

**Examining Our COVID-19 Response: Improving Health Equity
and Outcomes by Addressing Health Disparities**

**United States Senate Committee on
Health, Education, Labor and Pensions**

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Written Testimony of

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Chairwoman Murray, Ranking Member Burr, and Members of the Committee:

My name is Dr. Consuelo H. Wilkins. I am a physician, clinical researcher, professor, and Vice President for Health Equity at Vanderbilt University Medical Center (VUMC). I am board certified in both Internal Medicine and Geriatric Medicine and practice on the inpatient geriatrics service. I lead a portfolio of research awards focused on health equity, health disparities, and clinical trial recruitment and am one of the Principal Investigators of our Clinical and Translational Science Award (CTSA) supported by the National Institutes of Health.

Thank you for hosting this hearing "Examining Our COVID-19 Response: Improving Health Equity and Outcomes by Addressing Health Disparities". COVID-19 health inequities have become intractable and I appreciate the invitation to share about the challenges VUMC faced addressing these inequities in addition to the lessons our team has learned implementing a systems approach to COVID-19 health equity. My testimony is based on my expertise in medicine, clinical research, community engagement and health equity, as well as my experience during the past year as member of the VUMC COVID-19 Command Center and COVID-19 Mass Vaccination Executive Team.

I will first provide background and contextual information related to COVID-19 inequities then share recommendations in three areas:

1. Key data needed to drive more equitable decisions in the COVID-19 response
2. Community-driven solutions to COVID-19 inequities
3. Preparing for COVID-19 long-haul

My testimony will draw from two publications I co-authored: “Equitable Pandemic Preparedness and Rapid Response: Lessons from COVID-19 for Pandemic Health Equity” and “A Systems Approach to Addressing Covid-19 Health Inequities”. Both papers have been submitted to the Committee for inclusion in the record of the hearing.

Overview of COVID-19 Inequities

Inequities in the burden of COVID -19 have been uncovered among marginalized populations across the world and have been particularly striking among African American, Indigenous, American Indian, Hispanic and Latino populations in the United States. These groups are 3-4 times more likely to be hospitalized and 2-2.5 times more likely to die from COVID-19³. Individuals with limited English proficiency,^{4,5} people who are unhoused, and those living in rural communities^{6,7} have also been disproportionately impacted by COVID.

With three COVID-19 vaccines now available, the United States is leading the world – vaccinating more than 2 million people each day. Unfortunately, the populations suffering the greatest burden of the COVID-19 pandemic are not fully benefiting from the tremendous scientific advancements in vaccine development. As of March 22, 2021, nearly 83 million Americans have received at least one dose administered of a COVID-19 vaccine and nearly 24 million are fully vaccinated⁷. Of fully vaccinated persons with race/ethnicity data available, 7.4% are Hispanic/Latino, 7% are Black, and 4% Asian, which is substantially lower than their representation in the U.S. population (18.5%, 13.4%, and 5.9%, respectively). These lower vaccination rates are particularly concerning in light of the higher rates of COVID-19 hospitalizations and deaths among Black and Hispanic/Latino populations. Conversely, White

Americans are being vaccinated at a higher percentage (68.9%) than their representation in national demographics (60.1%)^{7,8}.

Etiology of COVID-19 Inequities

Although COVID-19 inequities are acute, they reflect long-standing disparities in health that many communities, clinicians, public health practitioners, and researchers have striven to address, often with too few resources. The causes of COVID-19 inequities are multifold and involve differences in exposure, susceptibility, testing, and treatment. Groups socially disadvantaged because of race, ethnicity, social position, and/or economic status have greater exposure to COVID-19 because of jobs that prevent work from home, dependence on childcare outside the home, reliance on public transportation, and household size. Poverty and experiences with discrimination and racism lead to chronic psychosocial stress, causing prolonged secretion of stress hormones, which has profound physiological impacts. These changes lead to increased susceptibility both acutely, through impaired immune response to the virus, and chronically, through predisposition to diabetes, obesity, and cardiovascular disease, which are linked to worse COVID-19 outcomes. Marginalized groups are less likely to have a primary care provider, medical home, or regular access to care and may have limited access to COVID-19 testing, treatment, and vaccination.

