against her community, particularly the nationwide reports of police violence against Black Americans, as well as the disproportionate toll that COVID-19 is taking on Black and Hispanic communities compared to the general population. Dr. Cameron is embarrassed about her mental health struggles and is worried that her colleagues at the hospital will think less of her if she seeks help.

During news coverage of how the pandemic is being handled at the hospital, Dr. Cameron collapsed in the background due to her exhaustion. This footage caused the Dougherty County Health Department to develop a plan to address the needs of healthcare workers

and find a solution to ensure they are not adversely affected by and are treated for mental health problems that develop due to the COVID-19 pandemic.

Case Prompt

The Dougherty County Health Department has received a \$750,000 grant to address the mental health needs of doctors, nurses, and other healthcare providers, specifically addressing anxiety, depression, and PTSD. To determine the best course of action, the department has published an open request for proposals for a strategy to address the poor mental health among healthcare workers in the county as a result of the COVID-19 pandemic. Multidisciplinary teams are invited to apply and pitch their suggested program to the Dougherty County Health Department. Emory student case competition teams will play the role of these multidisciplinary teams.

Teams are asked to propose an 18-month program that includes two parts: 1) a six-month emergency response to the high rates of anxiety and depression among doctors and nurses caused by COVID-19, and 2) a year-long pilot program to begin after the completion of the emergency response to prevent and treat mental health conditions among doctors and nurses beyond the pandemic. Teams are free to partner with any hospitals, clinics, and organizations in Dougherty County that they feel will be the most effective, but the Health Department is looking for a proposal that reaches the highest number of practitioners and takes into consideration the mental health disparities and inequities experienced by Black Americans, since a large percentage of healthcare workers in Dougherty County are Black.

Background Materials

[COVID-19 in Dougherty County, GA](#)

Within the past year, the impact of the coronavirus disease of 2019 (COVID-19) pandemic, caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), has been felt

throughout the world. COVID-19 is a highly contagious respiratory disease that is spread through respiratory droplets produced by talking, sneezing, coughing, singing, or breathing. The most common symptoms are fever, cough, and fatigue. The severity of the disease can range from very mild to severe, and individuals who are older or have certain medical conditions (including but not limited to asthma, heart disease, and cancer) have a much higher risk of serious illness from the disease.¹ COVID-19 has put a strain on hospitals in the United States, where hospitals are running out of equipment, both personal protective equipment (PPE) for healthcare workers (HCWs) and necessary equipment for treating patients. Hospital staff are overworked and overwhelmed.²

The impact of the pandemic has been particularly strong in the state of Georgia in the United States. As of mid-January 2021, Georgia has over 718,532 confirmed cases, 11,801 confirmed COVID-19 deaths, and 48,385 hospitalizations of confirmed COVID-19 cases. In addition to these confirmed cases, Georgia has had 148,379 probable cases, which are cases found using an antigen test, and 1,449 probable deaths, meaning individuals with COVID-19 symptoms and known contact with a COVID-19 positive individual but did not have a positive test themselves.³

Dougherty County, a small county located in the southwestern region of the state, has dealt with a particularly bad outbreak. Dougherty County had one of the largest outbreaks in the country early in the pandemic. Many attribute the high rates of COVID-19 cases in Dougherty to a super spreader event that occurred in the county seat of Albany in late February, prior to the arrival of COVID-19 in many cities in Georgia. More than 100 people had gathered in Albany's Martin Luther King Memorial Chapel for the funeral of Andrew Jerome Mitchell, a retired janitor. An Atlanta-area man who had traveled for the funeral reported to the hospital right after complaining of shortness of breath. By April 2020, Dougherty County had the second highest number of confirmed cases in the state, only behind Fulton County,⁵ the largest county in Georgia.

During the COVID-19 pandemic, the healthcare systems in Dougherty county faced significant staff shortages, pushing programs to recruit foreign nurses as well as student

nurses. Nurses were forced to work 12-to-18-hour days with limited access to improper PPE, and at one point, nurses were urged to come to work even if tested positive, as long as they were asymptomatic.⁴ The early outbreak in Dougherty County put immense strain on the HCWs in the area.

