

Addressing Health Disparities in Delaware by Diversifying the Next Generation of Delaware’s Physicians

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The COVID-19 pandemic has shined a light on health disparities in the United States and the impact of the social determinates of health (SDOH). Black Americans have a mortality rate 2.4 times that of whites and this disproportionality is more widespread throughout the United States compared to any other racial/ethnic group.¹ COVID-19 disparities are also manifesting in the State of Delaware. As of May 24, 2020, both Non-Hispanic Black and Hispanic/Latino Americans have the highest rate of COVID-19 cases, with a rate of 111.3 and 281.6 cases, respectively, while non-Hispanic Whites have a rate of 38.5.² These disparities, although startling, are not surprising considering that before the COVID-19 outbreak health disparities were already persistent. For the top ten leading causes of death, when compared to non-Hispanic White Delawareans, non-Hispanic Black Delawareans lead with the highest adjusted mortality rate for seven of the causes of deaths between 2014 and 2018 (see Table 1). The most common comorbidities associated with COVID-19 are hypertension, obesity, and diabetes, all of which disproportionately impact Black and Hispanic/Latin Americans in the United States and Delaware.^{4,5} Effective strategies must be deployed in the short-term to reduce COVID-related health disparities while simultaneously investing in long-term strategies such as improving workforce diversity to completely eliminate future health disparities.

Table 1. Five year age adjusted mortality rate of the top 10 leading causes of death (2014-2018)³

LEADING CAUSES OF DEATH	NON-HISPANIC	
	White	Black
Malignant neoplasms	169.1	181.2
Diseases of the heart	159.4	179.0
Chronic lower respiratory diseases	44.8	32.7
Cerebrovascular diseases	39.2	55.1
Dementia	35.7	41.0
Accidents (unintentional injuries)	65.5	44.8

Diabetes mellitus	16.0	32.5
Alzheimer's disease	25.2	28.4
Nephritis, nephrotic syndrome, and nephrosis	13.3	31.1
Influenza and pneumonia	13.9	12.3

Strategies: Health Workforce Diversity Pipeline Investments

One strategic approach for improving the SDOH for minority communities and reducing health disparities is to invest in the recruitment of a diverse healthcare workforce. Diverse healthcare workers are uniquely positioned to tackle these dimensional problems for several reasons. For one, a diverse healthcare workforce increases the likelihood that high quality care will be provided to underserved populations and people of color. For example, physicians who self-identified as belonging to an underrepresented minority (URM) group were more likely than their colleagues to practice in high-need areas.⁶ In a Stanford Study, Black men in Oakland, California were paired with either Black or non-Black physicians. The men seen by Black physicians were more likely to engage with them, and even consent to preventive services like immunizations. Additionally, the Black physicians were more inclined to write detailed notes about their Black patients.⁷ A diverse health workforce will also strengthen cultural competence throughout the health system. The U.S. healthcare system has largely been built upon the practices of Western medicine. Many healthcare systems are currently poorly equipped to provide culturally competent care to patients from underrepresented backgrounds and to those who believe in nontraditional concepts of illness and treatment. Diversity in our healthcare workforce is an effective strategy to increase patient satisfaction, decrease health workforce shortages, improve the cultural competence of health systems, and ultimately decrease health disparities.

Although a diverse healthcare workforce is crucial for achieving health equity thus reducing health disparities, there persists an underrepresentation of certain racial/ethnic groups in the United States and Delaware. The Association of American Medical Colleges (AAMC) historically classified four racial/ethnic groups as underrepresented in medicine: Black Americans, Mexican Americans, Native Americans (which include American Indians, Alaska Natives, and Native Hawaiians) and mainland Puerto Ricans.⁸ The state of Delaware suffers from an underrepresentation of minority physicians similar to most other states in the United States (see Table 2). These disparities are consistent within the medical school applicant pool, with far less URM students applying to and matriculating into medical school even after Liaison Committee of Medical Education diversity accreditation guidelines were established in 2009.¹² As the United States becomes more diverse, action must be taken now to better address health disparities by ensuring that the future physician workforce is more diverse and better reflects the makeup of the communities that they serve.