Lessons from a Systems Approach to COVID-19 Health Equity

At Vanderbilt University Medical Center (VUMC), we have tested more than 185,000 people, admitted more than 3,400 people COVID-19, and administered more than 100,000 doses of COVID vaccines. At VUMC, we are utilizing a systems approach that emphasizes interdependence and interaction across the health system and community to address the

complex drivers of COVID-19 inequities and rapidly respond to data trends in real time. As part of our COVID-19 Command Center, we created a health equity workstream to prevent, identify, and address COVID-related inequities. (The Command Center refers to the team that coordinates the health system's response to an emergency or disaster, as well as the designated work space for those involved.) We identified five initial areas of concentration: four COVID-19-specific areas focused on prevention, testing, treatment, and clinical research; and the fifth area, telehealth, which, although not specific to COVID-19, is increasingly used because of the pandemic and could lead to inequities in access to care. By integrating health equity into our health system's COVID-19 operations, it is a priority, not an isolated stream of work. This approach has allowed us to identify and work to mitigate inequities in real time as our response to the pandemic has evolved. Our key lessons so far are:

1. Executive leaders should clearly state that achieving health equity is a priority and allocate resources, including people, to do this important work; in the case of Vanderbilt University Medical Center, institutional funds totaling more than \$1.5 million annually were committed to the Office of Health Equity prior to COVID-19, facilitating our ability to pivot and rapidly respond;

2. Health equity-related goals and programs should be integrated into the health system's organizational readiness and response with clear expectations for accountability and action;

3. Race, ethnicity and language data must be available in real time, and new processes may be needed to collect and aggregate data;

4. The COVID-19 Command Center includes a wide range of clinical, administrative, and operations leaders, some of whom have limited knowledge of health equity; this exposure could facilitate culture change and innovative ways of advancing health equity in the long term—an example of a learning health system; and

5. Hospitals and health systems must work closely with public health departments and trusted organizations that are closely connected to communities.

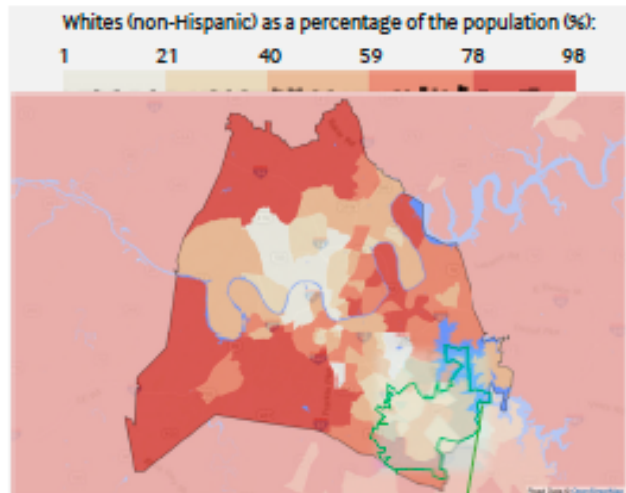
Ongoing Challenges and Recommendations to Advance COVID-19 Health Equity

Key Data Needed To Drive Decisions

The importance of race, ethnicity, and language (REAL) data to understanding COVID-19 cannot be overstated. Without these data, we are unable to disaggregate data to identify disparities in COVID-19 testing, care, vaccination, and outcomes. Even when race, ethnicity, and language are available, these are insufficient for mitigating health inequities, which also requires data on social determinants of health.

At VUMC, we created visualization dashboards for all patients tested for COVID-19 that can be filtered by race, ethnicity, primary language, and ZIP Code, which can be linked to community-level socioeconomic data and social vulnerability indices. For example, the ZIP Code with largest number of COVID-19 cases at VUMC is 37013 (Figure 1, outlined in green). Compared with the Nashville metropolitan area, 37013 is home to twice as many people who are Black/African American or Hispanic/Latino and three times more people who speak languages other than English at home. Despite a higher percentage of adults in this ZIP Code being employed, per capita income is 24% less than the Nashville metropolitan. We used this data to inform our communications strategies including the development and compilation of materials in Spanish and Arabic and to connect with trusted organizations serving communities in this ZIP Code to leverage and amplify the impact of communications efforts.

Most Covid-19 Cases at Vanderbilt University Medical Center (as of July 1, 2020)



Socioeconomic Data of ZIP Code with Highest Number of Covid-19 Cases Compared with Nashville Metropolitan Area		
	ZIP Code 37013	Nashville, TN Metro Area
Population	97,819	1,932,099
Vanderbilt Covid-19 cases (7.1.20)	381	2,470
Black/African American	35%	15%
Hispanic/Latino	16%	7%
Asian/Asian American	4%	3%
High school or equivalent	87.2%	89.5%
Language other than English spoken at home	30.3%	10.3%
Foreign born	25%	8%
Median home value	\$167,900	\$217,500
Household size	2.8	2.6
Adults employed	73.1%	67.6%
Per capita income	\$25,568	\$33,606
Persons below poverty line	15.7%	12.4%

Unfortunately, race and ethnicity are missing in data reported by the CDC in 46% of COVID-19 cases, 24% of deaths due to COVID-19, and 47% of COVID-19 vaccinations. Although the CDC’s recommended reporting documentation⁹ includes fields for primary

language and use of an interpreter, the CDC does not include primary language in its COVID Data Tracker or COVID-Net Hospitalization Data Tracker. Some local and state departments of health are reporting language data, however, there may still be a high proportion of missing/unknown data. For example, the Washington State Health Department reported 60.6% of unknown language data for confirmed or probable COVID-19 cases from 03/01/2020 - 03/13/2021¹⁰. Several cities and states have mandated the collection of language data including California, Massachusetts, Michigan, North Carolina, Oregon, and New York City.

