



# Allegheny County Mortality Report: 2016

Updated December 2019

A publication of the

Allegheny County Health Department  
Bureau of Assessment, Statistics & Epidemiology  
542 Fourth Avenue, Pittsburgh, PA 15219

Karen Hacker, MD, MPH, Director

Report prepared by:

Kristin Selker, MPH, Statistical Administrator



## TABLE OF CONTENTS

Executive Summary.....	1
Mortality Report Summary and Illustrations.....	2-21
Total Deaths.....	3
Leading Causes of Deaths.....	3
Mortality by Sex.....	4
Mortality by Race.....	4-5
Mortality by Sex and Race.....	5-6
Infant Mortality.....	6-7
Neonatal Mortality.....	7
Post-Neonatal Mortality.....	7
Mortality Illustrations.....	8-21
Technical Notes.....	22-24



## LIST OF TABLES

<b>TABLE 1.</b>	Number of total deaths, percent of total deaths, age-adjusted mortality rates, 95% confidence intervals, and percent change for leading causes of death: Allegheny County, 2015 and 2016.....	10
<b>TABLE 2.</b>	Age-adjusted mortality rate for leading causes of death: Allegheny County, 1970-2016.....	10
<b>TABLE 3.</b>	Leading causes of death rank, number of deaths, age-adjusted mortality rates, and 95% confidence intervals for county leading cause of death: Allegheny County, 2015 and 2016.....	12
<b>TABLE 4.</b>	Median age (in years) at death for county leading causes of death by sex: Allegheny County, 2015 and 2016.....	12
<b>TABLE 5.</b>	Male-to-female age-adjusted mortality rate ratios: Allegheny County, 2014-2016.....	12
<b>TABLE 6.</b>	Leading causes of death rank, number of deaths, age-adjusted mortality rates, and 95% confidence intervals for county leading cause of death by race: Allegheny County, 2015 and 2016.....	14
<b>TABLE 7.</b>	Black-to-White age-adjusted mortality rate ratios: Allegheny County, 2014-2016.....	14
<b>TABLE 8.</b>	Median age (in years) at death for county leading causes of death by race: Allegheny County, 2015 and 2016.....	14
<b>TABLE 9.</b>	Leading causes of death rank, number of deaths, age-adjusted mortality rates, and 95% confidence intervals for county leading cause of death for females: Allegheny County, 2015 and 2016.....	16
<b>TABLE 10.</b>	Leading causes of death rank, number of deaths, age-adjusted mortality rates, and 95% confidence intervals for county leading cause of death for males: Allegheny County, 2015 and 2016.....	16
<b>TABLE 11.</b>	Black-to-White age-adjusted mortality rate ratios by sex: Allegheny County, 2014-2016.....	17
<b>TABLE 12.</b>	Median age (in years) at death for county leading causes of death by sex and race: Allegheny County, 2015 and 2016.....	17
<b>TABLE 13.</b>	Neonatal mortality number and rate by race: Allegheny County, 1990-2016.....	19
<b>TABLE 14.</b>	Post-Neonatal mortality number and rate by race: Allegheny County, 1990-2016.....	21



## LIST OF FIGURES

<b>FIGURE 1.</b>	All-cause age-adjusted mortality rate: Allegheny County, 1970-2016.....	8
<b>FIGURE 2.</b>	All-cause age-adjusted mortality rate: Allegheny County, Pennsylvania, and the United States, 2000-2016.....	8
<b>FIGURE 3.</b>	Change in number of deaths for leading causes: Allegheny County, 2015 and 2016.....	9
<b>FIGURE 4.</b>	Age-adjusted mortality rate for leading causes of death: Allegheny County, 2015 and 2016.....	9
<b>FIGURE 5.</b>	All-cause age-adjusted mortality rate by sex: Allegheny County, 1970-2016.....	11
<b>FIGURE 6.</b>	All-cause age-adjusted mortality rate by race: Allegheny County, 1970-2016.....	13
<b>FIGURE 7.</b>	Age-adjusted mortality rate for leading causes of death by race: Allegheny County, 2016.....	13
<b>FIGURE 8.</b>	All-cause age-adjusted mortality rate by race: Allegheny County, 1970-2016.....	15
<b>FIGURE 9.</b>	Infant mortality rate by race and geography: Allegheny County and Pennsylvania, 1999-2016.....	18
<b>FIGURE 10.</b>	Neonatal mortality rate by race and geography: Allegheny County and Pennsylvania, 1999-2016.....	18
<b>FIGURE 11.</b>	Post-neonatal mortality rate by race and geography: Allegheny County and Pennsylvania, 1999-2016.....	20



## EXECUTIVE SUMMARY

The 2016 Allegheny County Mortality Report contains final 2016 mortality data including: age-adjusted mortality rates from leading causes of death examined by sex and race, as well as infant, neonatal, and post-neonatal mortality rates. Where possible, data were compared between Allegheny County and Pennsylvania, as well as examined for trends through 2016. Relevant data were compared to the Healthy People 2020 goals set forth by the U.S. Department of Health and Human Services.

In 2016, there were 13,804 deaths in Allegheny County, resulting in an age-adjusted mortality rate for all causes of 787.1 per 100,000. This rate was higher than that of Pennsylvania (768.4 per 100,000) and the United States (728.8 per 100,000) in the same year.

### Major findings of the 2016 Allegheny County Mortality Report include:

- Diseases of the heart and malignant neoplasms were the first and second leading causes of death, respectively, in 2016. These two diseases accounted for 45.6% of all deaths in 2016.
- The number of deaths due to diseases of the heart and malignant neoplasms decreased in 2016.
- The age adjusted rate due to unintentional injuries significantly increased from 2015 (56.6 per 100,000) to 2016 (75.0 per 100,000).
- From 1970 through 2016, the county age-adjusted rate for intentional self-harm increased to the highest rate in recent history (13.9 per 100,000).
- Gender disparities have remained consistent for Allegheny County, with a male-to-female age-adjusted mortality ratio of 1.5 since 2014.
- The largest male-to-female disparities by cause in 2016 were for deaths due to assault (5.2), suicide (3.0), Parkinson's disease (2.4), and unintentional injuries (2.2); males had a higher age-adjusted mortality rate for all causes except Alzheimer's disease (0.7).
- The median age of death was older for females for all causes of mortality except for chronic liver disease and cirrhosis.
- The largest racial disparities by cause of death include: assault (19.6), nephritis, nephrotic syndrome and nephrosis (3.0), diabetes mellitus (1.9), cerebrovascular disease (1.7), and diseases of the heart (1.5).
- The largest differences in median age at death by race were: influenza and pneumonia (18 yrs.), suicide (15 yrs.), diseases of the heart (12 yrs.), and cerebrovascular disease (12yrs.).
- The mortality rate from Alzheimer's disease decreased among black population from 273.8 per 100,000 in 2016 to 15.5 per 100,000. Alzheimer's disease was the only cause of death which the black population had an older median age at death.
- In 2016, there was a significant increase in all-cause mortality for black males. This increase was driven by the significant rise in the rate of unintentional injury deaths for the population.
- The mortality rate for cancer decreased for black females to 159.2 per 100,000 in 2016. The decreased rate reduced the racial disparity between black and white females from 1.4 in 2015 to 1.1 in 2016.
- The infant mortality rate in the county decreased to 5.96 per 1,000 live births. However, racial disparities persisted with a rate for black infants 4.5 times higher than that of white infants.
- Neonatal and post-neonatal mortality have remained relatively stable with a rate of 4.4 per 1,000 and 1.5 per 1,000 respectively.



**2016 ALLEGHENY COUNTY  
MORTALITY REPORT  
SUMMARY AND ILLUSTRATIONS**



## MORTALITY SUMMARY

### Deaths

The 2016 the Allegheny County age-adjusted mortality rate of 787.1 per 100,000 from all causes was larger than the rate for Pennsylvania (768.4 per 100,000 standard population) and for the United States (728.8 per 100,000 standard population). While this rate has decreased overall for the county, state, and nation since 2000, Pennsylvania and Allegheny County saw an increase in 2016.

### Leading Causes

There were 15 leading causes of death evaluated in Allegheny County: 1) diseases of the heart, 2) malignant neoplasms (cancers), 3) accidents (unintentional injuries) 4) chronic lower respiratory diseases, 5) cerebrovascular diseases, 6) Alzheimer's disease, 7) diabetes mellitus, 8) influenza and pneumonia, 9) nephritis, nephrotic syndrome and nephrosis, 10) septicemia, 11) chronic liver disease and cirrhosis, 12) intentional self-harm (suicide), 13) Parkinson's disease, 14) pneumonitis due to solids and liquids, and 15) assault (homicide).

Diseases of the heart and malignant neoplasms are the first and second leading causes of death, respectively, in Allegheny County. These two diseases accounted for 45.6% of all deaths in 2016. There were 121 fewer deaths from diseases of the heart and 36 fewer deaths due to malignant neoplasms in 2016 compared to 2015. Other notable changes in number of deaths by cause from 2015 to 2016 include:

- An additional 207 deaths due to unintentional injuries in 2016.
- 61 more deaths due to chronic lower respiratory diseases and 34 more deaths from cerebrovascular disease.
- A decrease of 74 deaths due to influenza and pneumonia in 2016.

The age-adjusted mortality rate decreased for deaths due to diseases of the heart and malignant neoplasms in 2016 compared to 2015. Other important changes in age-adjusted mortality rates include:

- The age-adjusted mortality rate due to unintentional injuries significantly increased by 32.5%, from 56.6 per 100,00 in 2015 to 75.0 per 100,000 in 2016.
- The age-adjusted mortality rate due to influenza and pneumonia fell by 20.5%, from 17.1 per 100,000 to 13.6 per 100,000 in 2016.
- Age-adjusted rates for chronic lower respiratory diseases, cerebrovascular disease, diabetes mellitus, intentional self-harm, Parkinson's disease, and pneumonitis due to solids and liquids slightly increased.
- Age-adjusted rates slightly decreased for Alzheimer's disease, assault, and nephritis, nephrotic syndrome and nephrosis.
- Rates for intentional self-harm (suicide) and unintentional injuries have continued to climb since 1970 reaching their highest rates since yearly calculations began at the county level.
- Age-adjusted rates for malignant neoplasms and influenza and pneumonia have declined since 1970 reaching a county low since yearly calculations began.



### **Mortality by Sex**

From 1970 through 2016, the all-cause age-adjusted mortality rate for both males and females has trended downward. In 2016, the number of deaths due to all causes was 7,051 for females and 6,753 for males. The age-adjusted rate for females slightly decreased to 651.6 per 100,000 from 652.9 per 100,000 in 2015. Males experienced an increase in the age-adjusted rate reaching 960.1 deaths per 100,000, compared to 947.4 per 100,000 in 2015. The rate for males has been consistently higher than that of females with the age-adjusted male-to-female mortality rate ratio remaining at 1.5 since 2014.

