

Reversing the Decreasing Life Expectancy: A National Health Priority



by Kate Lichtenberg, DO

The Center for Disease Control and Prevention (CDC)'s National Center for Health Statistics (NCHS) published a startling report in July 2021 documenting a decrease in the life expectancy of Americans to the lowest level since 2003.^{1,2} This was the largest one-year drop since World War II. Not only did life expectancy fall, but the disparity between men and women continued to widen as it has since 2010.

Changes in the U.S. Life Expectancy Rates

The decrease in life expectancy across the entire U.S. population was 1.5 years. Men had a decline of 1.8 years from 76.3 years to 74.5 years. Women experienced a decline of 1.2 years from 81.4 years to 80.2 years.² The gap between men (shorter life) and women (longer life) increased from 4.8 years in 2010 to 5.7 years in 2020.

The leading causes of death for 2020 were heart disease, cancer, and COVID.³ Seventy-four percent of the decline in life expectancy was attributed to COVID while accidental and unintentional injuries contributed to 11% of the decline, homicide contributed 3.1%, diabetes contributed 2.5%, and chronic liver disease and cirrhosis contributed 2.3%.^{1,2} The overall decline of 1.5 years would have been greater if there had not been offsetting effects of declining mortality due to cancer, chronic lower respiratory diseases, heart disease, suicide, and certain perinatal conditions.²



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PERSPECTIVE

Across racial groups, there were differences in the decline as well as the reasons for lower life expectancy. The Hispanic population suffered the largest decline in life expectancy of 3 years with 90% of the decline due to COVID mortality. Unintentional injuries, diabetes, homicide, and chronic liver disease and cirrhosis accounted for the remaining reduction.²

The non-Hispanic Black population had the second largest drop of 2.9 years. COVID accounted for 59.3% of the decrease followed by unintentional injuries, homicide, heart disease, and diabetes.²

The non-Hispanic White population experienced the smallest decline in life expectancy of 1.2 years. Excess mortality due to COVID contributed to 67.9% of the decrease followed by unintentional injuries, chronic liver disease and cirrhosis, diabetes, and homicide.²

Changes in the Missouri Life Expectancy Rates

The Missouri Department of Health and Senior Services published a report in August 2021 providing details on the decrease in life expectancy for Missourians.⁴ The overall decline was 2.1 years with male life expectancy dropping 2.3 years to 72.3 and females dropping 1.9 years to 78.4 years. The male to female gap is now 6.1 years, the largest since 1997. The report did not include information on differences in racial groups.

Deaths in Missouri outnumbered births for the first time since officials began tracking this statistic in 1911. Deaths increased by 18.9% and broke the record of an increase in deaths in a single year. The previous record was a 13.3% increase that occurred during the 1918 Influenza Pandemic. Approximately 66% of the increase in deaths in Missouri was due to COVID. Unintentional injuries, diabetes, nephritis, pneumonia and influenza, stroke and heart disease contributed to the remaining increase in deaths.

Drug overdose deaths (accidental poisonings) were the primary contributor to the increase in unintentional injuries. Deaths related to opioid use along with suicides and homicides increased by more than 25%. Deaths in this category have more than doubled since 2010. The report speculated that COVID may have contributed to the increase in these deaths since many people were more isolated and may have had problems accessing services.

The report also highlighted the record 28% increase in homicides since 2019. The 802 residents who died by homicide in 2020 is also nearly double the number in 2010. The number of suicides remained relatively stable, but is up 30% since 2010. Firearms continue to be a factor in both homicides and suicides and firearm-related deaths were up 14% between 2019 and 2020.

Working-Age Mortality

The National Academies of Sciences, Engineering, and Medicine released a report in 2021 detailing a decline in U.S. life expectancy from 2015 to 2017. This decline was primarily due to an increase in mortality among working age adults 25- to 64-years old.⁵ Drug poisoning and alcohol induced deaths, suicide, and cardiometabolic diseases were identified as the causes of death most responsible for this increase.

Life expectancy disparities are widening based on race/ethnicity, socioeconomic status, gender, and geography (rural versus urban). The years of progress in closing these gaps are in danger of being wiped out completely and even moving backward due to excess COVID mortality.

Addressing Causes of Excess Mortality

There will always be a need for individuals to reduce unhealthy behaviors. However, implementing new public policies are likely the best opportunity to increase life expectancy. These public policies must address the immediate causes of morbidity and mortality, but also look at the upstream contributors including living conditions, access to nutritious food, and access to medical care.⁵

Improvements in life expectancy and decline of infectious disease throughout the 20th century were aided by medical advances. Jeff Levin, PhD, MPH believes, “a general improvement in the quality of life,” was chiefly responsible.⁶ He also states: “The political will to address social-structural and environmental causes of health disparities in vulnerable populations is not easily manifested.”⁶ Until society finds that will, it will be difficult to overcome further life expectancy decreases.

