

# Editorial

James M. Rippe, MD

## COVID-19 and Health Equity

The coronavirus 2019 (COVID-19) pandemic continues to alter the world we live in. Virtually every person in the United States and around the world has had to make significant changes in their lives and the way we work because of the pandemic. Now with the emergence of the Omicron variant, just when we thought we were making progress with vaccines, it appears that an even more transmissible type of COVID-19 has taken over. Nonetheless, vaccines and boosters are a very significant step forward to forestall or even prevent serious disease. In addition, we are experiencing mandates for stay-at-home orders, mask wearing, sanitizing surfaces, and scrupulous handwashing practices. Many of us have experienced the mixed blessing of working virtually. While remote working allows business to go on to some degree, it also robs us of many aspects of basic human interaction.

Despite all these alterations, the deadly coronavirus continues to spread. As of this writing, there have been over 800 000 fatalities from COVID-19 in the United States.<sup>1</sup> The toll of this deadly virus has been even more severe for disadvantaged members of our society. This makes the issue of health equity a particularly important one in the area of COVID-19 and infectious diseases in general. Both in COVID-19 and in the area of health

disparities, lifestyle modalities can play very important roles.

Before focusing specifically on healthcare disparities, it is important to remember some of the other core principles of lifestyle medicine. I have written about this in multiple other places where I refer to these other issues as “America’s Silent Epidemic.”<sup>2</sup> By a silent epidemic, I

to combat non-communicable diseases.<sup>7</sup> Lifestyle medicine strategies could dramatically reduce mortality from all of these conditions.

Most physicians would agree that these lifestyle-related diseases are important and largely preventable. The medical community, however, has been either absent or ineffective

**“Both in COVID-19 and in the area of health disparities, lifestyle modalities can play very important roles”**

mean that over 650 000 individuals in the United States will die of heart disease this year.<sup>3</sup> The National Institutes of Health estimates that obesity is associated with over 300 000 annual fatalities.<sup>4</sup> Diabetes is listed as a cause of death for over 270 000 individuals each year,<sup>5</sup> and over 480 000 people die each year from cigarette smoking or passive exposure to cigarette smoke.<sup>6</sup> Millions more succumb to these illnesses each year around the world.

When these largely preventable diseases are added up, this silent epidemic takes over twice as many American lives every year as does COVID-19. These conditions are also the basic problems underlying the World Health Organization initiative

in the battle to ameliorate these conditions. In fact, numerous studies have shown that physicians typically discuss issues such as weight management, physical activity, proper nutrition, and even cigarette smoking in less than 40% of clinical encounters with individuals that are seen in their practices.<sup>8</sup>

We can now add COVID-19 to the list of conditions that need to be addressed by lifestyle medicine practitioners and other physicians. There is no question that such conditions as overweight and obesity, hypertension, coronary heart disease (CHD), and diabetes have underlying similarities. In fact, many investigators now feel that inflammation is an underlying

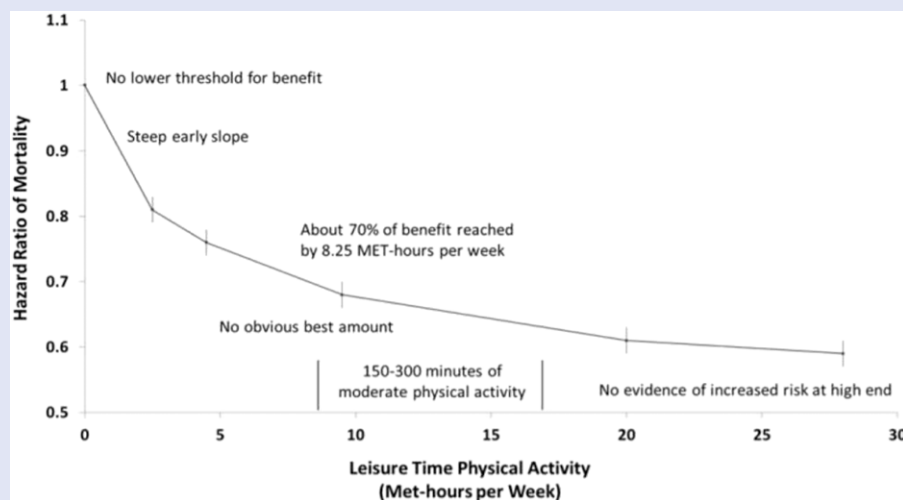
DOI: 10.1177/15598276221081472. UMass Chan Medical School, Worcester, Massachusetts, and Rippe Lifestyle Institute, Shrewsbury, Massachusetts. Address correspondence to: James M. Rippe, MD, Rippe Lifestyle Institute, Shrewsbury, MA 01545; e-mail: [bgrady@rippelifestyle.com](mailto:bgrady@rippelifestyle.com).