- In 2016, the age-adjusted mortality rate due to unintentional injuries among males significantly increased to 103.2 per 100,000 from 75.2 per 100,000. The rate for males was 2.2 times that of females (47.8 per 100,000). Females had a notable but not a significant increase in the rate of accidental deaths, their median age of death from unintentional injuries decreased by 12.5 years to 55 years of age.
- In 2016 the mortality ratio for the rate of deaths due to suicides decreased from 4 in 2015, to 3. However, this decrease was due to a rise in the rate for females to 7.1 deaths per 100,000. Compared to 2015, the median age of death from suicides in females decreased from 53 years to 48 years of age.
- The age-adjusted mortality rate from homicides for males was 14.8 deaths per 100,000 in 2016. This was a slight decrease from the 2015 rate of 17.3 per 100,000. Rates for females slightly increased to 2.9 deaths per 100,000 in 2016. The ratio decreased from 9.6 in 2015 to 5.2 in 2016.
- The rate of death from cancers was 1.7 times higher for males with a rate of 202.2 per 100,000 compared to 142.5 per 100,000 for females.
- Age-adjusted rates for Alzheimer's disease decreased for males and increased for females.
- Median age at death for septicemia, Parkinson's disease, and chronic liver disease and cirrhosis increased for males and females indicating residents dying at an older age from these causes.

### **Mortality by Race**

From 1970 through 2016, the all-cause age-adjusted mortality rate for both the white and black populations have decreased. The mortality rate has been consistently higher for the black population compared to the white population. In 2016, the age-adjusted rate for all-cause mortality was 1073.6 per 100,000 for the black population and 750.8 per 100,000 for the white population.

- The rate of homicides in the county was the largest mortality disparity by race. The rate for the black population was 19.6 times higher than the rate for the white population at 46.4 per 100,000 compared to 2.4 per 100,000. However, the rate decreased for the black population from 51.8 per 100,000 in 2015.
- Death due to nephritis, nephrotic syndrome and nephrosis also presented as a disparity in the county with the black population experiencing mortality at a rate 3 times that of the white population. The disparity has been growing from 2014 with rates increasing in the black population to 37.3 per 100,000 and decreasing in the white population to a rate of 13.5 per 100,000.
- Deaths due to diabetes affected the black population at a rate 1.9 times that of the white population. The black population had a rate of 34.7 per 100,000 with a median age of death from diabetes of 69 years compared to the white population that had a rate of 18.2 per 100,000 and median age of 78.



- The black population had a 12-year younger median age at death from cerebrovascular disease of 73 years, with a rate 1.7 times higher than the rate of the white population who had a median age of 85 years.
- The black population had a higher rate of death due to diseases of the heart (1.5 times the rate for the white population) with a median age of 72 years, 12 years younger than white population.
- The rate of death from cancers in 2016 for the black population was 202.9 per 100,000, 1.2 times that of the white population at 162.7 per 100,000. African Americans also had a median age of death from cancer at 69 years compared to 75 for whites.
- The rate of death due to Alzheimer's disease decreased among the black population from 27.8 per 100,000 in 2015 to 15.5 per 100,000 in 2016. In 2016 the black population had a rate 40% lower than the white population. The median age for death in the black population also increased from 87 to 89.5 years of age in 2016. Mortality due to Alzheimer's disease was the only cause which African Americans had an older median age at death than the white population.
- While the age-adjusted rate due to suicides in the black population remains 10% less than that of the white population, the number of deaths has been increasing.
- Other disparities include septicemia (1.4), chronic liver disease and cirrhosis (1.2), and pneumonitis due to solids and liquids (1.3).
- Additional median ages at death to note include: septicemia 69.5 years for the black population compared to 81 years for the white population, and unintentional injuries 51 years for both the black and white populations.

### **Mortality by Sex and Race**

Since 1970, the all-cause mortality rate has been trending downward for black and white females and males. However, in 2016 there was a significant increase in the all-cause mortality rate for black males. In 2016 black males had an all-cause mortality rate of 1433.3 per 100,000. This rate was 1.6 times higher than the rate for white males, 905.0 per 100,000. Black females had an age-adjusted mortality rate of 830.5 per 100,000, while white females had a rate of 628.7 per 100,000. Black females have consistently had an all-cause mortality rate that is 1.3 times higher than that of white females since 2014. Across races, males had a higher age-adjusted mortality rate and lower median age of death than their female counterparts. Across sexes, black males and females had a higher age-adjusted mortality rate and lower median age of death than their white counterparts.

- Death due to nephritis, nephrotic syndrome, and nephrosis increased for black females in 2016 to a rate of 28.2 per 100,000 and decreased for white females to 10.2 per 100,000. This cause had the largest ratio of 2.8 between races for females. Despite the increased rate for black females, the median age of death increased to 80 years. The rate also increased for black males to 52.8 per 100,000, 3.2 times the rate for white males (16.7 per 100,000) and 1.8 times the rate of black females.
- Rates of unintentional injuries significantly increased for black males in 2016, from 79.3 per 100,000 in 2015 to 139.6 per 100,000. While in 2015 males had similar rates across the races, in 2016 black males had a rate 1.4 times that of white males, who also had a significant increase (102.4 per 100,000). Due to the increase in deaths due to unintentional injuries, its rank as a leading cause of death among black males rose from 4th to 3rd in 2016. Rates for males were significantly higher than their female counterparts. Black females had a decrease in the rate from 2015 to 38.4 per 100,000



and had a rate 10% lower than white females who had a significantly increased rate of 50.8 per 100,000. Median ages at death also decreased.

- Rates of death due to cancers have decreased for black females from a rate of 199.1 per 100,000 to 159.2 per 100,000 in 2016. This decrease has driven down the black to white mortality ratio for cancer in females from 1.4 to 1.1, with white females having a rate of 140.2 per 100,000 in 2016. While cancer was the number one cause of death for black females in 2015, in 2016 it dropped to number two, aligning with the causes of death rankings for the county and white females. However, the rate for black males increased to 276.6 per 100,000, driving their ratio from 1.1 to 1.4, while white males had rate of 195.2 per 100,000. Despite these changes, the median age of death remained consistent at 69 years for black females, 77 years for white females, 69 for black males, and 74 for white males
- Black and white females had an increase in the rate of death due to cerebrovascular disease. The increase from 41.3 per 100,000 to 50.4 per 100,000 for black females and 30.5 per 100,000 to 32.3 per 100,000 for white females resulted in a ratio of 1.6 between the races. It was the third leading cause of death for both races of females, and fifth for males.
- The mortality rate for chronic lower respiratory diseases almost doubled for black males from 2015 (35.4 per 100,000) to 2016 (62.5 per 100,000). White males had a rate of 41.8 per 100,000. Chronic lower respiratory diseases were the fourth leading cause of death for white males and was not a top five cause for black males.
- Black females and black males had a 1.5 times higher mortality rate for diseases of the heart than their white counterparts. Rates slightly increased for black females and males and decreased for white females and males from 2015 to 2016.
- Homicide was the fourth leading cause of death among black males in 2016, however it was not among the top five leading causes for white males. The rate decreased from 101.5 per 100,000 in 2015 to 83.9 per 100,000 in 2016. However, the rate remains disproportionately higher for black males (22.1 times higher) than that of white males who had a rate of 3.8 per 100,000. The median age of death for a black male due to homicide was 27 years.
- The rate for death due to chronic liver disease and cirrhosis among black males was 1.3 times the rate of white males. This disparity increased from 2015 when black males had a rate 10% lower than white males.
- The mortality rate due to diabetes among black females, 37.1 per 100,000, was 2.4 times higher than the rate for white females, 15.2 per 100,000. The disparity is also evident in the median age at death for black females of 68 years compared to 81 years for white females. While the rate increased for black females, black males saw a decrease to 32.3 per 100,000. This decrease lowered the ratio for males from 2.1 in 2015 to 1.4 in 2016. The median age at death for black males also increased by 4 years to 70.

### **Infant Mortality**

Infant mortality is defined as death occurring within the first year of life. In 2016 there were 78 infant deaths in Allegheny County with a rate of 5.9 per 1,000 live births. This rate decreased from 6.2 per 1,000 births in 2015 when there were 83 infant deaths. In 2016 Allegheny County had a lower infant mortality rate than Pennsylvania's (6.1 per 1,000).



There are racial disparities between black and white populations in Allegheny County and at the state level. In Allegheny County the mortality rate for black infants increased in 2016 to 14.9 deaths per 1,000 births. This rate was 4.5 times higher than the rate for white infants (3.3 per 1,000 births,) and higher than Pennsylvania's black infant mortality rate (14.6 per 1,000). The Healthy People 2020 goal of reaching an infant mortality rate of 6 deaths per 1,000 births was met for the County's white population and overall rate, but was not attained for the black population.

### **Neonatal Mortality**

Neonatal mortality is a death that occurs within the first 28 days of life. In 2016, there were 58 neonatal deaths, one fewer than 2015. The neonatal mortality rate has remained stable for the county since 2014 at 4.4 per 1,000 births. Allegheny County had the same neonatal mortality rate as Pennsylvania. In 2016 the neonatal mortality rate for white neonates decreased from 3 per 1,000 in 2015 to 2.5 per 1,000. However, the rate increased for black neonates from 8.2 per 1,000 in 2015 to 10.2 per 1,000 in 2016. The Healthy People 2020 goal of reaching the rate of 4.1 deaths per 1,000 has only been met in the county's white population.

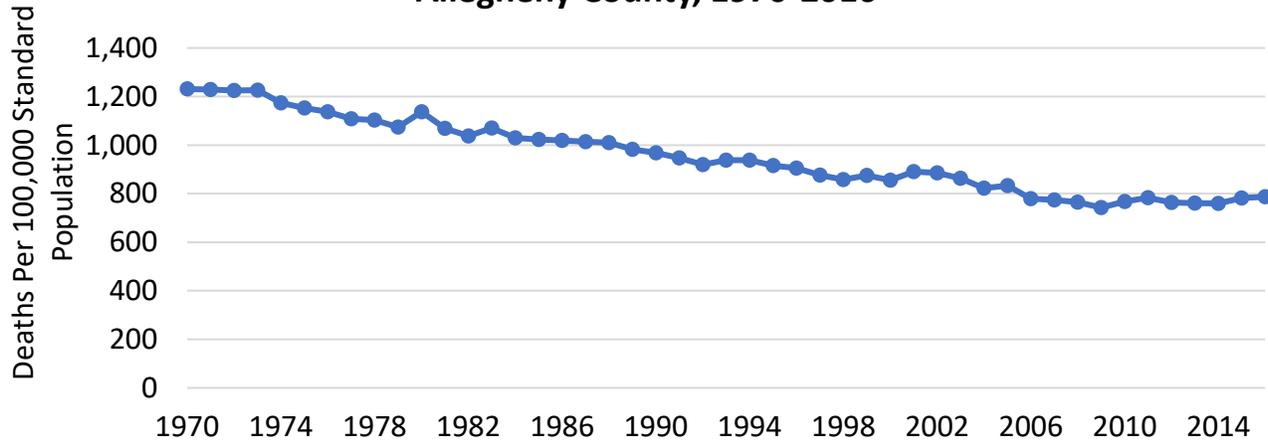
### **Post Neonatal Mortality**

Post neonatal death occurs between the 28<sup>th</sup> and 364<sup>th</sup> day of life. In 2016 there were 20 post neonatal deaths in Allegheny County with a rate of 1.5 per 1,000 births. This is the lowest rate the county has had since 2012. The County rate was lower than Pennsylvania's rate of 1.7 per 1,000. However, the rate for post neonatal deaths in the black population increased to 4.7 per 1,000 births while the rate for the white population decreased to 0.8 per 1,000. The rate for black post-neonatal mortality in the county has remained consistently above the state's rate since 2013. The disparity in rates by race is larger in Allegheny County at 5.9 compared to 3.3 at the state level. The Healthy People 2020 goal of 2.0 deaths per 1,000 has been met for the county's white post-neonatal rate (0.8 per 1,000) and for the overall county rate but has not been reached for the black population.

