ARTICLE

A Systems Approach to Addressing Covid-19 Health Inequities

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Racial and ethnic minorities are dying from Covid-19 at alarmingly high rates, which demands immediate action. Health system leaders cannot allow other priorities to interfere with a commitment to address health inequities. Vanderbilt University Medical Center (VUMC) has embedded strategies to mitigate health inequities in its Covid-19 Command Center. A key strategy is the creation of interactive dashboards, which are reviewed daily and allow disaggregation by race, ethnicity, language, and ZIP Code. Of the first 45,954 patients tested for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) at VUMC, 2,310 had limited English proficiency (LEP). The positivity rate for patients with LEP was 26% compared with 6% for patients with English as a primary language. In addition to alerting local and state health departments of these higher rates, we created multilingual resources, assessed our interpreter services capacity, and engaged trusted community organizations. Early lessons learned at VUMC may help others implement a systems approach and immediately begin addressing Covid-19 health equity.

Inequities in the burden of Covid-19 have been uncovered among vulnerable populations across the world[1] and are particularly striking in racial and ethnic minorities in the United States.[2] In New York City, African Americans and Latinos diagnosed with Covid-19 had mortality rates that were 1.6 to 2 times higher than those of whites.[3] Across the United States, Covid-19 infections are threefold higher and mortality rates are sixfold higher in predominantly Black counties compared with predominantly white counties.[4] In Arizona, Native Americans make up 4.6% of the population but comprise 16% of the state's Covid-19–related deaths.[5,6] Although these inequities are acute, they reflect long-standing disparities in health that many communities, clinicians, and researchers have striven to address, often with too few resources and inconsistent public support.[7]

National and global media have drawn attention to these alarming Covid-19 health inequities, and, in response, communities, health care providers, and elected officials[8-10] are demanding answers and action. The causes of these inequities are likely multifold and involve differences in exposure, susceptibility, testing, and treatment.[11] Groups socially disadvantaged because of race/ethnicity, social position, and/or economic status may have greater exposure to the virus 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 leads to physiological dysregulation and inflammation.[12-14] The resulting maladaptation increases susceptibility both acutely, through impaired immune response to the virus,[15,16] and chronically, through predisposition to diabetes, obesity, and cardiovascular disease,[17] which are linked to worse Covid-19 outcomes.[18] Disadvantaged 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 and treatment.[19,20]

Despite widespread concern about the excess Covid-19 burden and deaths among racial and ethnic minorities, little attention has been paid to immediate solutions. Dismantling upstream factors such as racism, economic opportunity, housing inequality, and food insecurity is critical to addressing health inequities, although doing so can be challenging, particularly during a pandemic. Some state and local governments are taking mitigating steps, for example, by placing a moratorium on evictions or expanding access to food assistance programs.[21] Such short-term policies are important for limiting economic burden but may not decrease Covid-19 infection rates or deaths. Directly addressing more proximal or downstream contributors such as lack of access to care and inequity in testing and treatment may be more feasible during this time and could immediately impact health outcomes.

> *Despite widespread concern about the excess Covid-19 burden and deaths among racial and ethnic minorities, little attention has been paid to immediate solutions.*"

Leaders must do more than set broad goals to lessen or eliminate health inequities; they must develop specific, measurable objectives and implement strategies that will successfully address those inequities.

African American health care leaders recently published recommendations to address Covid-19 disparities.[22] In addition to addressing social determinants of health (SDOH) in the long term, they recommended immediate actions to record and report race and ethnicity data, ensure access to current and emerging treatment, provide mobile access to testing, and communicate via trusted community leaders. Health systems may have difficulty implementing these recommendations during a pandemic, particularly in the absence of an existing infrastructure to support health equity initiatives.