Mental Health Conditions

The American Psychiatric Association states that mental illnesses are “changes in emotion, thinking or behavior (or a combination of these)” and “associated with distress and/or problems functioning in social, work, or family activities.”⁶ The impact of mental illnesses has been a growing concern globally, as it has consequences on both an individual and collective level. Today, mental health disorders are one of the biggest contributors to the global burden of Disability-Adjusted Life Years (DALYs). For example, using the DALY metric, depression is the second leading cause of morbidity and mental health conditions contribute to 7% of the global burden of disease.^{7,8}

Some of the most common mental illnesses include anxiety, depression, and PTSD. While anxiety can be an expected part of life when experienced occasionally, anxiety disorders are characterized by symptoms that increase in severity, do not go away, or interfere with daily activities. Generalized anxiety disorder is when a person experiences symptoms about a number of things most days for at least six months. These symptoms can include being easily fatigued; feeling restless, wound up, or on edge; having trouble concentrating; difficulty controlling feelings of worry; or having trouble sleeping. Other anxiety disorders include panic disorder, when a person has recurrent panic attacks, and phobia-related disorders, when a person has an intense fear of a specific situation or object that is out of proportion to the actual danger present.⁹

Clinical depression is a mood disorder that affects daily activities like sleeping, eating, or working. Symptoms include a persistent sad, anxious, or “empty” mood; feelings of hopelessness or pessimism; loss of interest in hobbies or activities; decreased energy; appetite or weight changes; trouble sleeping or oversleeping; thoughts of death or suicide;

and aches and pains without a clear physical cause. For a diagnosis of clinical depression, symptoms must be present for at least two weeks.¹⁰ Depression can be caused by a combination of biological, genetic, and environmental factors and exposure to traumatic or stressful events.¹¹

PTSD is a disorder that develops in people after experiencing a shocking or scary event, which causes them to feel stressed or frightened even when they are not in danger. Symptoms include re-experiencing symptoms (flashbacks, bad dreams, or frightening thoughts), avoidance symptoms (avoiding reminders of or thoughts and feelings related to the traumatic event), arousal and reactivity symptoms (being easily startled, feeling tense, difficulty sleeping, or angry events), and cognition and mood symptoms (trouble remembering key features of the traumatic event, negative thoughts or feelings about oneself or the world, distorted feelings like guilt or blame, or loss of interest in enjoyable activities).¹²

Mental Health for Healthcare Workers (HCWs)

The COVID-19 pandemic has had a significant impact on mental health across all populations and particularly among HCWs. Many HCWs suddenly found themselves in high-pressure environments with long working hours, increased exposure to trauma, loss of colleagues, and unprecedented circumstances. In addition to caring for patients in such extreme settings, these HCWs are also at an increased risk of infection, and as a result, risk the lives of their loved ones. Many of them must deal with moral dilemmas both in regard to the delivery of care at the hospital and in protecting their families at the expense of other lives. According to current literature, the aforementioned factors are likely to increase the mental health burden of HCWs leading to mental health concerns such as depression, anxiety, and post-traumatic stress disorder.¹³ Data show that these stressors either lead to the development of new mental health conditions or/and the exacerbation of pre-existing ones. The mental health implications of COVID-19 are predicted to have both short- and long-term impacts.¹⁴

Studies examining past pandemics and the current one have identified variables that serve as risk or resilience factors for HCWs. A study looking at PTSD symptoms across HCW during the SARS 2003, MERS 2012, and current COVID-19 outbreak found several variables that affect the mental health of HCWs, including exposure level, working role, job organization, quarantine, age, gender, marital status, social and work support, and coping styles.¹⁵ Researchers have identified both sociodemographic (gender, age, profession, place and department of work) and psychological variables (self-efficacy and poor social support) associated with increased anxiety and depressive symptoms among HCWs during the SARS 2003, MERS 2012, and the current COVID-19 outbreaks.¹⁶ COVID-19 can also independently act as a risk factor for stress in HCWs.¹² In addressing the mental health needs of HCWs, it is crucial that these variables are taken into consideration for all interventions and efforts made to build resilience and reduce adverse mental health conditions.¹⁵