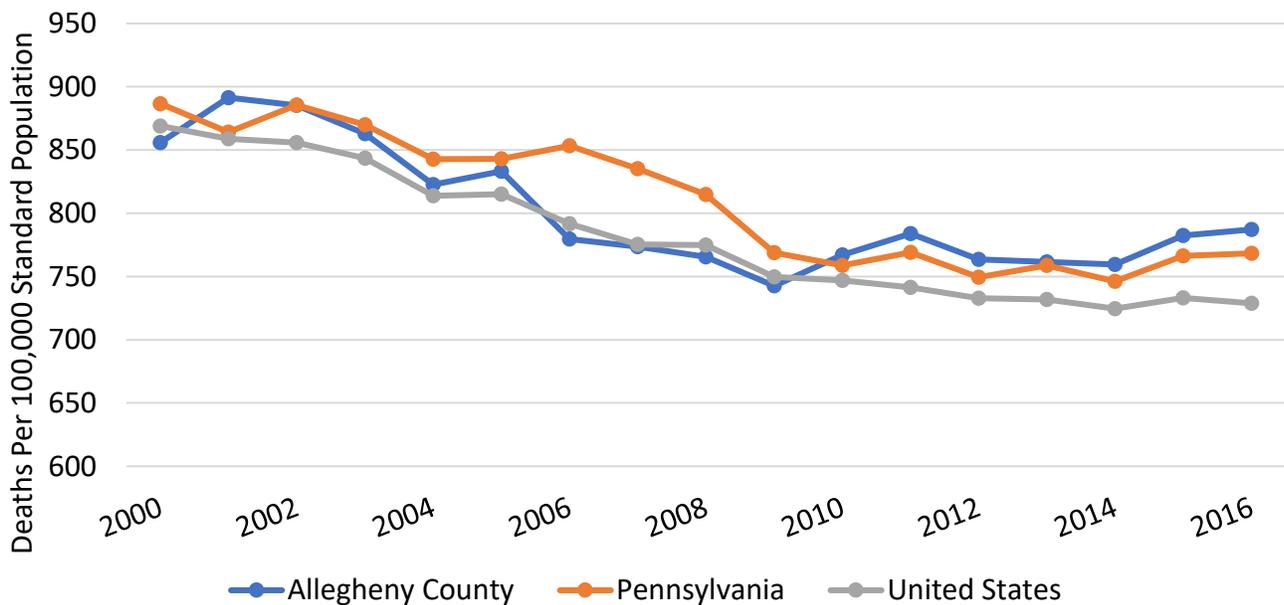


## MORTALITY ILLUSTRATIONS

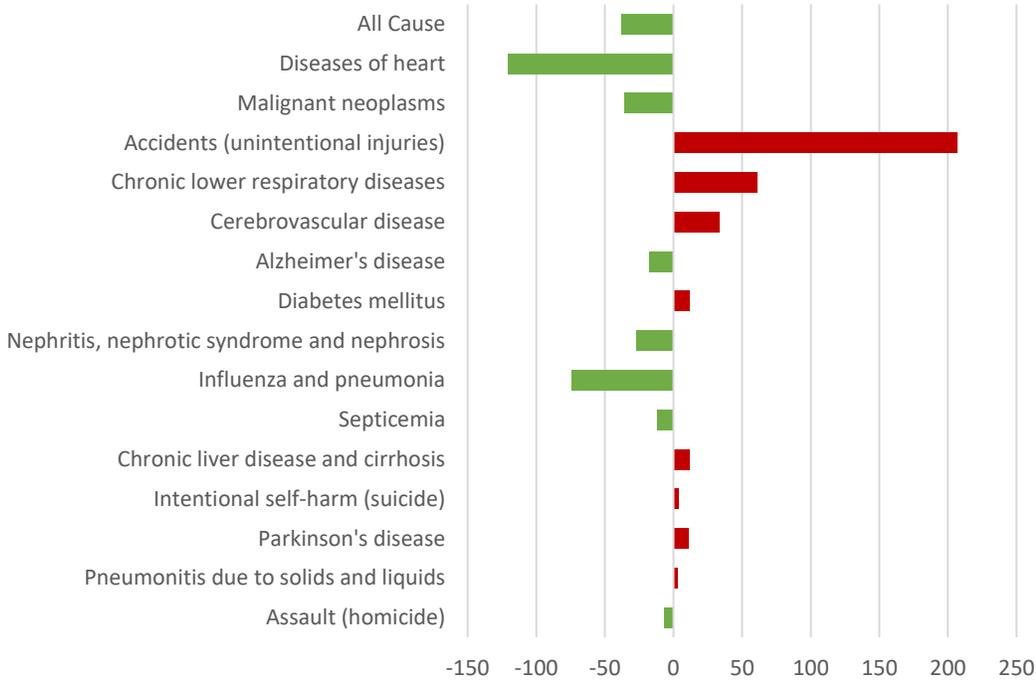
**Figure 1. All-cause age-adjusted mortality rate:  
Allegheny County, 1970-2016**



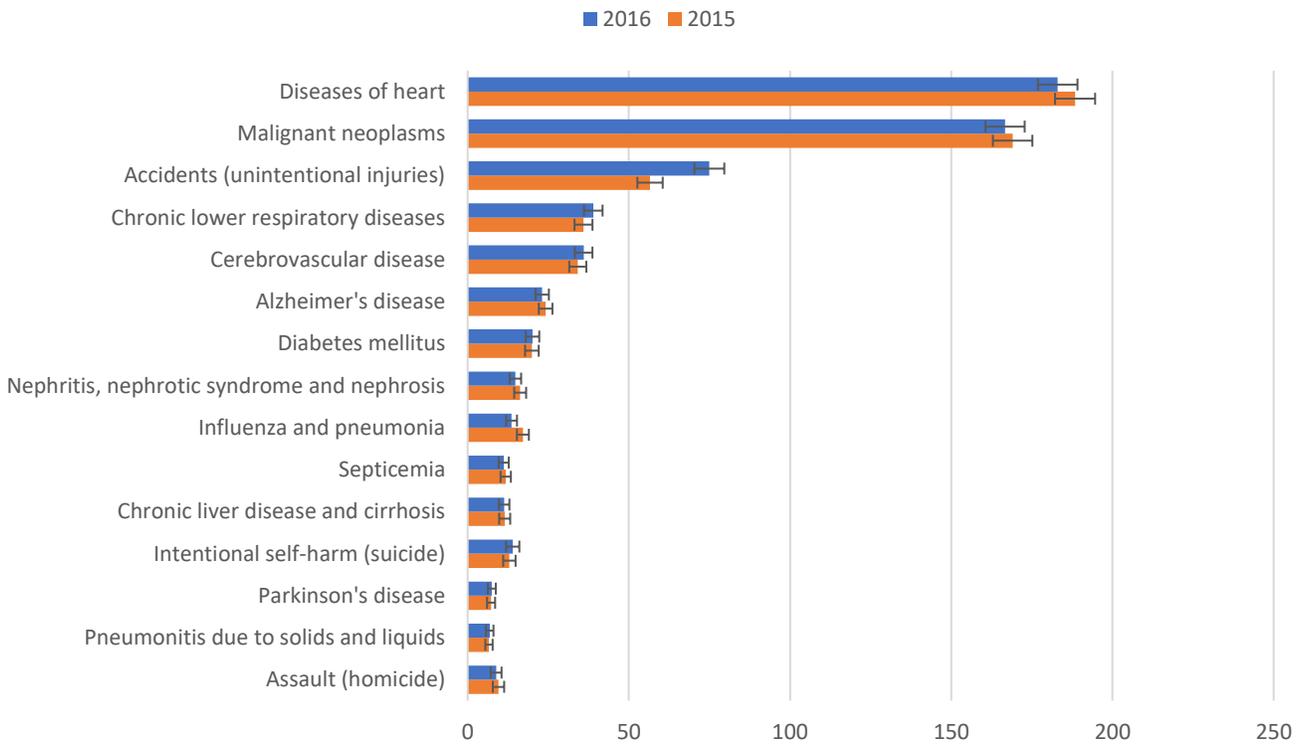
**Figure 2. All-cause age-adjusted mortality rate:  
Allegheny County, Pennsylvania, and the United States, 2000-2016**



**Figure 3. Change in number of deaths by cause:  
Allegheny County, 2015 to 2016**



**Figure 4. Age-adjusted mortality rate for leading causes of death:  
Allegheny County, 2015 and 2016**



\*Error bars indicate 95% confidence intervals



# 2015 Allegheny County Mortality Report

September 2018

**Table 1: Number of total deaths, percent of total deaths, age-adjusted mortality rate, 95% confidence intervals, and percent change for leading causes of death: Allegheny County, 2015 and 2016**