Interventions likely to be successful are often embedded in the community and are built on trusting relationships, which are developed over time.[23-25] Without well-established, mutually beneficial

relationships, it may be difficult to effectively mobilize resources and partner with trusted community leaders during a pandemic. The lack of accuracy and incompleteness of race, ethnicity, and language (REAL) data in health records are long-standing issues and limit progress toward eliminating health inequities.[26,27] Similarly, ineffective recruitment and retention of racial and ethnic minorities into clinical trials is an ongoing challenge, and there has been minimal progress in the 25 years since the National Institutes of Health required reporting of race and ethnicity.[28]

A Systems Approach to Health Equity

We used a systems approach that emphasizes interdependence and interaction across the health system to address the complex drivers of Covid-19 inequities and rapidly respond to data trends in real time. As part of our Vanderbilt University Medical Center (VUMC) Covid-19 Command Center, we created a health equity workstream to prevent, identify, and address Covid-19–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.) Led by our Office of Health Equity (OHE) and Vice President for Health Equity, 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.

The work leverages our OHE, which was established in 2018 to catalyze initiatives that address and prevent health equities. Our OHE has dedicated full-time staff focused on program pillars that align with clinical, educational, and research missions. The OHE is home to VUMC's Community Health Needs Assessment office and maintains ongoing partnerships with public health agencies and more than 100 community-based organizations. Our initial Covid-19 work focuses on racial and ethnic minorities and individuals with limited English proficiency (LEP). We developed objectives, tactics, and workstreams to address the five areas of concentration (Table 1).

We created an interprofessional Covid Health Equity Team, comprising physicians, nurses, social workers, and operational leaders with expertise in minority health, SDOH, quality improvement, public health, health communication, clinical research, diversity and inclusion, and telehealth. In addition to the primary team, each area of concentration has a work group that includes other VUMC stakeholders with content area expertise (such as interpreter services, patient access, communications, and health IT) and decision-making authority.

> " *The lack of accuracy and incompleteness of race, ethnicity, and language (REAL) data in health records are long-standing issues and limit progress toward eliminating health inequities. Similarly, ineffective recruitment and retention of racial and ethnic minorities into clinical trials is an ongoing challenge.*"

Table 1. Covid-19 Health Equity Workstreams at VUMC

Workstream (Team Expertise)	Objectives	Key Tactics

Effective risk communication (public health, health communications, interpreter services, patient education, and marketing)	• Effectively communicate Covid-19 risks and preventive strategies to:
	  • Individuals from groups at risk of health inequities: racial/ethnic minorities, socioeconomically disadvantaged, and people with LEP
	  • Employees, including those in roles beyond direct patient care such as dietary, maintenance, and environmental services
		• Evaluate patient- and employee-facing materials (including website) for appropriate reading level, language access, usability, and ease of finding and making decisions
		• Create/revise materials to be 6th-grade reading level or lower, available in commonly spoken languages, and appropriate for individuals from diverse backgrounds
		• Optimize website for readability and multiple language options
		• Develop standard operating procedures for creating and distributing patient and employee materials
		• Monitor use of various platforms to ensure employees and patients with a range of backgrounds are being reached (e.g., employees without regular email access, patients without computers/Internet access)
		• Partner with public health and trusted community organizations/leaders to share via multiple channels including Web, print, radio, social media, and virtual town halls

Equitable testing (epidemiology, community health, clinical care, and quality improvement)	• Provide/facilitate timely testing • Report aggregate test results by key demographics including age, sex, race/ethnicity, preferred language, and ZIP Code	• Assess availability of Covid-19 testing on the basis of location, hours of operation, access via public transportation, access regardless of insurance, availability of interpreters, and surveillance process for opportunities to improve equity • Develop dashboard with Covid-19 testing data by race, ethnicity, language, and ZIP Code • Review percentages of Covid-19–positive within racial/ethnic groups, within language categories, and by ZIP Code • Compare Covid-19 testing utilization by race/ethnicity/language with demographics of VUMC patients and Nashville metro area population • Create plans to rapidly address any inequities in testing • Frequently communicate with local/state health departments to identify/address community-level inequities
Equitable care (hospital medicine, nursing, social work, population health, quality improvement, and clinical research)	• Provide quality care that does not vary because of race, ethnicity, sex, or socioeconomic status • Effectively communicate postdischarge plans and facilitate transitions of care • Report aggregate outcomes by key demographics including age, sex, and race/ethnicity	• Develop dashboard that includes Covid-19 treatment and hospitalization data by race, ethnicity, language, and ZIP Code • Compare hospitalization rates, use of specific treatments (including remdesivir and dexamethasone), discharge rates, and deaths by race, ethnicity, language, and ZIP Code • Assess availability of discharge information at appropriate reading level and in multiple languages • Assess transitions of care/follow-up care • Monitor enrollment in clinical trials