The term “burn out” has been used often since the start of the pandemic to refer to healthcare workers who are quickly being overworked. This phenomenon is common in Georgia as hospitals are becoming overcrowded and remain understaffed.¹⁷ However, despite this burnout, doctors and nurses are urged to continue working and can remain hesitant in taking the mental health breaks that they might need.¹⁸ It is also important to recognize that frontline healthcare workers were frequently referred to as “heroes” by family, friends, and the media in the beginning of COVID-19.¹⁹ This is a complicated rhetoric that added to healthcare workers’ stress on top of the existing anxiety surrounding working in a hospital during a pandemic.²⁰

Mental Health in Georgia

In Georgia, rates of mental health mirror those found nationally. An estimated 18% of Georgia adults experienced mental illness in 2020. Of these adults, 64.9% did not receive treatment. According to Mental Health America’s *State of Mental Health in America*, Georgia is ranked last in access to mental healthcare (meaning it provides the least access to insurance and mental health treatment in the United States).²¹

Georgia is home to a number of community organizations centered around cost-effective mental health resources, most of which are located in the urban areas of the state, especially Atlanta and Savannah. Some of these organizations include the National Alliance on Mental Illness (NAMI), The Carter Center, and Mental Health America (MHA) of Georgia.

Dougherty County, GA

Dougherty County, located in Southwest Georgia, has an estimated population of around 87,956, with 71.0% of that population being Black, followed by 24.3% of the population being solely white and 3.1% of the population being of Hispanic or Latino origin. The remaining 1.4-1.6% of the population is comprised of Asians, American Indians and Alaskan Natives, and Native Hawaiians and Pacific Islanders, in that order of population. More than half of the population is between the ages of 18 and 65 (53.3% or 59.9%) and female (54%).²²

Dougherty County has approximately 34,780 households with an average household size of 2.5 persons per household. The median household income is \$37,633 with 29.5% of the population below the poverty line. 82.2% of households have computer access and 71.8% of the households have a broadband Internet subscription. 82.5% of the population has graduated from high school with 21.4% obtaining at least a bachelor's degree. The color-coded diagram below displays the demographic information of Dougherty County, which is outlined in black.²³