Recommendations:

1. Require capture of self-reported sociodemographic data including race, ethnicity and preferred language in ways that allow for the valid, non-stigmatizing collection of potentially sensitive personal information.
2. Capture individual and/or macro-level data on the social determinants of health geocoded to home addresses when possible, at units of geography that correspond to meaningful, locally defined neighborhoods (i.e., census block).
3. Allow for data sharing across those sectors (health care, public health, social services, etc.) while protecting individuals' information.

Community-Driven Solutions are Needed to Advance Health Equity

One-size-fits-all approaches are unlikely to address the striking disparities evident in COVID-19. Many racial and ethnic minorities, individuals with limited English proficiency, and people living in rural communities face unique sociocultural and economic barriers to

COVID-19 testing, care, and vaccination. Interventions most likely to be successful in achieving health equity are often embedded in the community and are built on trusting relationships, which are developed over time. Without well-established, mutually beneficial relationships, it is difficult to effectively mobilize resources and partner with trusted community organizations.

Many community organizations are well positioned to lead or work closely with health systems and public health agencies to implement effective strategies to mitigate COVID-19. Trusted community organizations and leaders can develop and disseminate messaging about COVID-19 testing and vaccination that is relevant to socially vulnerable communities and recognizes the varying socioeconomic needs and differing levels of trust of health systems and government. Organizations already serving these communities can be sites for testing, distribution of PPE, multi-lingual communications, and vaccinations. Community organizations have the potential to address vaccine readiness and support/provide care for individuals experiencing long-term sequelae of COVID-19.

Recommendations:

1. Fund trusted organizations within communities experiencing inequities to be COVID-19 resource centers – providing access to testing, educational information, access to vaccinations. Include funds to support transportation to sites, child care, operating evenings and weekends, interpreters, tailored messaging, resources in multiple languages, and training for peer educators and vaccinators.

2. Create community-based surveillance programs that leverage community assets and use community health workers to collect surveillance data, share risk-reduction

information, support care for individuals with COVID-19, and serve as access point for health care. Efforts to support utilization of community health workers specifically for COVID-19 should be considered, however, long-term strategies for reimbursement of community health worker models are also needed.

3. Provide additional funding to safety net providers in recognition of the differential needs of safety net providers who disproportionately care for populations experiencing COVID-19 inequities and typically have fewer resources at baseline.

Preparing for COVID-19 Long-Haul

Early data indicate as many as a third of people with COVID-19 will experience long-term symptoms due to the disease. The full extent of the disease is yet unknown, however, given the disproportionate impact of COVID-19 on specific groups, we should expect these groups to also be burdened by the long-term sequelae. To date, people who have survived COVID-19's acute symptoms are experiencing extreme fatigue, shortness of breath, short-term memory loss, tinnitus, and hypersensitivity to light. For some individuals, these symptoms are debilitating, and with no known treatment, quite distressing.

The potential long-term consequences of COVID-19 bring additional concerns for populations disproportionately burdened by the disease. These groups are less likely to have a primary care provider, medical home, or regular access to care. Although many states now have Long-COVID clinics, individuals without routine access to care may not be referred. Additionally, these clinics are likely to be located in large cities and difficult to access for rural populations.

Recommendations:

1. Provide long-term follow-up care and monitoring for people diagnosed with COVID-19 including free care for those without health insurance
2. Make care available to individuals who experienced COVID-19 symptoms who may not have been tested.
3. Provide specific research funding to understand and address the long-term physical and mental health consequences of COVID-19 in populations disproportionately impacted.

Conclusion

Communities of color and other marginalized populations—those living in or near poverty, people who are unhoused, those living in rural communities, etc. – have limited to no resources or access to information address their communities’ increased vulnerability to COVID-19. Importantly, the inequities emerging in the COVID-19 pandemic are not due to race or social class. Rather, they are the result of structural racism and social inequalities embedded within the economic, political, education, health care, criminal justice and other systems and social structures in the U.S. Understanding the fundamental causes of COVID-19 health inequities requires appreciating that the more proximate causes—higher rates of serious medical conditions, living in crowded housing, inability to work from home, etc.—are themselves the result of social inequalities produced by social systems reinforced through policy. We must act now to mitigate the immediate and long-term consequences of COVID-19 on populations already burdened by health inequities.

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