Table 1. Covid-19 Health Equity Workstreams at VUMC (*Continued*)

Workstream (Team Expertise)	Objectives	Key Tactics
Inclusivity in clinical trials (research operations, clinical care, and minority recruitment)	• Increase awareness of importance of clinical research for Covid-19, given there is no proven effective therapy • Engage and enroll racial and ethnic minorities and other socially disadvantaged groups in Covid-19 clinical trials	• Develop and disseminate general messaging about the importance of clinical research for Covid-19 and reasons minorities should consider participating • Create a checklist for Covid-19 clinical trials to avoid inclusion and exclusion criteria that limit eligibility among minorities • Identify research champions from racial/ethnic minority groups • Develop recruitment materials with diverse imagery and culturally appropriate language • Assist with translation of consent forms and recruitment documents
Broad adoption of telehealth (social work, patient experience, quality improvement, clinical care, and IT)	• Effectively use telehealth to provide care for patients including those with limited health literacy, LEP, and limited Internet access • Increase adoption of telehealth among racial and ethnic minorities, patients with LEP, and people living in underserved rural communities	• Develop dashboard that includes telehealth visits by race/ethnicity/language for all ambulatory clinics • Assess telehealth utilization by race/ethnicity/language/ZIP Code • Create telehealth awareness and "how-to" information for individuals with varying health literacy, English proficiency, access to Internet, and availability of telehealth-capable device • Create training materials to support use of interpreters in telehealth visits • Develop specific plans to address any identified inequities

VUMC = Vanderbilt University Medical Center, LEP = limited English proficiency. Source: The authors.

We Need REAL Data and SDOH Metrics To Make Decisions

The importance of REAL data to understanding Covid-19 cannot be overstated.[29] Without these data, we are unable to identify disparities in Covid-19 testing, care, and outcomes. Unfortunately, race and ethnicity are missing in 20% to 30% of health records[30] and, when available, can be insufficient for mitigating health inequities, which also requires SDOH data. Recognizing the issues with missing data and that there is no standardized collection of social determinants, a principal strategy in our work is to use the most reliable information currently available in the health record to disaggregate data, while simultaneously working to improve the quality and accuracy of the data. We have created visualization dashboards for all patients tested for SARS-CoV-2 that can be filtered by race, ethnicity, primary language, and ZIP Code, which can be linked to community-level socioeconomic data (Figure 1).

FIGURE 1

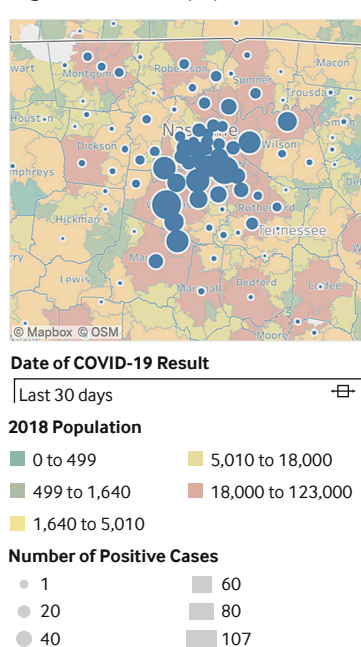## VUMC Covid-19 Health Equity Dashboard

Dashboards reviewed daily by the Vanderbilt University Medical Center Covid Health Equity Working Group include Covid-19 cases disaggregated by race, ethnicity, and language (REAL). The Working Group also reviewed data by ZIP Code.