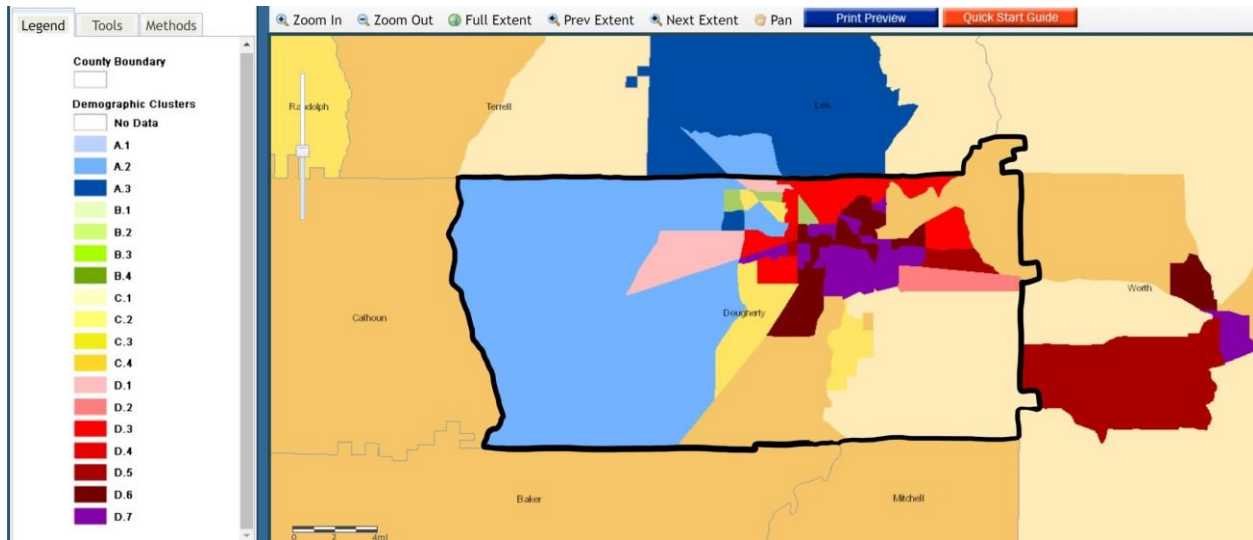


Figure 1. Dougherty County Demographic Cluster. The demographic is broken down into 18 categories with A.1 (denoted by a light blue color) representing the most affluent cluster and D.7 (denoted by purple) representing the least affluent cluster. A description of each category can be found at:

<https://oasis.state.ga.us/gis/demographiccluster/documents/DemoClusters2011Description.pdf>

Regarding healthcare, 11.5% and 16.5% of Dougherty's population under 65 has a disability and does not have health insurance, respectively. The highest three causes of mortality are diabetes, coronary heart, and vascular disease (diseases where blood and oxygen flow are constricted, culminating in heart attacks, cardiac arrests, or strokes for example), in that order. The three highest causes of years of potential life lost are diabetes, homicide, and hypertension/hypertensive renal (kidney damage due to high blood pressure) and heart disease. Dougherty County had 982 deaths in 2019, 952 in 2018, and 918 in 2017. A comparison of the top-ten highest mortality causes in Dougherty County versus how those factors rank overall in the state of Georgia is shown below.²³

County Comparison with Georgia

Cause	Selected Geography Rank	Georgia Rank
Diabetes Mellitus	1	8
Ischemic Heart and Vascular Disease	2	1
Essential (Primary) Hypertension and Hypertensive Renal, and Heart Disease	3	6
Cerebrovascular Disease	4	3
All COPD Except Asthma	5	2
Malignant Neoplasms of the Trachea, Bronchus and Lung	6	4
Alzheimers Disease	7	5
Nephritis, Nephrotic Syndrome and Nephrosis	8	10
All Other Mental and Behavioral Disorders	9	7
All Other Diseases of the Nervous System	10	9

Figure 2. Dougherty County Mortality Causes in Comparison to the State of Georgia.

[Healthcare in Dougherty County](#)

The city of Albany is a healthcare hub for much of Southwest Georgia, as demonstrated in Figure 3 below, which shows that many individuals who die in Dougherty County are residents of the surrounding counties. The map below demonstrates how city and town boundaries are displayed as well.