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**Figure 1.**

Relationship of moderate-to-vigorous physical activity to all-cause mortality with highlighted characteristics common to studies of this type. Source: All-cause Mortality, Cardiovascular Mortality, and Incident Cardiovascular Disease. Part F. Chapter 6. In 2018 Physical Activity Guidelines Advisory Committee. 2018 Physical Activity Guidelines Advisory Committee Scientific Report. Washington, DC: U.S. Department of Health and Human Services, 2018.



pathophysiologic link that plays an important role in all of these conditions. This is also true of the response to COVID-19 and other infectious diseases. Lifestyle modalities can play a significant role both in lowering inflammation and enhancing the immune system. This is the underlying premise of the article by Hasson et al. in the current issue of the *American Journal of Lifestyle Medicine* (AJLM) which focuses on the important role that regular physical activity can play in helping to combat COVID-19.<sup>9</sup>

There is another important reason which underscores why we need to focus on lifestyle habits and practices for all of our patients but particularly disadvantaged populations. Health disparities have played a prominent role in the alarming racial and ethnic disparities related to COVID-19. Age-adjusted hospitalization rates for COVID-19 among native Americans and black Americans are between 4.5 and 5 times that of white Americans.<sup>10</sup>

Hispanic Americans have been disproportionately affected as well. Hispanic Americans are hospitalized at a rate approximately four times that of white Americans.<sup>10</sup> The mortality of black Americans in a number of cities is more than twice as high as the proportion of black Americans in their geographic areas.

It is now clear that obesity and poor nutritional habits have contributed significantly to the disparities in how COVID-19 has affected Americans. Both obesity and poor nutrition are more common to disadvantaged populations than in more affluent ones.<sup>11</sup> Thus, COVID-19 has drawn a bright line under issues related to health disparities in our country—an area that every physician as well as policy maker needs to seriously address. Several medical organizations including the Institute of Medicine (IOM), the American College of Physicians<sup>12</sup> and the American Heart Association<sup>13</sup> have already articulated positions on health equity. I am pleased that the

American College of Lifestyle Medicine (ACLM) has also joined in this effort with the Health Disparities Solution Summit which was organized by the ACLM's Health Equity Achievement through Lifestyle Medicine interest group. We at AJLM were pleased to publish the action steps which emerged from this summit.<sup>14</sup>

In the area of cardiovascular disease, it is clear that multiple lifestyle measures play important roles in lowering the risk of acquiring or dying from CHD. Hasson and colleagues in this issue of AJLM provide a compelling analysis of ways that increasing physical activity can play an important role in lowering the risk of all-cause mortality. This is also one of the major messages from the recently released Physical Activity Guidelines for Americans 2018.<sup>15</sup> I have also written extensively on this topic.<sup>16,17</sup> It is also featured in both the third edition of the comprehensive *Lifestyle Medicine* textbook that I


edit<sup>18,19</sup> and will play an even more prominent role in the fourth edition of this textbook which will be published in 2023.

Let me reiterate a few of the important statics related to physical activity and risk of heart disease. Compared to those who are physically active, the risk of cardiovascular disease in sedentary individuals is 150–240% higher.<sup>20</sup> In other words, individuals who chose a sedentary lifestyle essentially double their risk of heart disease. This is the same increased risk that individuals accept when they smoke a pack of cigarettes a day.<sup>21</sup> Unfortunately, inactivity is 4–5 times as prevalent in our increasingly sedentary country as is the dangerous habit of smoking cigarettes. Recent data suggest that 15% of individuals in the United States still smoke a pack of cigarettes a day. However, 60%, according to CDC criteria, are truly inactive. Even relatively low levels of physical activity would significantly reduce the risk of heart disease. This is illustrated in a figure taken from the Physical Activity Guidelines for Americans Report which is listed here (Figure 1).

As this figure illustrates, regular physical activity significantly lowers the risk of all-cause mortality. And it does not take a lot of physical activity to yield significant benefits. As this figure depicts, individuals who follow the CDC and PAGA 2018 guidelines of 150 minutes of moderate physical activity per week cut their risk of all-cause mortality in half. But even individuals who engage in physical activity as little as 30 minutes per week reduce their risk of all-cause mortality by 20%.<sup>15</sup> The reason for these powerful benefits is that regular physical activity plays an important role in reducing the risk of heart disease, diabetes, pre-diabetes, the metabolic syndrome, cancer, and even helps maintain a healthy weight.

If there is even any silver lining in the COVID-19 pandemic, it may be to help the physician community and the public at large understand that positive lifestyle habits and actions profoundly impact both short- and long-term quality of life and even life itself. In addition to the benefits which are well known for lifestyle habits and actions to lower the risk of various metabolic disease such as heart disease, diabetes, and the metabolic syndrome, we can now add COVID-19 and infectious disease, in general, to the list of important health conditions where lifestyle measures can mean a difference between life and death.

The time has come for those of us who care passionately about lifestyle medicine and the health of our country to shout this message from the roof tops!

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