COVID-19 Health Equity Workstream
Vanderbilt University Medical Center

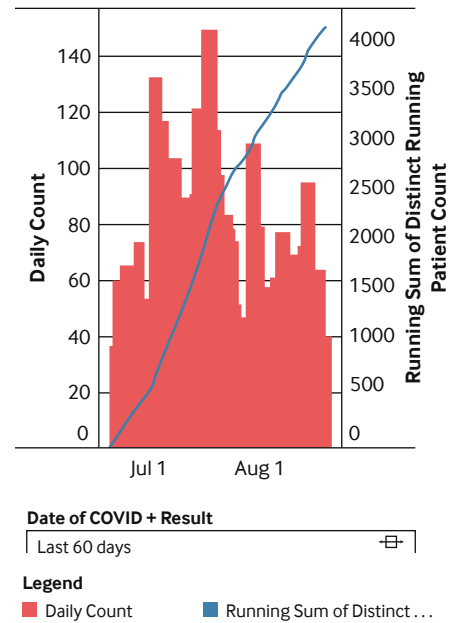| Race/Ethnicity (% of COVID⁺ | % from baseline)	Primary Language (% of COVID⁺ | % from baseline)	Gender (% of COVID⁺ | % from baseline)
White: 46% | -20% Black/African American: 9% | -2% Hispanic/Latino: 11% | 6% Asian: 2% | 0 Other: 7% | 4% Unknown: 23% | 10%	English: 80% | -14% Limited English Proficiency: 19% | 14% Spanish: 11% | 8% Arabic: 5% | 3% Nepali: 2% | 1% Unknown: 1% | 0	Woman: 52% | -9% Man: 47% | 8% Transgender: <1% | 0 Unknown: <1% | 0

Patients tested by zip
Shows the number of patients tested in last 30 days (by default) by patient zip code

Date of COVID-19 Result

Last 30 days

Number of records

1   859
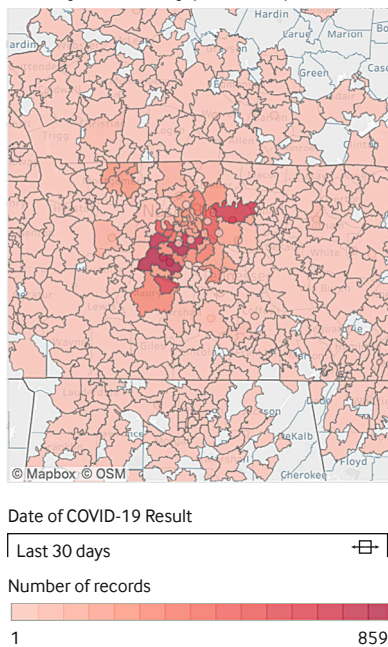
Positive cases against population
Shows the number of positive cases in last 30 days (by default) by zip code against the 2018 population statistics

Date of COVID-19 Result

Last 30 days

2018 Population

- ☐ 0 to 499
- ☐ 499 to 1,640
- ☐ 1,640 to 5,010
- ☐ 5,010 to 18,000
- ☐ 18,000 to 123,000

Number of Positive Cases
- ∙ 1
- • 20
- ● 40
- ◯ 60
- ◯ 80
- ◯ 107

Daily Trend Positive Cases

Date of COVID + Result

Last 60 days

Legend
- ☐ Daily Count
- ☐ Running Sum of Distinct . . .

Source: Data from Vanderbilt University Medical Center. Dashboards created in Tableau. Business Intelligence and Analytics Software. Tableau Software, LLC. 2020. https://www.tableau.com/

The dashboards are updated daily and reviewed by our team to assess differences in testing, Covid-19–positive rates, hospitalizations, types of Covid-19 treatments provided, and deaths.

To facilitate collection of missing REAL data, we are creating phone scripts for the team who currently conducts 14-day follow-up calls to patients with Covid-19 (Appendix). We are also reviewing charts to determine whether REAL data are documented in other areas of the health record, such as in the social or family history contained in clinicians' notes. These strategies are intended to improve the accuracy and completeness of REAL data among patients with Covid-19 and will not replace our long-term approaches, which include training staff on data collection, informing patients about self-reporting, and providing opportunities for self-reporting outside the context of a clinical encounter.