Cause of Death	2015				2016				Percent Change in Rates
	Number	Percent	Age-Adjusted Rate <sup>a</sup>	95% Confidence Interval	Number	Percent	Age-Adjusted Rate <sup>a</sup>	95% Confidence Interval	
<b>All causes</b>	13,844	100%	782.5	(769.5, 795.6)	13,804	100%	787.1	(774.0, 800.2)	0.6%
Diseases of heart	3,534	26%	188.4	(182.2, 194.6)	3,413	25%	183.0	(176.9, 189.2)	-2.9%
Malignant neoplasms	2,929	21%	169.0	(162.9, 175.2)	2,893	21%	166.7	(160.6, 172.8)	-1.4%
Accidents (unintentional injuries)	798	6%	56.6	(52.6, 60.5)	1004	7%	75.0	(70.3, 79.6)	32.5%
Chronic lower respiratory diseases	640	5%	35.9	(33.1, 38.7)	701	5%	39.0	(36.1, 41.8)	8.4%
Cerebrovascular disease	639	5%	34.2	(31.5, 36.8)	673	5%	36.0	(33.3, 38.7)	5.3%
Alzheimer's disease	503	4%	24.2	(22.1, 26.3)	485	4%	23.1	(21.1, 25.2)	-4.3%
Diabetes mellitus	341	2%	19.9	(17.8, 22.0)	353	3%	20.1	(18.0, 22.2)	1.0%
Nephritis, nephrotic syndrome and nephrosis	298	2%	16.3	(14.4, 18.1)	271	2%	14.8	(13.1, 16.6)	-9.0%
Influenza and pneumonia	327	2%	17.1	(15.3, 19.0)	253	2%	13.6	(11.9, 15.3)	-20.5%
Septicemia	210	2%	11.8	(10.2, 13.4)	198	1%	11.2	(9.6, 12.8)	-5.2%
Chronic liver disease and cirrhosis	173	1%	11.5	(9.8, 13.2)	185	1%	11.3	(9.7, 13.0)	-1.5%
Intentional self-harm (suicide)	174	1%	12.9	(11.0, 14.9)	178	1%	14.0	(11.9, 16.0)	8.0%
Parkinson's disease	129	1%	7.3	(6.0, 8.5)	140	1%	7.5	(6.3, 8.7)	3.1%
Pneumonitis due to solids and liquids	130	1%	6.6	(5.5, 7.8)	133	1%	6.8	(5.7, 8.0)	3.5%
Assault (homicide)	113	1%	9.6	(7.8, 11.3)	106	1%	8.8	(7.2, 10.5)	-7.6%

<sup>a</sup>Rate is deaths per 100,000 standard population

**Table 2: Age-adjusted mortality rate<sup>a</sup> for leading causes of death: Allegheny County, 1970-2016**

Cause of Death	1970	1975	1980	1985	1990	1995	2000	2005	2010	2012	2013	2014	2015	2016
<b>All causes</b>	1230.9	1152.9	1197.1	1022.6	968.5	915.5	855.7	833.3	767	763.6	761.5	759.6	782.5	787.1
Diseases of heart	545.8	213.5	497.7	427.9	345.7	308.3	256.2	228.3	183.6	181.4	185.7	185.9	188.4	183
Malignant neoplasms	214.9	224.9	237.5	228.3	242.1	228.1	214.2	203.5	184.8	184.2	174.4	173.6	169	166.7
Accidents (unintentional injuries)	38.1	36	35.3	27.8	25.9	25.6	29.3	36.7	43.2	45.6	46.3	47.3	56.6	74.97
Chronic lower respiratory diseases	12.5	21.5	25.8	31.3	35	36.3	37.8	37.9	36.6	36.4	38.5	37.3	35.9	38.96
Cerebrovascular disease	128.8	110.3	89.2	69	61.2	28.9	53.2	43.7	38.9	34.5	37.1	34.7	34.2	35.9
Alzheimer's disease	NA <sup>b</sup>	NA	0.5	2.7	5.3	5.3	12.4	20	17.9	18.6	16.6	21	24.2	23.1
Diabetes mellitus	23	20.7	25.4	22.9	23.7	23.3	24.8	20.5	17.2	20.7	20	16.8	19.9	20.1
Influenza and Pneumonia	39.8	33.5	28.6	30.2	33.2	30.8	18.9	18.8	17	15.2	17.8	16.3	17.1	13.6
Nephritis, nephrotic syndrome and nephrosis	6.9	10.1	11.6	13.2	13.7	12.7	17.8	19.3	18.4	15.3	15	14.4	16.3	14.8
Septicemia	2.4	4.4	7.4	9.6	11.1	11.3	16.2	14.7	14	11.6	13	13.2	11.8	11.2
Parkinson's disease	NA	NA	2.9	3	3.1	4.7	6.5	7.3	7.4	7.9	7.5	7.2	7.3	7.5
Intentional self-harm	13.5	12.7	11.1	11.5	11.1	10.2	10.8	11.4	9.8	11.7	12.9	11.3	12.9	13.9
Chronic liver disease and cirrhosis	21.3	19.1	20.5	11	10.3	9.4	9.3	9.4	10.6	9	10.1	12.6	11.5	11.3
Pneumonitis due to solids and liquids	NA	NA	NA	NA	NA	NA	8.3	13.7	7.9	6.4	6.3	6	6.6	6.8
Assault (homicide)	5.1	6.9	5.7	3.8	5.3	6.8	5.8	7.5	8.6	8	7.3	9.6	9.6	8.8

<sup>a</sup>Rate is deaths per 100,000 standard population

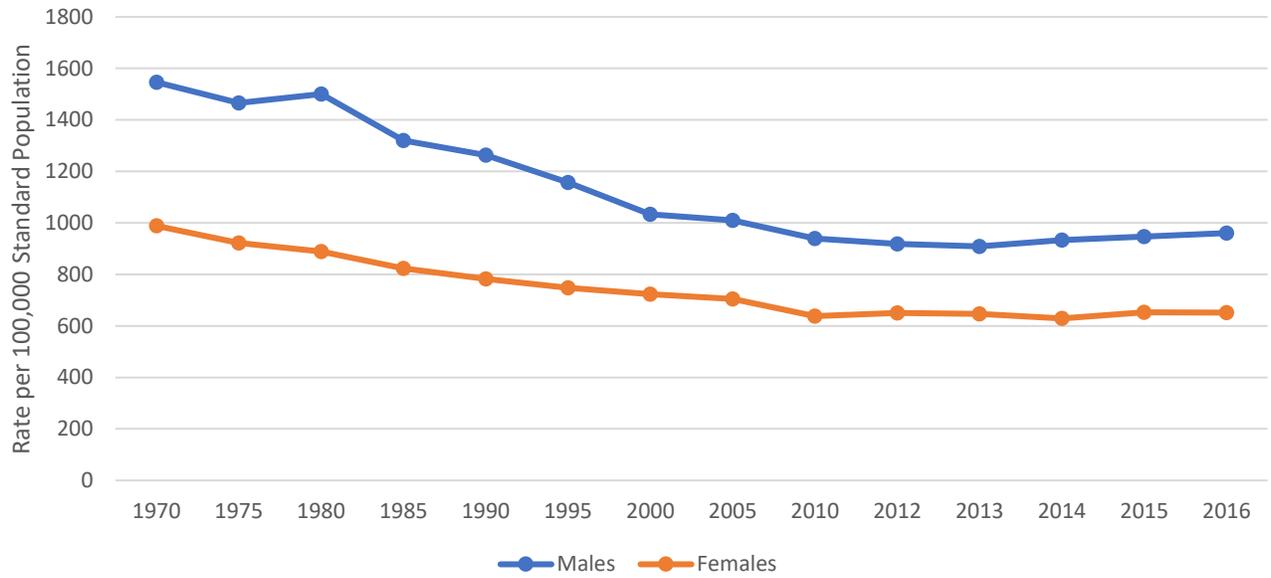
<sup>b</sup>NA = Data are not available



# 2015 Allegheny County Mortality Report

September 2018

Figure 5. All-cause age-adjusted death rate by sex:  
Allegheny County, 1970-2016





# 2015 Allegheny County Mortality Report

September 2018

**Table 3: Leading cause rank, number of total deaths, age-adjusted mortality rate, and 95% confidence intervals for county leading causes of death by sex: Allegheny County, 2015 and 2016**

Cause of Death	Males								Females							
	2015				2016				2015				2016			
	Rank for Males	Number	Age-Adjusted Rate <sup>a</sup>	95% Confidence Interval	Rank for Males	Number	Age-Adjusted Rate <sup>a</sup>	95% Confidence Interval	Rank for Females	Number	Age-Adjusted Rate <sup>a</sup>	95% Confidence Interval	Rank for Females	Number	Age-Adjusted Rate <sup>a</sup>	95% Confidence Interval
<b>All causes</b>		6,687	947.4	(924.6, 970.1)		6,753	960.1	(937.2, 983.0)		7,157	652.9	(637.8, 668.1)		7,051	651.7	(636.4, 666.9)
Diseases of heart	1	1,783	244.7	(233.3, 256.0)	1	1,738	240.1	(228.8, 251.3)	1	1,751	148.0	(141.1, 154.9)	1	1,675	140.7	(133.9, 147.4)
Malignant neoplasms	2	1,479	203.4	(193.1, 213.8)	2	1,466	202.2	(191.8, 212.5)	2	1,450	145.5	(138.0, 152.9)	2	1,427	142.5	(135.1, 149.8)
Accidents (unintentional injuries)	3	473	75.2	(68.4, 82.0)	3	641	103.2	(95.2, 111.2)	5	325	38.8	(34.6, 43.1)	5	363	47.8	(42.9, 52.7)
Chronic lower respiratory diseases	4	262	36.5	(32.1, 40.9)	4	311	44.0	(39.1, 48.9)	3	378	35.7	(32.1, 39.3)	4	390	36.0	(32.4, 39.6)
Cerebrovascular disease	5	261	36.6	(32.1, 41.0)	5	263	37.1	(32.6, 41.6)	3	378	31.9	(28.7, 35.2)	3	410	34.7	(31.3, 38.0)
Alzheimer's disease		142	20.1	(16.8, 23.4)		126	17.4	(14.4, 20.5)	4	361	26.2	(23.5, 28.9)		359	26.2	(23.5, 28.9)
Diabetes mellitus		178	25.6	(21.9, 29.4)		171	23.7	(20.1, 27.2)		163	15.5	(13.2, 17.9)		182	17.7	(15.1, 20.3)
Nephritis, nephrotic syndrome and nephrosis		170	24.3	(20.7, 28.0)		140	19.9	(16.6, 23.2)		128	11.4	(9.4, 13.4)		131	11.8	(9.8, 13.8)
Influenza and pneumonia		144	20.0	(16.7, 23.3)		128	17.7	(14.7, 20.8)		183	15.3	(13.1, 17.5)		125	11.4	(9.4, 13.5)
Septicemia		84	11.3	(8.9, 13.7)		94	13.4	(10.7, 16.1)		126	12.1	(10.0, 14.2)		104	9.5	(7.7, 11.4)
Chronic liver disease and cirrhosis		103	15.4	(12.4, 18.3)		113	15.0	(12.3, 17.8)		70	7.9	(6.1, 9.8)		72	8.3	(6.4, 10.2)
Intentional self-harm (suicide)		135	21.2	(17.6, 24.8)		129	21.3	(17.6, 24.9)		39	5.3	(3.6, 6.9)		49	7.1	(5.1, 9.1)
Parkinson's disease		79	11.6	(9.0, 14.1)		80	11.8	(9.2, 14.4)		50	4.5	(3.3, 5.8)		60	4.8	(3.6, 6.1)
Pneumonitis due to solids and liquids		63	8.6	(6.5, 10.7)		68	9.2	(7.0, 11.4)		67	5.5	(4.2, 6.8)		65	5.4	(4.1, 6.8)
Assault (homicide)		100	17.3	(13.9, 20.6)		87	14.8	(11.7, 17.9)		13	1.8	(0.8, 2.8)		19	2.9	(1.6, 4.2)

