



**OFFICE OF THE  
MEDICAL  
EXAMINER**

Palm Beach County Medical  
Examiner's Office  
2020 Annual Report

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## Introduction

According to the Florida Legislature Office of Economic and Demographic Research<sup>1</sup>, Palm Beach County is Florida's 4<sup>th</sup> most populous county, with 6.8% of Florida's population. In addition to its' year round and seasonal residents, Palm beach County has several million visitors per year. If any person, resident or visitor, dies within Palm Beach County, and the circumstances of the death fulfill the criteria defined by Florida Statute 406.11, they will be referred to the Palm Beach County Medical Examiner Office for investigation of the circumstances.

The Palm Beach County Medical Examiner's Office (PBCMEO), District 15 of the Florida Medical Examiner system, is responsible for determining the cause and manner of death of people who die in Palm Beach County and fulfill the criteria of Florida Statute 406.11<sup>2</sup>. The medical examiner shall "make or have performed such examinations, investigations, and autopsies as he or she shall deem necessary or shall be requested by the state attorney" based on the following criteria of Florida Statute 406.11:

- (a) When any person dies in the state:
  - 1. Of criminal violence
  - 2. By accident
  - 3. By suicide
  - 4. Suddenly, when in apparent good health
  - 5. Unattended by a practicing physician or other recognized practitioner
  - 6. In any prison or penal institution
  - 7. In police custody
  - 8. In any suspicious or unusual circumstance
  - 9. By criminal abortion
  - 10. By poison
  - 11. By disease constituting a threat to public health
  - 12. By disease, injury or toxic agent resulting from employment
- (b) When a dead body is brought into the state without proper medical certification
- (c) When a body is to be cremated, dissected, or buried at sea.

The Palm Beach County Medical Examiner Office is located at 3126 Gun Club Road, in West Palm Beach. This facility includes medical examination areas, evidence and specimen storage areas, tissue procurement area, X-ray facilities, as well as administrative areas and offices. The Office is open during normal business hours and observes Federal holidays.

In 2020, 5,416 deaths were reported to the PBCMEO. This included 1,834 cases investigated and determined to NOT fulfill the criteria of F.S. 406.11. These are called non-medical examiner (non-ME) cases. The PBCMEO reviewed the death certificates of 9,015 decedents who were to be cremated to determine if any fulfilled the criteria of F.S. 406.11 and thus become a medical examiner (ME) case. Of those 9,015 cremation reviews in 2020, 114 (1.2%) became ME cases because they fulfilled the criteria of F.S. 406.11. The total number of ME cases in 2020 was 3,582. The 2020 annual report concentrates on the 3,582 Medical Examiner (ME) cases.

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<sup>1</sup> <http://edr.state.fl.us/Content/area-profiles/county/palmbeach.pdf>

<sup>2</sup> [http://www.leg.state.fl.us/statutes/index.cfm?App\\_mode=Display\\_Statute&Search\\_String=&URL=0400-0499/0406/Sections/0406.11.html](http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0400-0499/0406/Sections/0406.11.html)

