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### FROM THE EDITOR

#### Equity in Breath

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672 768 000 is the number of breaths a person at rest might take in a lifetime if she lived to 80.

According to life tables published in *National Vital Statistics Reports* in 2019, the US life expectancy of a non-Hispanic White person born in 2017 is 78.5 years.<sup>1</sup> For a non-Hispanic Black person, that number drops to 74.9.<sup>1</sup> Would it surprise you to know that it's 81.8 years for a Hispanic person?<sup>1</sup> At first glance, it's also puzzling why the Medicare race and ethnicity classification system on which the US life tables are based "makes it impossible to correctly identify" Asians or Pacific Islanders and American Indians/Alaska Natives.<sup>1,2</sup>

With questions about what's counted, how it's counted, and who counts being asked more frequently and by more of us than ever before, how credibly these questions are answered has considerable quantity- and quality-of-life implications for individuals and communities. Through early November, almost 1.25 million people worldwide have died due to COVID-19, and nearly 235 000 of those perished in the United States, with disproportionate deaths among people of color.<sup>3,4</sup> Based on excess mortality data, America's death toll due to COVID-19 is likely being undercounted,<sup>5</sup> but some have misconstrued death certificate data to claim that it's being overcounted.<sup>6</sup>

In a year of the decennial census, concerns abound that the pandemic has undermined community outreach efforts and will result in an inaccurate count of the US population, especially among individuals who largely live in neighborhoods of color.<sup>7</sup> Given worries about the accuracy of the population count and its impact on federal representation and resources, in August 2020, the US government was taken to court on its plan to cut short census data collection.<sup>8</sup> In a 2020 presidential election year like no other, the integrity of the voting system has been undermined and the accuracy of the vote count has been questioned by a major party presidential candidate.<sup>9</sup> As we work to confront an unprecedented mix of natural- and human-made threats, the importance of being **guided by evidence and truth**—and not being swayed by peddlers of miscounts and lies—cannot be overstated.

I live in a city where there is a 30-year life expectancy gap between a predominantly Black neighborhood south of the Chicago River (Englewood) and a largely White neighborhood north of it (Streeterville).<sup>10</sup> Although life expectancy differences between non-Hispanic Black and White Americans as reported in US government statistics

reaffirm my appreciation of racial and ethnic inequity, I would never have guessed that Hispanic Americans live longer on average than both racial groups. This “Hispanic mortality paradox” has yet to be definitively understood and to be explained with scientific transparency and humility.<sup>11</sup> That said, I think a few points are worth keeping in mind. First, care should always be taken not to treat any socially identified group as monolithic. Second, differences that exist in life expectancy between racial and ethnic groups are socially and culturally situated, not biologically derived. Finally, group differences don’t mean that genotypes are irrelevant to individuals’ health. Our phenotypes and health are determined not only by our genetic makeup but also by our environments.<sup>12</sup>

An individual’s phenotype or lived existence is “how social influences become literally embodied into physio-anatomic characteristics that influence health and become expressed in societal disparities in health.”<sup>12</sup> These social influences or **determinants of health** are largely shaped over generations by those in power. Take, for example, the historical housing and urban planning policy practice of redlining.<sup>13</sup> In the 1930s, the US government created maps of hundreds of cities, rating the real estate investment risk of different neighborhoods. Black and immigrant neighborhoods were usually rated the riskiest and outlined in red on city maps. For decades, people in redlined areas were denied access to federally backed mortgages and other credit, fueling vicious cycles of disinvestment that reinforced racial segregation.<sup>14</sup>

Even though it’s been legally banned for half a century, redlining has health consequences that persist today. Redlined areas are typically the hottest neighborhoods in cities because they are concrete “jungles” that hold heat (warming the environment) and have few trees or green spaces that dissipate heat (cooling the environment).<sup>15</sup> During a heat wave, every one degree rise in temperature can increase the risk of dying by 2.5% due to higher incidences of **heart and asthma attacks**.<sup>16,17,18</sup> Because heat leads to ozone creation, air in these racially marginalized neighborhoods is dirtier than air in mostly White areas. Marred by decades of economic disinvestment, redlined communities are often situated near heavy-polluting industries and diesel-choked highways.<sup>19</sup> Air pollution, especially fine particulates such as PM<sub>2.5</sub>, poses a serious threat to human health,<sup>20</sup> and, in California, Black and Brown people are exposed to concentrations of PM<sub>2.5</sub> at least 39% higher on average than those to which White people are exposed.<sup>21</sup>

Compared to racist policies that contribute to poor air quality, state-sanctioned execution is likely not a policy that would be at the forefront of our minds when most of us think about health inequity. Since 1973, 172 people—with slightly less than two-thirds being people of color—have been exonerated and released from death row, which means that one person has been exonerated for every 9 people executed during this time.<sup>22</sup> A recent study found that Black lives matter less, as the execution rate in Georgia for persons sentenced to death during the 1970s was 17 times greater for defendants convicted of killing White victims than for defendants convicted of killing Black victims.<sup>23</sup> While lamenting the 1987 US Supreme Court decision that statistical data revealing racial bias in death penalty cases was insufficient to demonstrate unconstitutional discrimination,<sup>24</sup> retired Justice John Paul Stevens wrote: “that the murder of black victims is treated as less culpable than the murder of white victims provides a haunting reminder of once-prevalent Southern lynchings.”<sup>25</sup>

Given such deadly evidence of racial bias and error, why is there not at least a moratorium on capital punishment until equal justice under law can be delivered in death penalty cases? Even if capital punishment seemingly affecting relatively few individuals can somehow be a justification for not acting, it's part of an expansive and expensive US criminal justice system that **incarcerates** more people than any country and disproportionately more Black and Brown people.<sup>26</sup> While no civilized society can function without public safety and order, how can it come as a surprise that any community can be at peace when its **neighborhoods are chronically deprived** of opportunities and generations of residents are living without hope? Until we reckon with and tear down the intersecting web of racist policies, past and present, a future defined by greater racial justice and health equity will forever be unrealized.

The February and March 2021 issues of the *AMA Journal of Ethics* are dedicated to the topic of racial and ethnic health equity in the United States. This 2-part series is the latest expression of the journal's commitment to breathe continuing life into a humanity-defining movement that demands our sustained attention, critical analyses, and just response. I hope our readers find value and inspiration in the case analyses, policy commentaries, audio and video content, and artwork within these newest health equity issues of the *AMA Journal of Ethics*.

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