

## Changes in Life Expectancy at Birth, 2010–2018

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This NCHS *Health E-Stat* provides information on changes in life expectancy at birth from 2010 through 2018 and the causes of death that contributed to the changes in life expectancy between 2014 and 2017, and between 2017 and 2018.

From 2010 through 2014, life expectancy increased 0.2 years for the total population and increased 0.3 years for males and females (Table 1). From 2014 through 2017, life expectancy decreased 0.3 years for the total population, 0.4 years for males, and 0.2 years for females (1). However, between 2017 and 2018, life expectancy increased 0.1 year for the total population, males, and females (2). Life expectancy in 2018 was at the level most recently reached in 2015 and 2016 for the total population, in 2016 for males, and in 2013 by females, which was 0.2 years below the peak in life expectancy for the total population in 2014, 0.3 years below the peak for males in 2014, and 0.1 year below the peak for females in 2014.

The change in life expectancy can be separated into positive and negative contributions to specific causes of deaths. The positive contributions resulted from declines in cause-specific mortality; that is, when mortality declines, life expectancy increases. The negative contributions resulted from increases in cause-specific mortality; that is, when mortality increases, life expectancy declines.

The decrease in life expectancy for 2014–2017 for the total population (0.3 years) was mostly due to increases in mortality due to unintentional injuries (50.6% of the negative contribution), Alzheimer disease (10.7%), and suicide (7.8%). The negative contribution to the decline in life expectancy was offset by decreases in mortality for cancer (63.4%), heart disease (8.5%), and Influenza and pneumonia (6.7%) (Table 2). For males, life expectancy decreased by 0.4 years due to increases in mortality mostly from unintentional injuries (52.5%). The offsetting decrease in mortality was due mostly to declines for cancer (65.3%). For females, life expectancy decreased by 0.2 years due to increases in mortality mostly from unintentional injuries (40.1%). The offsetting decrease in mortality was due mostly to declines for cancer (62.7%).

The increase in life expectancy between 2017 and 2018 for the total population (0.1 year) was due mostly to decreases in mortality from cancer (30.2% of the positive contribution), unintentional injuries (25.4%), and Chronic lower respiratory diseases (9.3%). The positive contributions to the change in life expectancy was offset by increases in mortality for Influenza and pneumonia (27.4%), suicide (12.3%), and nutritional deficiencies (10.5%) (Table 3). For males, life expectancy increased by 0.1 year due to decreases in mortality mostly from unintentional injuries (32.9%) and cancer (30.8%). The offsetting increase in mortality was due mostly to Influenza and pneumonia (24.4%) and suicide (11.6%). For females, life expectancy

increased by 0.1 year due to decreases in mortality mostly from cancer (27.9%) and unintentional injuries (16.1%). The offsetting increase in mortality was due mostly to Influenza and pneumonia (28.3%) and nutritional deficiencies (15.2%).

## Data source and methods

Data are from the National Vital Statistics System mortality file. A life table partitioning technique was used to estimate causes of death contributing to changes in life expectancy between 2014 and 2017 and between 2017 and 2018 (3–5). Cause-of-death categories (1) and life table methodology are explained in separate reports (1,6).

## References

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## Suggested citation

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**Table 1. Life expectancy at birth, by sex: United States, 2010–2018**

Year	Total	Male	Female
2010	78.7	76.2	81.0
2011	78.7	76.3	81.1
2012	78.8	76.4	81.2
2013	78.8	76.4	81.2
2014	78.9	76.5	81.3
2015	78.7	76.3	81.1
2016	78.7	76.2	81.1
2017	78.6	76.1	81.1
2018	78.7	76.2	81.2

SOURCE: NCHS, National Vital Statistics System, Mortality.

**Table 2. Percent contribution to the changes in life expectancy, by cause of death and sex: United States, 2014–2017**

Total		Male		Female	
Cause of death	Percent	Cause of death	Percent	Cause of death	Percent
Positive contribution					
Cancer	63.4	Cancer	65.3	Cancer	62.7
Heart disease	8.5	Viral hepatitis	7.2	Heart disease	8.2
Influenza and pneumonia	6.7	Influenza and pneumonia	7.0	Influenza and pneumonia	6.3
Viral hepatitis	6.3	HIV disease	4.7	Viral hepatitis	5.3
HIV disease	4.0	Heart disease	3.7	Perinatal conditions	5.2
Residual	11.2	Residual	12.1	Residual	12.3
Positive total	100.0	Positive total	100.0	Positive total	100.0
Negative contribution					
Unintentional injuries	50.6	Unintentional injuries	52.5	Unintentional injuries	40.1
Alzheimer disease	10.7	Suicide	8.8	Alzheimer disease	22.7
Suicide	7.8	Homicide	8.6	Chronic lower respiratory diseases	4.6
Homicide	7.5	Alzheimer disease	5.9	Stroke	4.3
Diabetes	2.8	Diabetes	3.3	Suicide	3.9
Residual	20.6	Residual	20.9	Residual	24.4
Negative total	100.0	Negative total	100.0	Negative total	100.0

NOTES: The life expectancy for the total population decreased 0.3 years between 2014 and 2017. The life expectancy for males decreased 0.4 years between 2014 and 2017. The life expectancy for females decreased 0.2 years between 2014 and 2017.

SOURCE: NCHS, National Vital Statistics System, Mortality.

**Table 3. Percent contribution to the changes in life expectancy, by cause of death and sex: United States, 2017–2018**

Total		Male		Female	
Cause of death	Percent	Cause of death	Percent	Cause of death	Percent
Positive contribution					
Cancer	30.2	Unintentional injuries	32.9	Cancer	27.9
Unintentional injuries	25.4	Cancer	30.8	Unintentional injuries	16.1
Chronic lower respiratory diseases	9.3	Homicide	8.4	Heart disease	13.3
Heart disease	7.0	Chronic lower respiratory diseases	6.0	Chronic lower respiratory diseases	12.7
Homicide	4.7	Viral hepatitis	3.0	Stroke	4.4
Residual	23.4	Residual	18.9	Residual	25.6
Positive total	100.0	Positive total	100.0	Positive total	100.0
Negative contribution					
Influenza and pneumonia	27.4	Influenza and pneumonia	24.4	Influenza and pneumonia	28.3
Suicide	12.3	Suicide	11.6	Nutritional deficiencies	15.2
Nutritional deficiencies	10.5	Chronic liver disease and cirrhosis	8.3	Suicide	7.7
Chronic liver disease and cirrhosis	8.5	Kidney disease	8.2	Parkinson disease	7.4
Parkinson disease	7.2	Diabetes	7.0	Chronic liver disease and cirrhosis	6.2
Residual	34.1	Residual	40.5	Residual	35.2
Negative total	100.0	Negative total	100.0	Negative total	100.0

NOTE: The life expectancy for the total, male, and female populations increased 0.1 year between 2017 and 2018.

SOURCE: NCHS, National Vital Statistics System, Mortality.