We Must Communicate Effectively to All Audiences

Effectively communicating disease risk is vital during a pandemic, and messaging must be clear and easy to understand.[31] Because Covid-19 is novel, evidence is emerging continuously, and health systems may struggle to quickly create and revise public-facing materials at the appropriate reading level and in multiple languages. The evolving information landscape makes it difficult to acquire and apply knowledge, especially for individuals with limited health literacy and LEP.[32] Individuals from groups who have been marginalized and historically underserved may be less trusting of new information and less likely to apply new knowledge or change behavior.[33] Our health equity goals for prevention of Covid-19 are to effectively communicate disease risks and preventive strategies to patients and families from diverse backgrounds as well as to our employees, including those in roles not directly involved in patient care but vital to our health system, such as dietary, maintenance, and environmental services staff.

> *The importance of race, ethnicity, and language (REAL) data to understanding Covid-19 cannot be overstated. Without these data, we are unable to identify disparities in Covid-19 testing, care, and outcomes.*"

Key strategies involve creating and revising patient- and employee-facing messaging to be at a reading level appropriate for a general audience, making Covid-19 information available in the three most common languages spoken among VUMC patients (English, 95%; Spanish, 2.6%; and Arabic, 1.1%), and creating standard operating procedures for the rapid review of new Covid-19 materials for both understandability and culturally appropriate language. In partnership with trusted community-based organizations and leaders, we are convening virtual town halls in Spanish and Arabic and disseminating Covid-19–related information using multiple channels, including social media. For example, in conjunction with a local community center, we held an Arabic-language livestream event on the topic of Covid-19 and the implications for pregnancy and newborns that received 3,200 views, 28 shares, and 46 comments in June.

Early on, we found the need to clarify which personnel were considered health care workers, a phrase being used frequently in the media and often presumed to be direct patient care roles such as physicians and nurses. To address this, we revised messaging to employees to explicitly include roles such as environmental services and patient transport, positions often likely to be held by racial and ethnic minorities and individuals without a college degree. To support different learning styles and avoid reliance on written educational modules, we provided in-person education on donning and doffing of personal protective equipment for our environmental services team. We also considered methods such as sharing information in huddles and posting in break rooms to ensure messaging reaches patients and employees who do not use or regularly access email and those without computers and Internet access at home.

Dashboards Provide Greater Transparency in Testing, Care, and Research

Timely access to testing is a critical component of identifying, preventing, and addressing inequities, particularly given the mounting evidence of Covid-19 disparities among communities of color. VUMC, a Nashville-based academic health center with more than 26,000 employees and 1,000 residents, has worked closely with the Nashville/Davidson County Metro Public Health Department and the Tennessee Department of Health to facilitate broad access to SARS-CoV-2 testing. As of July 1, 2020, VUMC had tested 45,954 patients for SARS-CoV-2, and 3,171 tested positive. When disaggregated, we found higher percentages of Covid-19 within all racial/ethnic minority groups and among speakers of languages other than English (Table 2).

The most striking differences were among people who spoke a primary language other than English. Forty-eight different primary languages were spoken, and 607 (26%) of the 2,310 people with LEP had positive results.

Table 2. VUMC SARS-CoV-2 Tests by Race, Ethnicity, and Primary Language

	Population Demographics* (Percent of the Total Population in Nashville Metropolitan Statistical Area: 1,932,000)	SARS-CoV-2 Tests, n (% of 45,954)	Positive SARS-CoV-2, n (% of 3,171)	Within-group Positive SARS-CoV-2 Tests (Percent Positive Tests Within Racial/ Ethnic or Linguistic Group)
Race/ethnicity				
White	72	30,460 (66.3)	1,470 (46.4)	4.8
Black/African American	15	5,291 (11.5)	319 (9.3)	6
Hispanic/Latino	7.4	2,190 (4.8)	372 (10.1)	15.6
Asian	2.7	843 (1.8)	64 (2)	7.6
American Indian/Native American	0.2	98 (<1)	11 (<1)	11.2
Other	2.7	1,235 (2.7)	213 (6.7)	17.2
Unknown race/ethnicity	n/a	5,837 (12.7)	722 (22.7)	12.4
Primary language				
English	89.2	43,462 (94.6)	2,550 (80.4)	5.9
All languages other than English (includes 48 languages)	10.8	2,310 (5)	607 (19.1)	26.3
Spanish	5.3	1,206 (2.6)	327 (10.7)	27.1
Arabic	<1	618 (1.7)	165 (5.2)	26.7
Nepali	<1	148 (<1)	63 (2)	42.6
Unknown primary language	n/a	182 (<1)	14 (<1)	7.7