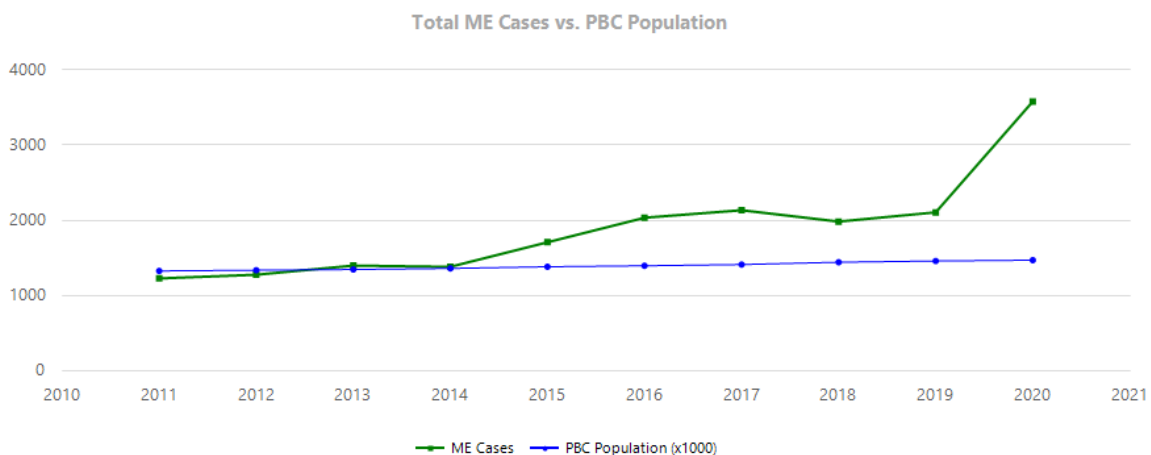
## County Demographics

According to the Florida Legislature Office of Economic and Demographic Research<sup>1</sup>, the population of Palm Beach County in 2020 was estimated to be 1,466,494. Based on data from the U.S. Census Bureau<sup>3</sup>, this is an 11.16 % increase since the 2010 census. The U.S. Census Bureau statistics for 2019 indicates that 51.5 % of the population is female<sup>3</sup>. Five percent of the population is under 5.1 years of age, while 24.4 % are over 65 years old. Non-Hispanic white is the most common race (53.5 %), followed by Hispanic or Latino (23.4 %), Black (19.8 %), and Asian (2.9 %). Foreign born persons made up 25.4 % of the population. Of those individuals under age 65 years, 17.9 % had no health insurance. The median household income (in 2019 dollars) is \$63,299 with 11.4 % of the population living in poverty. According to the National Alliance to End Homelessness, in 2019 1,397 people were homeless in Palm Beach County on a given day.<sup>4</sup>

## Workload

### Graph 1: Total ME cases vs. PBC population

Graph 1 shows the total number of ME cases from 2011-2020 compared to the population of Palm Beach County over the same time period.



The dramatic increase in the total number of ME cases from 2014 to 2017 is due largely to fatal opioid overdoses. The decrease in total ME cases in 2018 is due to a reduction in opioid fatalities. The dramatic increase between 2019 and 2020 is due to an increase in drug fatalities and the COVID-19 pandemic.

## Manner of Death

For death certification, each death must be assigned an appropriate manner of death (Figure 1). The assignment of a manner of death is for public health purposes, although other entities (state attorney, insurance companies, etc.) may use this determination for their own purposes. The manners of death are natural, accident, suicide, homicide, and undetermined. Natural death is one that is entirely caused by a disease without contribution by any injury. If the manner of death cannot be determined because there is more than one reasonable choice, then it is undetermined.

<sup>3</sup> <https://www.census.gov/quickfacts/fact/table/palmbeachcountyflorida/PST045216>

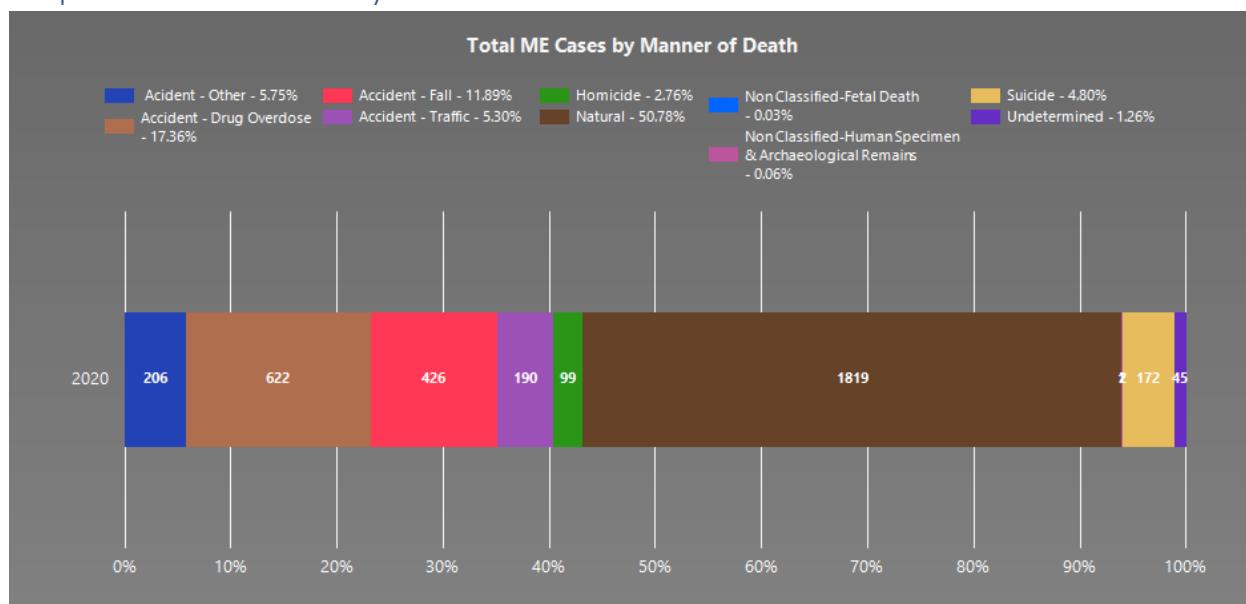
<sup>4</sup> [endhomelessness.org/homelessness-in-america/homelessness-statistics/state-of-homelessness-report/florida/](https://endhomelessness.org/homelessness-in-america/homelessness-statistics/state-of-homelessness-report/florida/)