<sup>a</sup>Rate is deaths per 100,000 standard population

**Table 4. Median age (years) at death for county leading causes of death by sex: Allegheny County, 2015 and 2016**

Cause of Death	2015			2016		
	Total	Male	Female	Total	Male	Female
<b>All causes</b>	80	76	84	80	75	83
Diseases of heart	84	79	86	83	78	87
Malignant neoplasms	74	73	76	74	73	76
Accidents (unintentional injuries)	54	49	67.5	50	47	55
Chronic lower respiratory diseases	80	78.5	81	80	80	81
Cerebrovascular disease	84	79	86	84	80	86
Alzheimer's disease	89	87	90	89	88	90
Diabetes mellitus	77	74	80	77	75	80
Nephritis, nephrotic syndrome and nephrosis	83	83	84	83	82.5	83
Septicemia	79	74	81	79	76	82
Influenza and pneumonia	86	84	87	84	83.5	85
Intentional self-harm (suicide)	51	50	53	47	47	48
Chronic liver disease and cirrhosis	60	57	61	63	63	62
Parkinson's disease	83	83	83	85.5	84	87
Pneumonitis due to solids and liquids	86	86	86	86	85	87
Assault (homicide)	26	25.5	27	27	27	27

**Table 5. Male-to-female age-adjusted mortality rate ratio Allegheny County, 2014, 2015, and 2016**

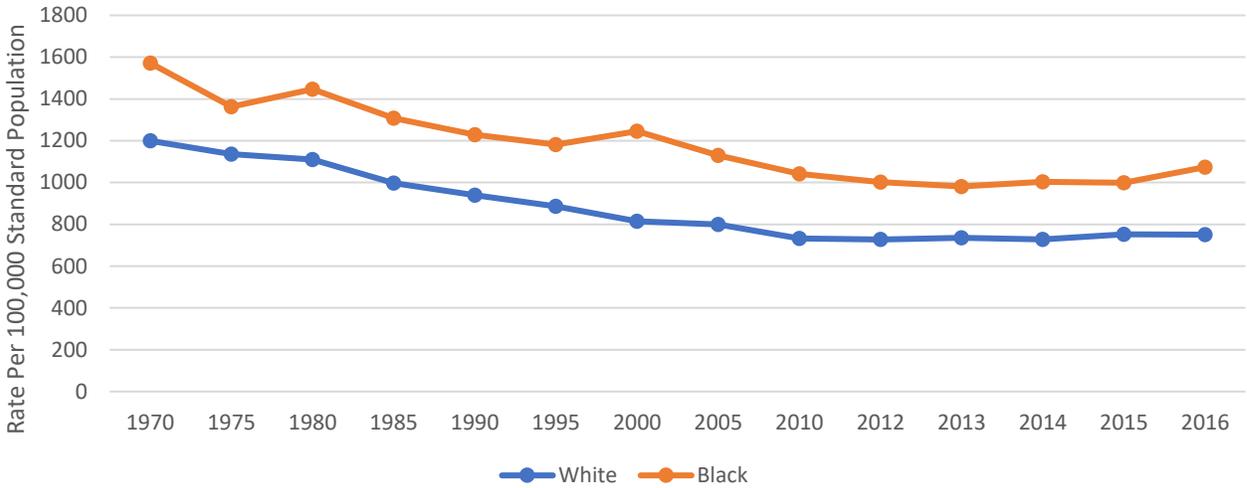
Cause of Death	Male to Female Ratio		
	2014	2015	2016
<b>All Causes</b>	1.5	1.5	1.5
Diseases of heart	1.7	1.7	1.7
Malignant neoplasms	1.4	1.4	1.7
Accidents (unintentional injuries)	2	1.9	2.2
Chronic lower respiratory diseases	1.3	1	1.2
Cerebrovascular disease	1	1.1	1.1
Alzheimer's disease	0.9	0.8	0.7
Diabetes mellitus	1.4	1.7	1.3
Nephritis, nephrotic syndrome and nephro	1.6	2.1	1.7
Influenza and pneumonia	1.8	1.3	1.5
Septicemia	1.2	0.9	1.4
Chronic liver disease and cirrhosis	2.9	1.9	1.8
Intentional self-harm (suicide)	3.8	4	3.0
Parkinson's disease	3	2.6	2.4
Pneumonitis due to solids and liquids	1.9	1.6	1.7
Assault (homicide)	3.8	9.6	5.2



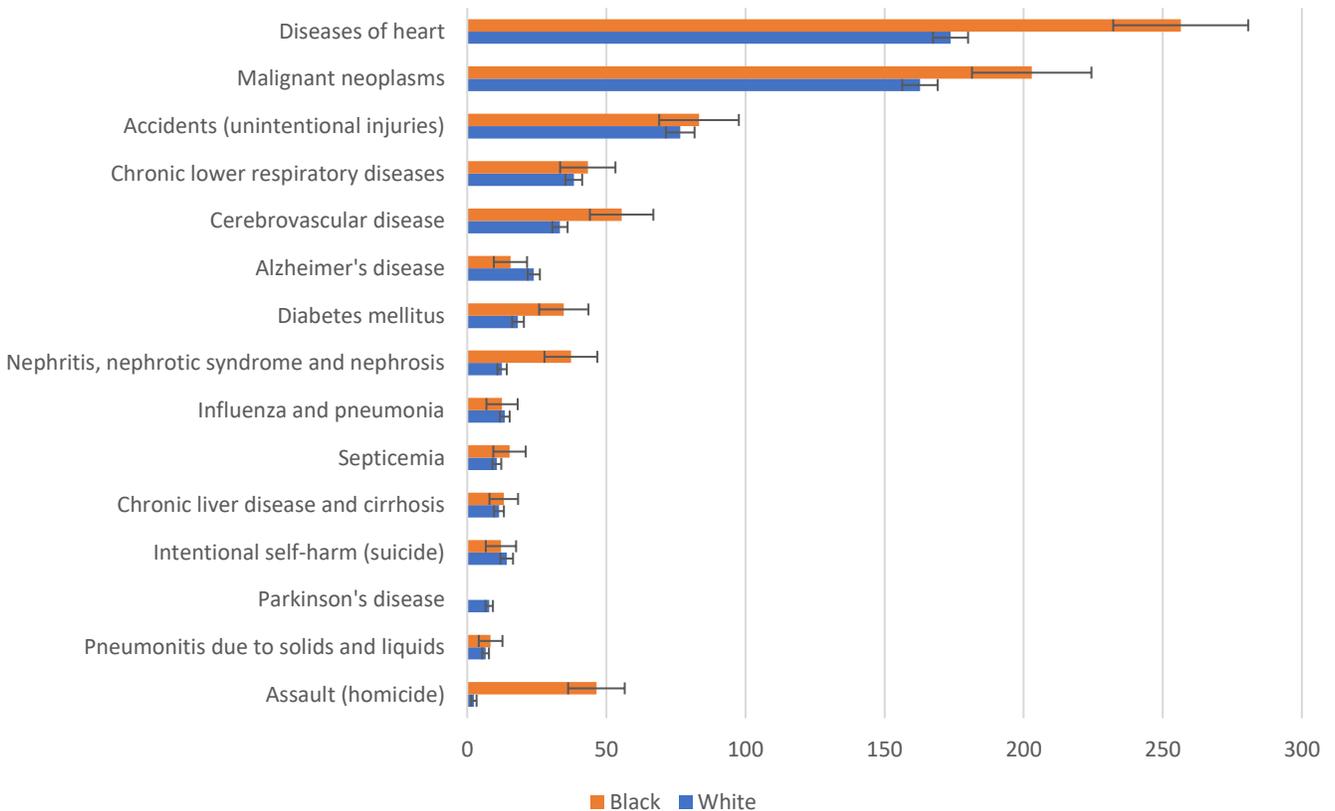
# 2015 Allegheny County Mortality Report

September 2018

**Figure 6. All-cause age-adjusted mortality rate by race: Allegheny County, 1970-2016**



**Figure 7. Age-adjusted mortality rates and confidence intervals by race for county leading causes of death: Allegheny County 2016**



\*Error bars indicate 95% confidence intervals



# 2015 Allegheny County Mortality Report

September 2018

**Table 6: Leading cause rank, number of total deaths, age-adjusted mortality rate, and 95% confidence intervals for leading causes of death by race: Allegheny County, 2015 and 2016**

Cause of Death	Black								White							
	2015				2016				2015				2016			
	Rank for Blacks	Number	Age-Adjusted Rate <sup>a</sup>	95% Confidence Interval	Rank for Blacks	Number	Age-Adjusted Rate <sup>a</sup>	95% Confidence Interval	Rank for Whites	Number	Age-Adjusted Rate <sup>a</sup>	95% Confidence Interval	Rank for Whites	Number	Age-Adjusted Rate <sup>a</sup>	95% Confidence Interval
<b>All causes</b>		1,675	998.8	(950.9, 1046.6)		1,787	1073.6	(1023.8, 1123.4)		11,904	752.7	(739.1, 766.2)		11,770	750.8	(737.2, 764.4)
Diseases of heart	1	391	231.2	(208.3, 254.1)	1	429	256.4	(232.2, 280.7)	1	3,086	182.8	(176.3, 189.2)	1	2,925	173.7	(167.4, 180.0)
Malignant neoplasms	2	352	208.9	(187.0, 230.7)	2	343	202.9	(181.4, 224.4)	2	2,520	164.8	(158.4, 171.2)	2	2,498	162.7	(156.3, 169.1)
Accidents (unintentional injuries)	3	101	59.6	(48.0, 71.2)	3	130	83.3	(69.0, 97.6)	3	674	57.7	(53.3, 62.0)	3	852	76.6	(71.4, 81.7)
Chronic lower respiratory diseases		56	34.4	(25.4, 43.4)		73	43.3	(33.4, 53.3)	4	577	36.3	(33.3, 39.2)	4	618	38.3	(35.3, 41.3)
Cerebrovascular disease	4	81	49.3	(38.6, 60.1)	4	91	55.5	(44.1, 66.9)	5	545	32.1	(29.4, 34.8)	5	569	33.3	(30.6, 36.1)
Alzheimer's disease		46	27.8	(19.7, 35.8)		26	15.5	(9.6, 21.5)		452	24.0	(21.8, 26.2)		455	23.9	(21.7, 26.1)
Diabetes mellitus		59	37.7	(28.1, 47.3)		59	34.7	(25.8, 43.6)		271	17.5	(15.4, 19.5)		285	18.2	(16.1, 20.4)
Nephritis, nephrotic syndrome and nephrosis		52	31.5	(23.0, 40.1)		59	37.3	(27.8, 46.8)		288	14.4	(12.5, 16.2)		230	12.5	(10.8, 14.2)
Influenza and pneumonia		32	19.0	(12.4, 25.5)		19	12.5	(6.9, 18.1)		239	16.8	(14.9, 18.7)		210	13.5	(11.8, 15.2)
Septicemia		33	19.6	(12.9, 26.3)		26	15.2	(9.4, 21.0)		174	11.0	(9.3, 12.6)		167	10.6	(9.0, 12.2)
Chronic liver disease and cirrhosis		23	12.9	(7.6, 18.1)		25	13.1	(8.0, 18.3)		148	11.6	(9.7, 13.4)		159	11.4	(9.6, 13.2)
Intentional self-harm (suicide)	7		NA	NA	19		12.1	(6.7, 17.6)		158	14.2	(12.0, 16.4)		150	14.2	(11.9, 16.5)
Parkinson's disease	2		NA	NA	6		NA	NA		125	7.8	(6.5, 9.2)		133	7.9	(6.5, 9.2)
Pneumonitis due to solids and liquids		14	9.0	(4.3, 13.6)		15	8.4	(4.2, 12.7)		113	6.3	(5.1, 7.4)		114	6.6	(5.4, 7.8)
Assault (homicide)	5	89	51.8	(41.1, 62.6)	5	80	46.4	(36.3, 56.6)		23	2.2	(1.3, 3.1)		23	2.4	(1.4, 3.3)