VUMC = Vanderbilt University Medical Center, SARS-CoV-2 = severe acute respiratory syndrome coronavirus 2, n/a = not applicable (data are not collected by that population demographic source). All racial and ethnic groups had a higher percentage of positive SARS-CoV-2 tests compared with white patients. Individuals with a primary language other than English had a more than fourfold higher percentage of positive SARS-CoV-2 tests compared with patients with English as a primary language. Of note, the positivity rate among Black patients is not as high as national averages, which may be attributed to the socioeconomic status of the local population; however, the positive test rate is 25% higher than the positivity rate for white patients. Data include all patients tested for SARS-CoV-2 at VUMC from March 9, 2020, to July 1, 2020. Total tested, 45,954; total positive tests, 3,171. *Population demographics for Nashville metropolitan area include Davidson, Williamson, and Rutherford counties. Data from American Community Survey 2018. Census Reporter. 2020. https://censusreporter.org/profiles/ 31000US34980-nashville-davidson-murfreesboro-franklin-tn-metro-area/. Source: The authors.

To better understand the social and environmental context, we mapped the ZIP Codes of those who tested positive and found the highest number of cases in two adjacent ZIP Codes in southeast Nashville, where more than 30% of residents' primary language is not English and adjusted gross income is $36,384 compared with the county average of $56,507 median (Figure 2).

FIGURE 2

Most Covid-19 Cases at VUMC (as of July 1, 2020)

The ZIP Code with largest number of Covid-19 cases at VUMC is 37013 (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.

Most Covid-19 Cases at Vanderbilt University Medical Center
(as of July 1, 2020)
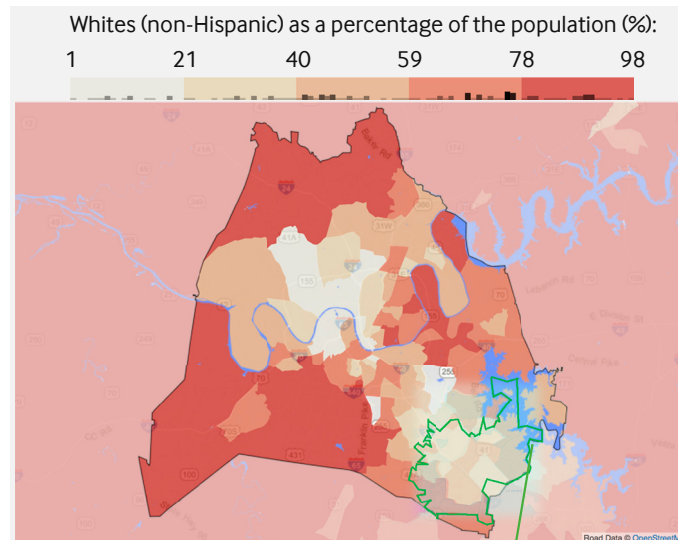
Socioeconomic Data of ZIP Code with Highest Number of Covid-19 Cases Compared with Nashville Metropolitan Area		
	ZIP Code 37013	Nashville, TN Metro Area
Population	97,819	1,932,099
Vanderbilt Covid-19 cases (7.1.20)	381	2,470
Black/African American	35%	15%
Hispanic/Latino	16%	7%
Asian/Asian American	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%

Source: Socioeconomic data from Census Reporter. 2020. Accessed November 14, 2020. https://censusreporter.org/profiles/86000US37013-37013/ and https://censusreporter.org/profiles/31000US34980-nashville-davidson-murfreesboro-franklin-tn-metro-area/. Map from Statistical Atlas. Demographics. 2020. Accessed November 14, 2020. https://statisticalatlas.com/county/Tennessee/Davidson-County/Race-and-Ethnicity#data-map/tract