COVID

The emergence of the COVID virus has tested Public Health in the U.S. in a way not seen in

decades. Short-term studies, the changing and, sometimes conflicting recommendations, have generated significant confusion and mistrust in the general public. The unprecedented speed of research led to several effective and FDA approved vaccines but mistrust and misunderstanding have resulted in poor vaccination rates in many populations.

It is of paramount importance to learn from the mistakes of this pandemic in order to better manage endemic COVID and to prepare for future pandemics.

Accidental and Unintentional Injuries

The Substance Abuse and Mental Health Services Administration (SAMHSA) defines harm reduction as a “proactive and evidence-based approach to reduce the negative personal and public health impacts of behavior associated with alcohol and other substance use at both the individual and community levels.”⁷

Connecting individuals with a substance use disorder to services that offer health care, social services, and treatment have been shown to decrease the spread of infectious disease, improve physical health, and reduce overdose deaths. Examples of harm reduction programs include distribution of naloxone to those who use opioids and needle exchange programs. Under consideration in the 2022 session, Missouri Senate Bill 690 would make needle exchange programs legal in the state.

Gun violence has been called a public health emergency by many organizations and individuals. Gun safety becomes even more urgent after the CDC reported in April 2022 that in 2020, firearm-related injuries became the leading cause of death in the 1- to 19-year-old age group.⁸ Finding the balance between the rights of gun owners and protecting those at risk of harm will not be easy. In the last 30 years, policy changes have been mostly at the state rather than the federal level. Three interventions in particular have been supported across the political continuum.⁹

Safe storage sites for firearms decreases the number of firearm suicides and unintentional shooting by 8-19%. Twenty-nine states and the District of Columbia have implemented laws supporting this. The current evidence only supports this measure for children and adolescents. Continued research is needed to see if this extends to adults.

Virginia and Washington have laws that permit individuals to confidentially and voluntarily restrict

their ability to purchase firearms from dealers. Those individuals may remove their names if they change their minds. A delay period is in place so the removal is not immediate.

Extreme risk protection orders, known also as red flag laws, have been implemented in multiple states. This entails a judicial process whereby individuals are restricted in their ability to purchase or possess a firearm if they are deemed at extreme risk to harm themselves, others, or both. There is considerable research ongoing on extreme risk protection orders and preliminary data suggests decreases in suicide risk of 5-10%.

Diseases Related to Obesity

Type II diabetes, cardiovascular diseases, and some cancers are related to obesity. Over the past 30 years, obesity rates have continued to climb at an alarming rate. Personal responsibility is only one part of the solution to this. There are many societal factors that need to be addressed at the community, state, and national levels in order to decrease the rates of obesity and the associated morbidity and mortality.

Food insecurity is defined as “the state of being without reliable access to a sufficient quantity of affordable, nutritious food.”¹⁰ During 2020, 13.8 million U.S. households experienced food insecurity.¹¹ Calorie insufficiency initially prompted programs like food stamps and the Special Supplementation Nutrition Program for Women, Infants, and Children (WIC). The paradigm has now shifted to nutrition security rather than calorie security. Nutrition security is “having consistent access, availability, and affordability of foods and beverages that promote well-being and prevent...disease.”¹⁰ Food deserts also need to be addressed and eliminated. If a gas station or a dollar store are the only options for grocery shopping, calories may be obtained but at the cost of nutrition.

Having a safe place to exercise is also key to decreasing obesity rates. The ability to safely walk in your neighborhood is associated with an increase in physical activity and a decrease in chronic conditions.¹² Socioeconomic factors also impact walkability. Low-income Black and Latinx neighborhoods have lower Walk Scores than most low-income White neighborhoods.¹² Investment in the built environment is critical to impacting this.

Guidelines recommend 150 minutes of exercise

per week. That number can be discouraging for many individuals. Emerging evidence has shown that light-intensity physical activity may offer health benefits especially to groups that are inactive.¹³ Delivering the message that some activity is better than no activity may result in more at-risk individuals starting an exercise program.

Conclusion

The U.S. currently ranks #46 in the world for life expectancy.¹⁴ There is a long road ahead to reverse the recent declines in life expectancy. Engaging individuals to start exercising, lose weight, eat better, and stop smoking and using drugs are all needed. Proven social and public health policies at the community, state, and national levels are necessary and may be equally or more effective than individual efforts.

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