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## DECREASED LIFE EXPECTANCY IN THE UNITED STATES

No matter the resource you choose to evaluate, it is evident that the life expectancy here in the United States is declining at a rate that has not been seen in nearly 100 years. A quick search on the internet and there are a multitude of resources that can provide the statistics for the decline based on age and ethnicity, as well as the specific reasons for increases in deaths at younger ages. The CDC releases a yearly report to address the life expectancy trends. Many universities and medical boards release reports, articles, and ideas for improvements. Research papers and studies also more critically evaluate the numbers and compare the United States to its international counterparts. Altogether these statistics and resources are critical to evaluate to promote health and wellness and to better our country.

It is first important to evaluate and understand the trends the CDC has seen in the past couple of years. In July of 2021, the CDC released a report revealing that from 2019 to 2020 the life expectancy at birth had decreased a year and half, from 78.8 years to 77.3 years of age. This single year drop was the largest single year decline since 1942 in the WWII era. The CDC reports the decline to be attributed 74% to COVID-19 deaths as the pandemic impacted the entire country. 11% of the decline was attributed to an increased number of deaths

from accidents and unintentional injuries, with one third of this percentage accounted for by drug overdose deaths. A few other contributing factors were listed including - homicide (3.1%), diabetes (2.5%), and chronic liver disease or cirrhosis (2.3%).<sup>1</sup>

Life expectancy continued to drop in the following year according to the CDC's report that was released in August of 2022 to evaluate the numbers from 2021. From 2020 to 2021, the life expectancy at birth decreased almost another year, from 77.0 years to 76.1 years of age. 50% of this decline was attributed to COVID-19 deaths. An increased percentage of 16% was attributed to deaths from accidents or unintentional injuries, in which half were reported to be from drug overdoses. The other categories that were notable included: heart disease (4.1%), chronic liver disease or cirrhosis (3.0%), and suicide (2.1)%. Addition of this drop to the decline seen from 2019-2020 resulted in a total estimated 2.7-year decrease in life expectancy over the 2-year period, according to the 2022 CDC Report. This was the largest reported drop in life expectancy over a 2-year period since the span of 1921-1923.<sup>2</sup> Evaluating the trends and especially focusing on the causes of deaths leading to the decreased life expectancy is extremely important, especially to focus on the future of our country and how we can better serve patients.

Another important aspect to evaluate when discussing the life expectancy of the United States is to compare our numbers with those of our international counterparts. Evaluating how we compare to other countries can help us learn from international partners for procedures and processes to better our healthcare. Jessica Y Ho, PhD, released a research article in The Journals of Gerontology Series B: Psychological Sciences and Social Sciences entitled "Causes of America's Lagging Life Expectancy: An International Comparative Perspective." This article compared the American age-specific death rates with 18 other high-income countries



around the world. 16 causes of death were evaluated to better understand what is leading to the decline in life expectancy in the United States. The study did only focus on data from 2008 to 2018. At the end point in 2018 though, it was found that men and women had a declined life expectancy of 5.18 and 5.82 years respectively from the world's leaders, as well as a decline of 3.60 and 3.48 years compared to the average of the other high-income countries studied. These are rather large values to consider. One of the big takeaways from this study was that the U.S. has been able to maintain comparable performances to other countries in terms of life expectancy at an older age (85 years old), but more focus needs to be placed on life expectancy for those of younger age groups (less than 50 years old). The United States shortfall occurs in these younger age groups, especially between the ages of 25 and 44. The shortfall in this age group is largely attributed to a high burden of injury-related deaths, especially for men, including drug overdoses, firearm deaths, and car accidents. Women's contributions to the declining life expectancy are attributed to Alzheimer's disease along with other mental disorders. Lung cancers and respiratory diseases were also noted for women, as a result of a delayed smoking epidemic for this population compared to that of the men. Circulatory diseases were also of special note to both men and women in the U.S. but were of concern in other countries as well.<sup>3</sup> Understanding the specific areas the United States is falling short is very important. These are areas that the U.S. must further evaluate to determine how we can better treat our patients and the public.