<sup>a</sup>Rate is deaths per 100,000 standard population

NA is censored due to low number of events

**Table 7. Black to white age-adjusted mortality rate ratio: Allegheny County 2014-2016**

Cause of Death	Black to White Ratio		
	2014	2015	2016
<b>All Causes</b>	1.4	1.3	1.4
Diseases of heart	1.3	1.3	1.5
Malignant neoplasms	1.3	1.3	1.2
Accidents (unintentional injuries)	0.7	1	1.1
Chronic lower respiratory diseases	1	0.9	1.1
Cerebrovascular disease	1.8	1.5	1.7
Alzheimer's disease	1.3	1.2	0.6
Diabetes mellitus	2.6	2.2	1.9
Nephritis, nephrotic syndrome and nephrosis	2	2.2	3.0
Influenza and pneumonia	1.3	1.1	0.9
Septicemia	2.1	1.8	1.4
Chronic liver disease and cirrhosis	0.8	1.1	1.2
Intentional self-harm (suicide)	0.4	0.3	0.9
Parkinson's disease	0.9	0.2	NA
Pneumonitis due to solids and liquids	0.9	1.4	1.3
Assault (homicide)	19.4	23.2	19.6

NA not available due to low number of events

**Table 8. Median age (years) at death for county leading causes of death by race: Allegheny County, 2015 and 2016**

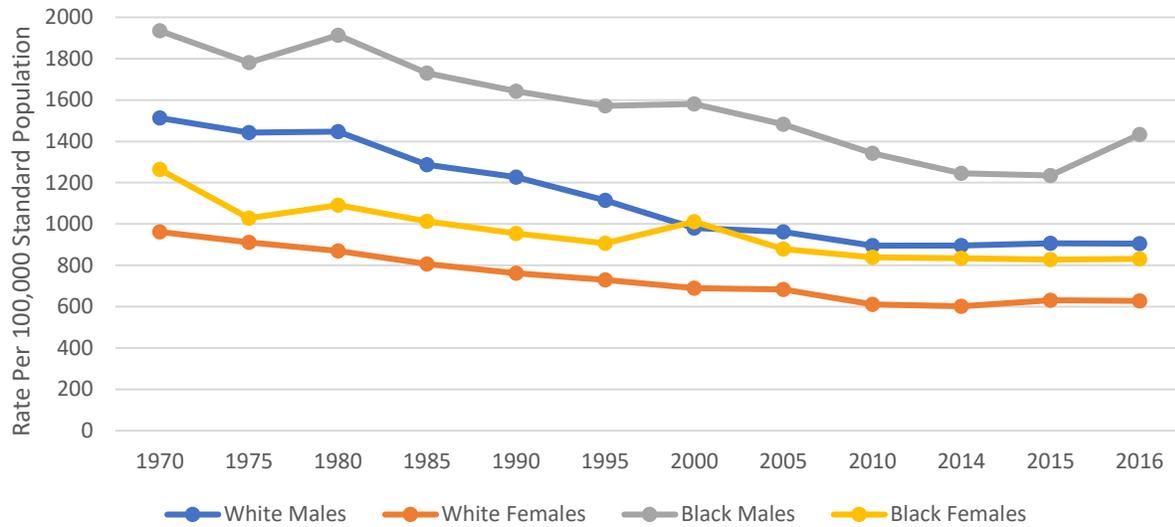
Cause of Death	2015		2016	
	White	Black	White	Black
<b>All causes</b>	82	69	81	68
Diseases of heart	84.5	73	84	72
Malignant neoplasms	75	71	75	69
Accidents (unintentional injuries)	54	55	51	51
Chronic lower respiratory diseases	80	76	81	71
Cerebrovascular disease	84	75	85	73
Alzheimer's disease	89	87	89	89.5
Diabetes mellitus	78	71	78	69
Nephritis, nephrotic syndrome and nephrosis	84	76	84.5	78
Septicemia	81	72	81	69.5
Influenza and pneumonia	86	73	86	68
Intentional self-harm (suicide)	51	35	49	34
Chronic liver disease and cirrhosis	60	60	63	62
Parkinson's disease	83	80.5	86	83
Pneumonitis due to solids and liquids	87	78	86	79
Assault (homicide)	28	25	38	26.5



# 2015 Allegheny County Mortality Report

September 2018

Figure 8. All-cause age-adjusted mortality rate by sex and race: Allegheny County, 1970-2016





# 2015 Allegheny County Mortality Report

September 2018

Table 9: Leading cause rank, number of total deaths, age-adjusted mortality rate, and 95% confidence intervals for county leading causes of death for Females by race: Allegheny County, 2015 and 2016

Cause of Death	Black Females								White Females							
	2015				2016				2015				2016			
	Rank for Black Females	Number	Age-Adjusted Rate <sup>a</sup>	95% Confidence Interval	Rank for Black Females	Number	Age-Adjusted Rate <sup>a</sup>	95% Confidence Interval	Rank for White Females	Number	Age-Adjusted Rate <sup>a</sup>	95% Confidence Interval	Rank for White Females	Number	Age-Adjusted Rate <sup>a</sup>	95% Confidence Interval
<b>All causes</b>		847	827.7	(772.0, 883.5)		840	830.5	(774.4, 886.7)		6,209	630.9	(615.2, 646.5)		6,113	628.7	(612.9, 644.4)
Diseases of heart	2	202	191.9	(165.5, 218.4)	1	208	201.3	(173.9, 228.7)	1	1,532	142.8	(135.7, 150.0)	1	1,444	132.4	(125.6, 139.2)
Malignant neoplasms	1	204	199.1	(171.7, 226.4)	2	161	159.2	(134.6, 183.8)	2	1,220	139.1	(131.3, 146.9)	2	1,241	140.2	(132.4, 148.0)
Accidents (unintentional injuries)	4	42	43.9	(30.6, 57.1)	5	34	38.4	(25.5, 51.3)		273	38.6	(34.0, 43.2)		322	50.8	(45.2, 56.3)
Chronic lower respiratory diseases	5	33	33.7	(22.2, 45.2)	5	34	33.7	(22.4, 45.0)	3	343	36.3	(32.4, 40.1)	4	353	36.3	(32.5, 40.0)
Cerebrovascular disease	3	43	41.3	(29.0, 53.6)	3	51	50.4	(36.6, 64.3)	4	327	30.5	(27.2, 33.8)	3	354	32.3	(29.0, 35.7)
Alzheimer's disease	5	33	29.2	(19.2, 39.2)		18	15.9	(8.6, 23.3)	5	323	25.8	(23.0, 28.7)	5	339	27.4	(24.5, 30.3)
Diabetes mellitus		28	30.3	(19.1, 41.5)	4	37	37.1	(25.1, 49.1)		132	13.7	(11.3, 16.0)		141	15.2	(12.7, 17.8)
Nephritis, nephrotic syndrome and nephrosis		27	26.7	(16.6, 36.7)		28	28.2	(17.8, 38.7)		99	9.5	(7.6, 11.4)		103	10.2	(8.2, 12.1)
Influenza and pneumonia		16	15.7	(8.0, 23.5)		12	14.5	(6.3, 22.7)		163	15.1	(12.8, 17.4)		110	10.6	(8.6, 12.5)
Septicemia		16	15.9	(8.1, 23.7)		11	10.3	(4.2, 16.4)		108	11.7	(9.5, 13.9)		90	9.3	(7.3, 11.2)
Chronic liver disease and cirrhosis		12	11.2	(4.9, 17.5)		8	NA	NA		57	7.7	(5.7, 9.7)		63	8.5	(6.4, 10.6)
Intentional self-harm (suicide)		2	NA	NA		4	NA	NA		35	5.7	(3.8, 7.6)		44	7.8	(5.5, 10.1)
Parkinson's disease		1	NA	NA		2	NA	NA		49	4.9	(3.6, 6.3)		58	5.2	(3.8, 6.5)
Pneumonitis due to solids and liquids		9	NA	NA		8	NA	NA		58	5.2	(3.8, 6.5)		57	5.4	(4.0, 6.8)
Assault (homicide)		7	NA	NA		12	12.9	(5.6, 20.2)		5	NA	NA		6	NA	NA

<sup>a</sup>Rate is deaths per 100,000 standard population

NA is censored due to low number of events

Table 10: Leading cause rank, number of total deaths, age-adjusted mortality rate, and 95% confidence intervals for county leading causes of death for males by race: Allegheny County, 2015 and 2016