In addition to sharing our findings with the city/county and state health departments, which currently are collecting language data episodically but not routinely, we created additional Covid-19 resources in the languages with the highest number of cases (Arabic, Nepali, and Spanish), catalogued multilingual patient-facing Covid resources from national organizations, and shared these resources with provider teams internally and with community organizations connected with these communities. We also informed our interpreter services department and assessed its capacity to meet a possible increase in demand.

Dashboards are reviewed daily by our Covid Health Equity Team to assess differences in Covid-19 hospitalizations, types of treatments received, and deaths. As of July 1, 2020, there had been 342 hospitalizations, and 209 (61%) were patients with LEP. There had been 25 Covid-19–related deaths at VUMC, including 18 white patients and three patients with LEP. Because there are no proven effective treatments for Covid-19, we are monitoring Covid-19 clinical trial enrollment and working with the Vanderbilt Institute for Clinical and Translational Research and Recruitment Innovation Center to support minority enrollment in trials. Our strategies include developing culturally appropriate messaging, using diverse images in recruitment materials, and making consent forms available in multiple languages.

Mitigating Health Inequities Indirectly Related to Covid-19

In addition to the excess morbidity and mortality related directly to Covid-19, the loss of income, disruption of education, and other indirect effects of Covid-19 will likely disproportionately impact racial and ethnic minorities.[25,34] As VUMC and many other health systems quickly pivoted to provide more telehealth, we wanted to mitigate potential inequities in access among racial and ethnic minorities who might be less trusting of telehealth, have differential access to high-speed Internet and electronic devices, or speak other languages. To assess adoption of telehealth, we created a dashboard with telehealth visits by REAL for each of the 21 VUMC ambulatory patient care centers (PCCs).

> *At VUMC, where making diversity and inclusion is intentional with values and objectives that guide strategic direction, we integrated health equity into our health system's Covid-19 operations to make it a priority, not an isolated stream of work.*"

At two PCCs, for example, we found that telehealth visits were 24% lower than the prepandemic in-person visits for African American patients, 54% lower for Latino patients, 47% lower for Asian patients, and 71% lower among people who speak languages other than English.

We identified limited prior use of patient portals, lack of detail in instructions for telehealth use, and challenges to using interpreters in virtual visits as specific barriers to patients with LEP. To address these, we expedited release of a Spanish version of our patient portal and have provided additional instructions to providers and staff to allow interpreters to join telehealth visits. Because some patients have limited technical proficiency, medical students have been deployed to help patients

prepare for telehealth visits. To supplement telehealth, we have provided home visits and performed in-home testing for some patients who live in subsidized housing and have limited transportation.

Key Lessons

During a pandemic, health systems face many demands and must rapidly respond in ways to ensure everyone has the best opportunity to be healthy. Tools enable health systems to implement a comprehensive approach to Covid-19; however, systematic ways to address health inequities may be limited.[35] At VUMC, where making diversity and inclusion is intentional with values and objectives that guide strategic direction, we integrated health equity into our health system's Covid-19 operations to make it a priority, not an isolated stream of work. This approach has allowed us to identify and work to mitigate inequities. 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 VUMC, institutional funds totaling more than $1.5 million annually were committed to the OHE 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. REAL 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 different ways of advancing health equity in the long term; and

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

The impacts of the Covid-19 pandemic will be felt for a long time, and, without intervention, racial and ethnic minorities will likely bear a higher burden of the disease and greater socioeconomic loss. It is not too late for health systems to take systematic and intentional steps to prioritize health equity. By setting clear health equity objectives, disaggregating data by REAL, and implementing strategies informed by social context, we may prevent or lessen health inequities and be better positioned to address the underlying contributors to health that require more equitable infrastructure and broad changes in policies.

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Appendix

[Phone Script for Collecting Race, Ethnicity, and Language During Follow-up Calls to Patients with Covid-19](#)

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