Johns Hopkins Bloomberg School of Public Health investigated the causes for decreased life expectancy. Following the evaluation, "Reversing the Decline: 10 Ideas to Improve Life Expectancy" was published from the

Bloomberg American Health Initiative. The recommendations set forth were focused on some of the leading causes of the life expectancy decline. The report focused on: COVID-19, overdose, gun violence, teen suicide, motor vehicle crashes, heart disease, stroke, diabetes, and heat and other weather-related emergencies. Many of the recommendations focus on how the federal government can work to create laws or better support patients who are affected by these causes. To summarize a few, the committee encourages additional funding for COVID-19 for public health outreach, expanding harm reduction services, investing more money in accessible and comprehensive health care for adolescents in the school setting, improving and implementing driver impairment detection technology, encouraging sodium reductions in processed foods, and investing in food infrastructures.<sup>4</sup> These are just a few of the ideas set forth that could be supported in order to improve on the current shortfall in life expectancy.

Other areas that should be addressed in the United States to help combat the decreasing life expectancy include the social determinants of health. Dr. Robert Shmerling touched on these aspects in a publication on Harvard Health Publishing at Harvard Medical School. Dr. Shmerling brought special attention to the fact that alarming disparities are present between groups in terms of life expectancy, as well. According to the article, in the past 2 years the life expectancy for the American Indian and Alaska Native population has decreased by 6.6 years. For Hispanic Americans, the decrease is noted as 4.2 years, and for Black Americans 4.0 years. It was noted that these disparities are likely due to social determinants of health, including poverty, food insecurity, and access to healthcare.<sup>5</sup> These are also areas that need to be addressed to decrease the disparities among groups, but also improve the country as a



whole. Improvements in life expectancy will not occur if we do not focus on all aspects that contribute to the health of patients, including the social determinants of health.

Overall, the numbers we see are staggering, whether just looking at the decrease in the past couple of years in the United States alone or when comparing the numbers to those of other developed nations. The reports all aligned in terms of the most notable causes for the decreasing life expectancy. We need to look into and understand these issues in order to attempt to find better solutions for the American public to improve health overall.

## References

1. Life Expectancy in the U.S. Declined a Year and Half in 2020 [Internet]. Atlanta (GA); Centers for Disease Control and Prevention/National Center for Health Statistics; 21 July 2021 [cited 2023 Apr 20]. Available from: [https://www.cdc.gov/nchs/pressroom/nchs\\_press\\_releases/2021/202107.htm](https://www.cdc.gov/nchs/pressroom/nchs_press_releases/2021/202107.htm).
2. Life Expectancy in the U.S. Dropped for the Second Year in a Row in 2021 [Internet]. Atlanta (GA); Centers for Disease Control and Prevention/National Center for Health Statistics; 31 Aug 2022 [cited 2023 Apr 20]. Available from: [https://www.cdc.gov/nchs/pressroom/nchs\\_press\\_releases/2022/20220831.htm](https://www.cdc.gov/nchs/pressroom/nchs_press_releases/2022/20220831.htm).
3. Ho JY. Causes of America's Lagging Life Expectancy: An International Comparative Perspective. *J Gerontol B Psychol Sci Soc Sci*. 2022 May; 77(Suppl 2): S117-26.
4. Bloomberg American Health Initiative. Reversing the Decline: 10 Ideas to Improve Life Expectancy. Baltimore (MD); Johns Hopkins Bloomberg School of Public Health; 6 Dec 2022 [cited 2023

Apr 20]. Available from:

[https://americanhealth.jhu.edu/sites/default/files/website-media/resources/LifeExpect\\_Report.pdf](https://americanhealth.jhu.edu/sites/default/files/website-media/resources/LifeExpect_Report.pdf).

5. Shmerling RH. Why life expectancy in the US is falling: COVID-19 and drug overdoses are the biggest contributors. Cambridge (MA); Harvard Health Publishing: Harvard Medical School; 20 Oct 2022 [cited 2023 Apr 20]. Available from: <https://www.health.harvard.edu/blog/why-life-expectancy-in-the-us-is-falling-202210202835#:~:text=The%20social%20determinants%20of%20health,contribute%20to%20lower%20life%20expectancy>.