Cause of Death	Black Males								White Males									
	2015				2016				2015				2016					
	Rank for Black Males	Number	Age-Adjusted Rate <sup>a</sup>	95% Confidence Interval	Rank for Black Males	Number	Age-Adjusted Rate <sup>a</sup>	95% Confidence Interval	Rank for White Males	Number	Age-Adjusted Rate <sup>a</sup>	95% Confidence Interval	Rank for White Males	Number	Age-Adjusted Rate <sup>a</sup>	95% Confidence Interval		
<b>All Causes</b>		828	1234.8	(1150.7, 1318.9)		947	1433.3	(1342.0, 1524.6)		5,695	906.8	(883.3, 930.4)		5,657	905.0	(881.4, 928.5)		
Diseases of heart	1	189	290.5	(249.1, 332.0)	1	221	347.3	(301.5, 393.1)	1	1,554	237.9	(226.1, 249.7)	1	1,481	228.3	(216.7, 239.9)		
Malignant neoplasms	2	148	229.0	(192.1, 265.9)	2	182	276.6	(236.4, 316.8)	2	1,300	201.3	(190.4, 212.3)	2	1,257	195.2	(184.4, 206.0)		
Accidents (unintentional injuries)	5	59	79.3	(59.0, 99.5)	3	96	139.6	(111.7, 167.6)	3	401	76.9	(69.4, 84.5)	3	530	102.4	(93.7, 111.2)		
Chronic lower respiratory diseases		23	35.4	(20.9, 49.9)		39	62.5	(42.9, 82.1)	4	234	36.5	(31.8, 41.2)	4	265	41.8	(36.8, 46.9)		
Cerebrovascular disease	4	38	61.5	(42.0, 81.1)	5	40	65.1	(44.9, 85.3)	5	218	33.8	(29.3, 38.3)	5	215	33.7	(29.2, 38.2)		
Alzheimer's disease		13	24.9	(11.4, 38.5)		8	NA	NA		129	20.1	(16.6, 23.6)		116	17.6	(14.4, 20.8)		
Diabetes mellitus		31	47.6	(30.8, 64.3)		22	32.3	(18.8, 45.8)		139	22.4	(18.7, 26.1)		144	22.4	(18.7, 26.1)		
Nephritis, nephrotic syndrome and nephrosis		25	41.4	(25.2, 57.6)		31	52.8	(34.2, 71.3)		140	22.3	(18.6, 26.0)		107	16.7	(13.5, 19.8)		
Influenza and pneumonia		16	24.9	(12.7, 37.1)		7	NA	NA		125	19.4	(16.0, 22.8)		120	18.5	(15.1, 21.8)		
Septicemia		17	24.0	(12.6, 35.5)		15	23.8	(11.7, 35.8)		66	10.0	(7.6, 12.4)		77	12.3	(9.6, 15.1)		
Chronic liver disease and cirrhosis		11	14.8	(6.0, 23.5)		17	19.5	(10.2, 28.7)		91	15.8	(12.5, 19.0)		96	14.9	(12.0, 17.9)		
Intentional self-harm (suicide)		5	NA	NA		15	22.1	(10.9, 33.2)		123	23.1	(19.0, 27.2)		106	20.8	(16.9, 24.8)		
Parkinson's disease		1	NA	NA		4	NA	NA		76	12.4	(9.6, 15.1)		75	12.2	(9.5, 15.0)		
Pneumonitis due to solids and liquids		5	NA	NA		7	NA	NA		55	8.2	(6.0, 10.4)		57	8.7	(6.4, 10.9)		
Assault (homicide)		3	82	101.5	(79.6, 123.5)		4	68	83.9	(64.0, 103.9)		18	3.7	(2.0, 5.4)		17	3.8	(2.0, 5.6)

<sup>a</sup>Rate is deaths per 100,000 standard population

NA is censored due to low number of events



# 2015 Allegheny County Mortality Report

September 2018

**Table 11. Black to white age-adjusted mortality rate ratio by sex: Allegheny County, 2014-2016**

Cause of Death	Black to White Females			Black to White Males		
	2014	2015	2016	2014	2015	2016
<b>All causes</b>	1.3	1.3	1.3	1.4	1.4	1.6
Diseases of heart	1.3	1.3	1.5	1.4	1.2	1.5
Malignant neoplasms	1.4	1.4	1.1	1.2	1.1	1.4
Accidents (unintentional injuries)	0.8	1.1	0.8	0.6	1.0	1.4
Chronic lower respiratory diseases	1	0.9	0.9	1.1	1.0	1.5
Cerebrovascular disease	1.8	1.4	1.6	1.8	1.8	1.9
Alzheimer's disease	0.9	1.1	0.6	1.9	1.2	NA
Diabetes mellitus	2.7	2.2	2.4	2.2	2.1	1.4
Nephritis, nephrotic syndrome and nephrosis	3.2	2.8	2.8	1	1.9	3.2
Influenza and pneumonia	1.1	1.0	1.4	1.4	1.3	NA
Septicemia	2	1.4	1.1	2.1	2.4	1.9
Chronic liver disease and cirrhosis	0.9	1.5	NA	0.7	0.9	1.3
Intentional self-harm (suicide)	0.4	NA	NA	0.4	NA	1.1
Parkinson's disease	0.6	NA	NA	1.1	NA	NA
Pneumonitis due to solids and liquids	0.6	NA	NA	1.1	NA	NA
Assault (homicide)	13.2	NA	NA	41.8	27.6	22.1

NA not available due to low number of events

**Table 12. Median age (years) at death for county leading causes of death by race and sex: Allegheny County, 2015 and 2016**

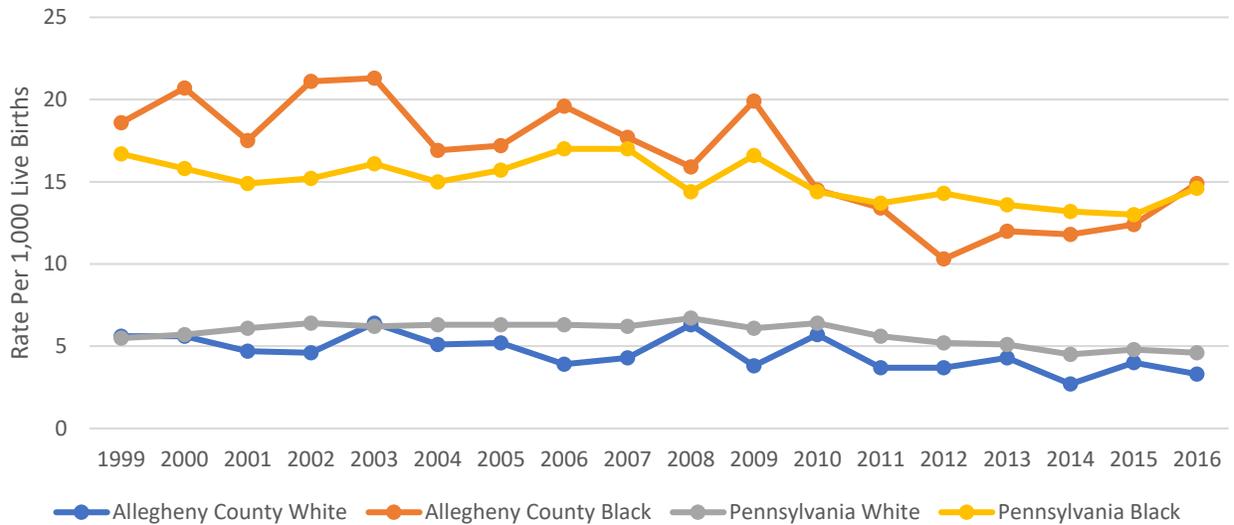
Cause of Death	Females				Males			
	2015		2016		2015		2016	
	Black	White	Black	White	Black	White	Black	White
<b>All causes</b>	74	85	72	84	65	77	65	76
Diseases of heart	78.5	87	75	87.5	69	81	69	80
Malignant neoplasms	71	76.5	69	77	70.5	73	69	74
Accidents (unintentional injuries)	55.5	75	52	56	53	48	50	47
Chronic lower respiratory diseases	80	81	68.5	81	72	79	73	80
Cerebrovascular disease	79	87	74	87	70	81.5	70.5	82
Alzheimer's disease	87	90	90	90	86	87	89.5	88
Diabetes mellitus	75.5	81	68	81	66	76	70	75
Nephritis, nephrotic syndrome and nephrosis	76	86	80	86	77	84	77	84
Septicemia	75.5	81.5	69	83.5	68	77.5	70	76
Influenza and pneumonia	75	87	58.5	87.5	71	84	70	84.5
Intentional self-harm (suicide)	44.5	53	37.5	51.5	35	50	34	48.5
Chronic liver disease and cirrhosis	60.5	62	59.5	62	58	57	62	63.5
Parkinson's disease	76	83	82	87.5	85	82.5	83	84
Pneumonitis due to solids and liquids	78	86.5	85.8	87	74	88	78	85
Assault (homicide)	25	55	25.5	47.5	25	28	27	38



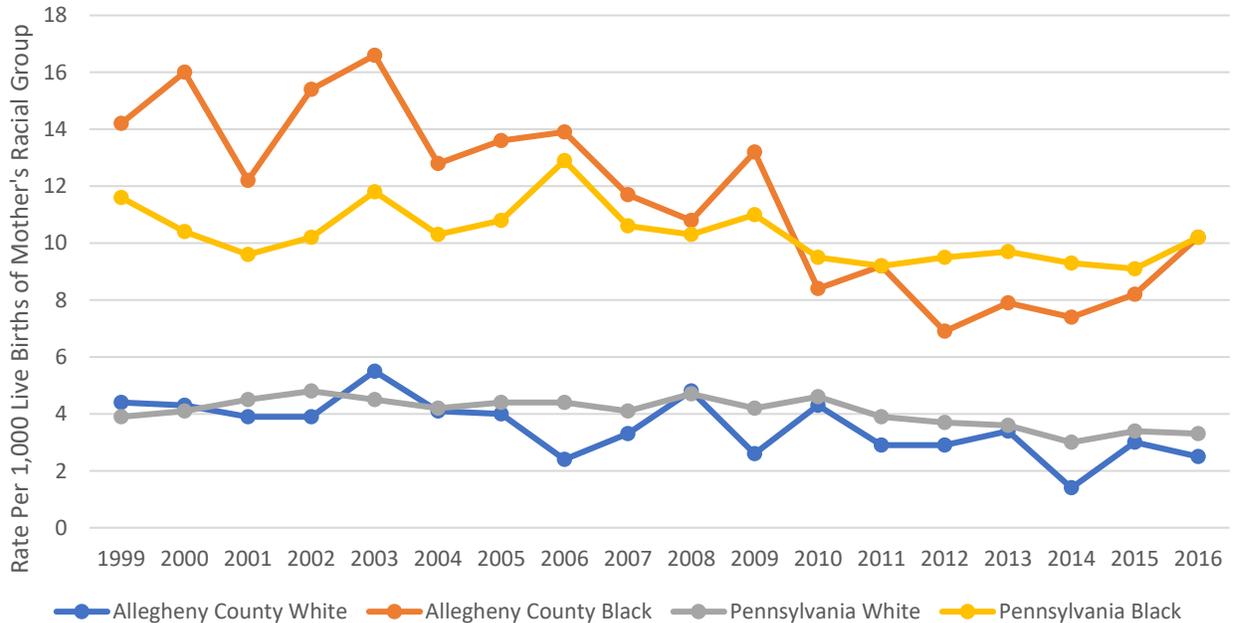
# 2015 Allegheny County Mortality Report