Table 2: Percentages of active physicians in USA by race/ethnicity compared to the percentage of US population by race/ethnicity and the percentage of primary care physicians by race/ethnicity in Delaware compared to percentage of Delawareans by race/ethnicity

United States		
Race/Ethnicity	Percentage of active physicians in the USA (2018) ⁹	Percentage of USA population ¹⁰
Non-Hispanic Black	5%	13%
Hispanic/Latin	5.8%	18.3%
American Indian, Alaskan native, Native Hawaiian, and Pacific Islander	0.4%	1.5%
Asian	17.1%	5.9%
Non-Hispanic White	56.2%	60.4%
Delaware		
	Percentage of primary care physicians in Delaware ¹¹	Total population of Delaware by percentage ¹⁰
Non-Hispanic Black	6.6%	23%
Hispanic/Latin	4.4%	9.5%
Asian	22.6%	5.9%
White	66.7%	61.9%

Current Health Workforce Pipeline Diversity Efforts in Delaware

There are increasing efforts from the government, healthcare organizations, and academic institutions nationwide to address the underrepresentation of minorities in health professions and foster strategies for workforce diversification. According to the Institute of Medicine, pipeline programs that support the needs and success of minorities are pivotal for improving healthcare workforce diversity.¹³ For example, the Human Resources and Services Administration (HRSA) has grant funding for academic institutions to promote recruitment and retention of minorities in the field of nursing. The funding provides academic and financial support, mentorship,

community engagement, and clinical and research opportunities.¹⁴ Similarly, the Health Sciences Camp at the University of Delaware provides high schoolers from underrepresented backgrounds and first-generation college families with a free college immersion experience in the health sciences. Students can engage with faculty and researchers, and also gain exposure to nursing, biotechnology, exercise science, and other health specialties.¹⁵

For students particularly interested in pursuing medicine, the Harrington Value Institute Community Partnership (VICP) Fund sponsors a yearlong research internship to support URM students in their pursuit to medical school. Established in 2015, The Harrington Value Institute Community Partnership Fund was established by a donation from the estate of Charles J. Harrington, Ph.D. Dr. Harrington was deeply committed to advancing scholarship and supporting innovative projects that help reduce health care disparities for underserved and disadvantaged populations. The Harrington Value Institute Translational Research Internship prepares recently graduated college students for careers in medicine and translational research by providing enriching research opportunities, clinical shadowing, mentorship, and a curriculum tailored to academic and professional development. The internship is primarily housed at ChristianaCare's Value Institute, where students engage with physicians, nurses, researchers, community leaders, and other healthcare professionals throughout the health system to enhance their understanding of translational research, public health, the social determinants of health, and medicine. Upon completing the internship, many interns have successfully matriculated into accredited medical schools and left the internship with added confidence and skills that will better prepare them for medical school and clinical research careers.

Future Health Workforce Pipeline Diversity Efforts in Delaware

The Harrington VICP Fund plans to expand this opportunity to more underrepresented students in the upcoming years. Additionally, the Harrington VICP Fund also understands the vast array of other common barriers affecting the URM medical school pipeline and has recently created an MCAT Prep Program for students to receive quality preparation for the Medical College Admissions Test (MCAT). According to the AAMC, minority students traditionally do not perform as well as white students on the MCAT, and a major factor contributing to this disparity is lack of financial support for test preparation materials.^{16,17} Furthermore, the current COVID-19 pandemic and its threats to many underserved communities have intensified students' financial challenges. Students enrolled in the MCAT Prep Program will have access to a 6-week online Kaplan MCAT course as well as mentoring and peer support during their medical school application process. These students will also be introduced to the concepts of health disparities, social determinants of health, and the importance of cultural competence in caring for their future patients. Upon completing the program, program participants will not only be better prepared candidates for medical school, but they will also be equipped with skills to become culturally humbled leaders in their community.

While there are a few strategies in place to increase diversity of the healthcare workforce, there is still much work to be done. Substantial investments are needed to build robust physician pipeline programs for URM students in K-12 and undergraduate levels to ensure a diverse healthcare workforce. Delaware is presented with a unique challenge to its physician pipeline because the state does not have its own medical school. The Harrington VICP is optimistic that many of its program participants will return to practice in Delaware after completing their medical training and commit to careers committed to reducing health disparities. As Delaware's

population continues to diversify, the programs implemented by the Harrington Fund can serve as a guideline for the development of additional URM physician pipeline programs.

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