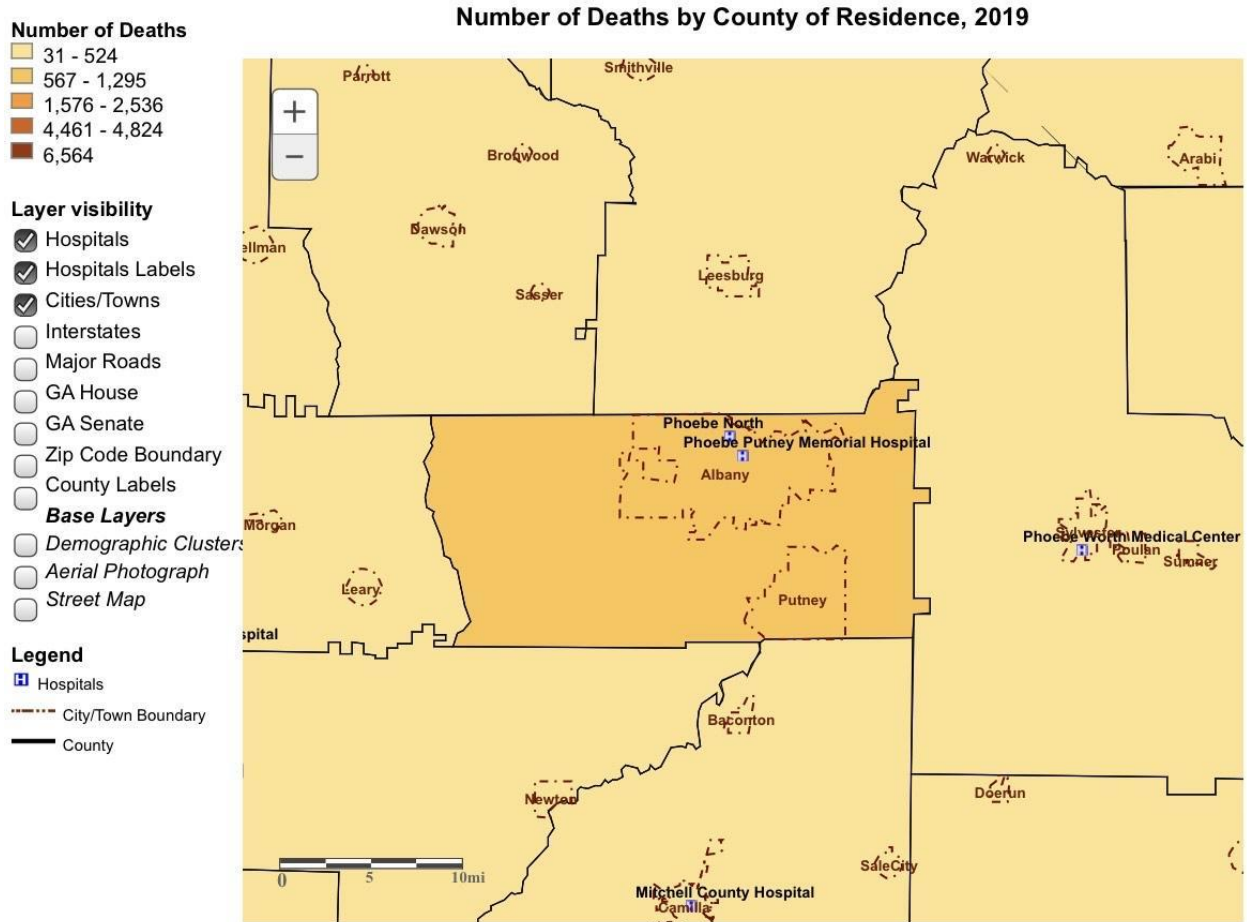


Figure 3. Dougherty County Deaths by County of Residence (2019). Main cities and town and hospitals are outlined and labeled.

Most healthcare workers in Dougherty County are employed by the Phoebe Putney Memorial Hospital system. This hospital system offers a full range of healthcare services, and Phoebe Putney Memorial Hospital, the only hospital in the region, is a regional center for cancer treatment, cardiac medicine and surgery, gastrointestinal disease, and neuroscience. The Phoebe Putney Hospital System employs 4,500 (a little less than 200 of which are physicians and nurse practitioners) individuals and is the largest healthcare provider in the region. The Phoebe Putney Hospital System also provides a number of mental health services including outpatient therapy and inpatient services for adolescents and adults dealing with behavioral health issues.²⁴

Albany Area Primary Healthcare is the region's largest Community Health Center, with 18 locations, including primary care and specialties including internal medicine, family medicine, pediatrics, obstetrics and gynecology, podiatry, general dentistry, vision care, behavioral health, and pharmacy services.

Locations for mental health treatment centers in Dougherty County include: East Albany Medical Center, Mirian Worthy Women's Health Center, and South Albany Medical Center, all of which have a dedicated behavioral therapist on staff. Other mental health treatment centers include Covenant Counseling, which is located in nearby in Colquitt County, and Lee Medical Arts Center, located in Lee County.²⁵

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