September 2018

**Figure 9. Infant mortality rate by race and geography:  
Allegheny County and Pennsylvania, 1999-2016**



**Figure 10. Neonatal mortality rate by race and geography: Allegheny County  
and Pennsylvania, 1999-2016**





## 2015 Allegheny County Mortality Report

September 2018

**Table 13. Neonatal mortality number and rate by race: Allegheny County, 1990-2016**

<b>Year</b>	<b>Total Number</b>	<b>Total Rate</b>	<b>White Number</b>	<b>White Rate</b>	<b>Black Number</b>	<b>Black Rate</b>
2016	58	4.4	23	2.5	26	10.2
2015	59	4.4	28	3	21	8.2
2014	48	3.6	13	1.4	19	7.4
2013	67	5	32	3.4	21	7.9
2012	59	4.5	27	2.9	18	6.9
2011	55	4.2	27	2.9	24	9.2
2010	65	5	40	4.3	22	8.4
2009	64	4.9	25	2.6	36	13.2
2008	79	6	46	4.8	30	10.8
2007	69	5.2	32	3.3	33	11.7
2006	62	4.9	23	2.4	37	13.9
2005	76	5.8	39	4	35	13.6
2004	76	5.8	40	4.1	34	12.8
2003	99	7.3	57	5.5	42	16.6
2002	83	6.2	40	3.9	40	15.4
2001	78	5.6	41	3.9	32	12.2
2000	91	6.4	47	4.3	44	16
1999	91	6.3	49	4.4	39	14.2
1998	67	4.7	41	3.6	25	9.3
1997	76	5.2	34	3	42	15.1
1996	79	5.3	45	3.9	34	12
1995	103	6.6	62	5.1	41	13.9
1994	91	5.6	51	4	38	12
1993	118	7.1	60	4.7	54	15.8
1992	116	6.6	56	4.1	58	16
1991	112	6.4	56	4.1	55	15.5
1990	117	6.5	58	4	57	16.6

Neonatal death is defined as a death that occurs between 0 and 27 days after birth

Per 1,000 live births. See Technical Notes for calculation

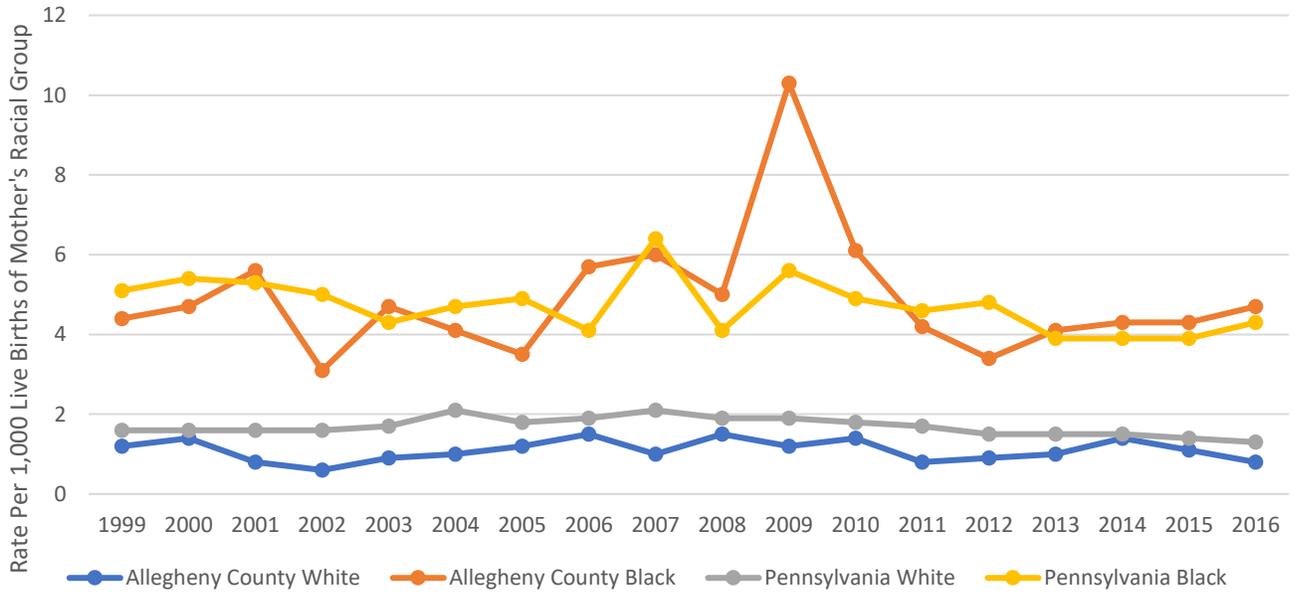
Per 1,000 live births of mother's racial group. See Technical Notes for calculation



# 2015 Allegheny County Mortality Report

September 2018

Figure 11. Post-neonatal mortality rate by race and geography: Allegheny County and Pennsylvania, 1999-2016





## 2015 Allegheny County Mortality Report

September 2018

**Table 14. Post-neonatal<sup>1</sup> mortality number and rate by race: Allegheny County, 1990-2016**

<b>Year</b>	<b>Total Number</b>	<b>Total Rate<sup>2</sup></b>	<b>White Number</b>	<b>White Rate<sup>3</sup></b>	<b>Black Number</b>	<b>Black Rate<sup>3</sup></b>
2016	20	1.5	7	0.8	12	4.7
2015	24	1.8	10	1.1	11	4.3
2014	27	2	13	1.4	11	4.3
2013	21	1.6	9	1	11	4.1
2012	18	1.4	8	0.9	9	3.4
2011	25	1.9	8	0.8	11	4.2
2010	32	2.5	14	1.4	16	6.1
2009	29	2.2	11	1.2	28	10.3
2008	28	2.1	14	1.5	14	5
2007	27	2	10	1	17	6
2006	29	2.3	14	1.5	15	5.7
2005	21	1.6	12	1.2	9	3.5
2004	21	1.6	10	1	11	4.1
2003	21	1.5	9	0.9	12	4.7
2002	16	1.2	6	0.6	8	3.1
2001	23	1.7	9	0.8	14	5.6
2000	29	2	15	1.4	13	4.7
1999	26	1.8	14	1.2	12	4.4
1998	34	2.4	17	1.5	17	6.3
1997	26	1.8	15	1.3	11	3.9
1996	38	2.6	18	1.5	20	7
1995	34	2.2	17	1.4	17	5.8
1994	39	2.4	18	1.4	21	6.6
1993	43	2.6	19	1.5	23	6.7
1992	55	3.1	25	1.8	29	8
1991	56	3.2	35	2.6	21	5.9
1990	51	2.8	25	1.7	24	7

<sup>1</sup>Post-neonatal death is defined as a death that occurs between 28 and 364 days after birth

<sup>2</sup>Per 1,000 live births. See Technical Notes for calculation

<sup>3</sup>Per 1,000 live births of mother's racial group. See Technical Notes for calculation



## TECHNICAL NOTES

### A. SOURCES OF DATA

#### DEATH RECORDS

The registration of death records is the responsibility of the Pennsylvania Department of Health. Birth record information is shared with the Allegheny County Health Department through a cooperative agreement which requires the following disclaimer: "These data were supplied by the State Health Data Center, Pennsylvania Department of health, Harrisburg, Pennsylvania. The Pennsylvania Department of Health specifically disclaims responsibility for any analyses, interpretations or conclusions."

The latest revision of the U.S. Standard Certificate of Death was implemented by Pennsylvania in 2006. These revisions were based upon changes made by the Centers for Disease Control and Prevention, and consisted of three new data items added to the certificate. These three questions pertained to tobacco use contributing to death, pregnancy at the time of death, and type of transportation injury death if a transportation-related injury death occurred.

Beginning in 2013, race was derived from multiple race selections, when previously it was derived from a single race designation field. From 2013, "multirace" was a new race designation assigned to people who chose more than one race out of the possible selections. When only one race was selected, the individual would be designated as that race only.

#### POPULATION DATA

Population estimates for the state and county were provided by the Division of Health Informatics, Pennsylvania Department of Health. These data were used to compute standard population rates, and were produced jointly by the United States Bureau of the census and the Pennsylvania State Data Center of the Pennsylvania State University at Harrisburg under the Federal-State Cooperative Program for Local Population Estimates.

### B. DEFINITIONS OF TERMS

**CAUSE OF DEATH:** Cause of death is determined to be the most proximal or causal condition or action resulting in an individual's death. The International Classification of Disease, Tenth Revision (ICD-10) acts as a means of categorizing such causes using an alpha-numeric system, which is set forth by the World Health Organization.

**INFANT DEATH:** The death of a child within the first year of life.

**NEONATAL DEATH:** The death of a child within the first 28 days of life.

**POST-NEONATAL DEATH:** The death of a child between 28 and 364 days of life.



# 2015 Allegheny County Mortality Report

September 2018

**MEDIAN AGE:** The age that falls exactly in the middle of the entire range of ages ranked in order from low to high such that 50% of the ages fall above it and 50% fall below it.

**RACE:** Mortality counts for all races besides White and Black were too small to be considered statistically reliable, and therefore only data for these two races are presented in this report.

**STATISTICALLY SIGNIFICANT:** The use of confidence intervals to determine significance without additional statistical testing may underestimate the number of significant changes in rates detected.

**LEADING CAUSES OF DEATH:** Leading causes of death are defined using the Centers for Disease Control and Prevention/ National Center for Health Statistics Instruction Manual Part 9, "ICD-10 Cause-of-Death Lists for Tabulating Mortality Statistics", Table B.

## C. FORMULAS

Formulas were used to calculate several rates in this report allowing for comparable examination across populations of different sizes.

$$\text{Infant Mortality Rate} = \frac{\text{Number of deaths under 1 year of age}}{\text{Number of live births}} \times 1,000$$

$$\text{Race-Specific Infant Mortality Rate} = \frac{\text{Number of infant deaths of a specific race}}{\text{Number of live births of a specific race}} \times 1,000$$

$$\text{Neonatal Mortality Rate} = \frac{\text{Number of infant deaths under 28 days of age}}{\text{Number of live births}} \times 1,000$$

$$\text{Post-Neonatal Mortality Rate} = \frac{\text{Number of infant deaths 28 to 364 days}}{\text{Number of live births}} \times 1,000$$

$$\text{Crude Death Rate} = \frac{\text{Number of total deaths}}{\text{Total Population}} \times 1,000$$

$$\text{Age-Specific Mortality Rate} = \frac{\text{Number of deaths in a specific age group}}{\text{Population in a specific age group}} \times 1,000$$

$$\text{Race-Specific Mortality Rate} = \frac{\text{Number of deaths of a specific race}}{\text{Population of a specific race}} \times 1,000$$



# 2015 Allegheny County Mortality Report

September 2018

$$\text{Cause-Specific Mortality Rate} = \frac{\text{Number of deaths from a specific cause}}{\text{Total population}} \times 1,000$$

$$\text{Age-Adjusted Mortality Rate} = \frac{\text{Sum of (age specific mortality rates per 100,000 for selected population x standard population in corresponding age groups)}}{\text{Sum of standard population}}$$

$$\text{Standard Error} = \frac{\text{Age-adjusted rate}}{\sqrt{\text{Number of deaths}}}$$

$$95\% \text{ Confidence Interval} = \text{Age - adjusted rate} \pm (1.96 \times \text{standard error})$$

All age-adjusted rates found within this report are adjusted by the direct method using the 2000 U.S. Standard Million Population. The 2000 U.S. standard million population and age distributions used in calculating age-adjusted mortality rates are as follows:

All Ages.....	1,000,000
Under 1.....	13,818
1-4.....	55,317
5-14.....	145,565
15-24.....	138,646
25-34.....	135,573
35-44.....	162,613
45-54.....	134,834
55-64.....	87,247
65-74.....	66,037
75-84.....	44,842
85+.....	15,508