Figure 1: Florida death certificate with manner and cause of death sections

39. PROBABLE MANNER OF DEATH		The following are under the jurisdiction of the medical examiner:		40. REPORTED TO MEDICAL EXAMINER DUE TO CAUSE OF DEATH? ___ Yes ___ No	
<input type="checkbox"/> Natural <input type="checkbox"/> Accident <input type="checkbox"/> Suicide <input type="checkbox"/> Homicide <input type="checkbox"/> Pending Investigation <input type="checkbox"/> Undetermined					
BY: MEDICAL CERTIFIER	41. CAUSE OF DEATH - PART I. (See instructions on back)		Enter the <u>chain of events</u> - diseases, injuries, or complications - that directly caused the death. Enter only one cause on a line. DO NOT enter terminal event such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology.		Approximate Interval: Onset to Death
	IMMEDIATE CAUSE (Final disease or condition resulting in death)		a. _____		
	Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST		b. _____		
			c. _____		
			d. _____		

Graph 2 shows the proportion of death by the manner of death in 2020. We further break down the accidental deaths into those involving motor vehicles, drug overdoses, falls, and the other types of accidents such as drownings, etc. Finally, we also include non-human remains or archeologic specimens that were examined in 2020.

Graph 2: Total ME cases by the manner of death

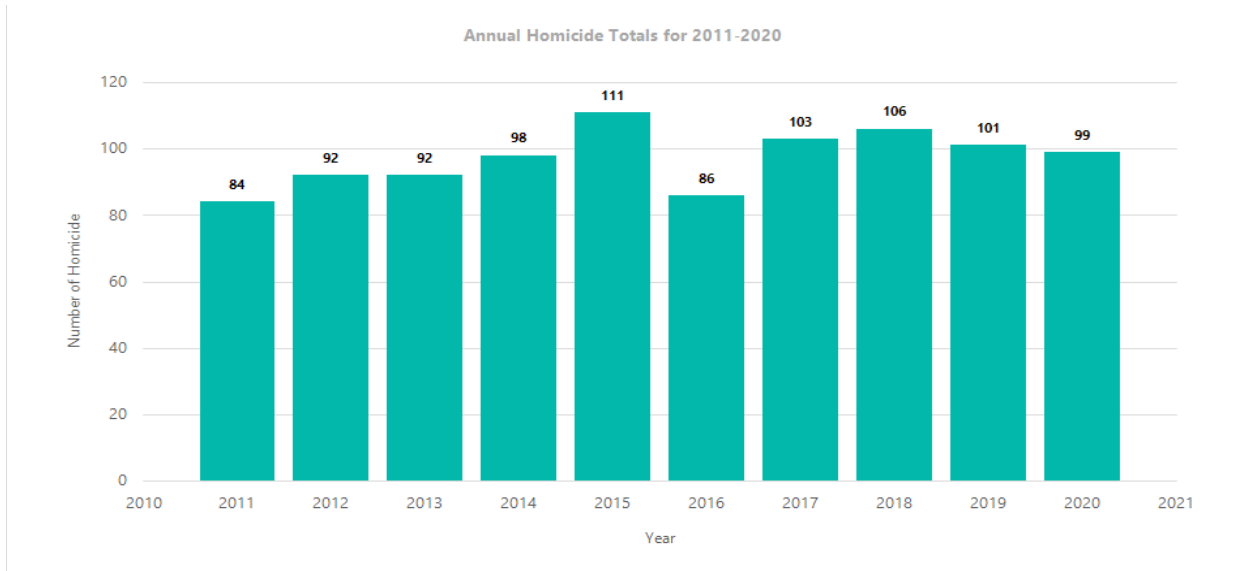


In 2020, the majority (50.78%) of ME cases were naturals, and most of the accidents were fatal drug overdoses (17.36%). Motor vehicle fatalities constituted 5.30% of all accidents and falls another 11.89% of accidents. The majority of fatal falls resulted in head injury or fractures of the extremities in elderly people. In 2020, 2.76% of ME cases were homicides, and 4.8% were suicides.

## Homicides

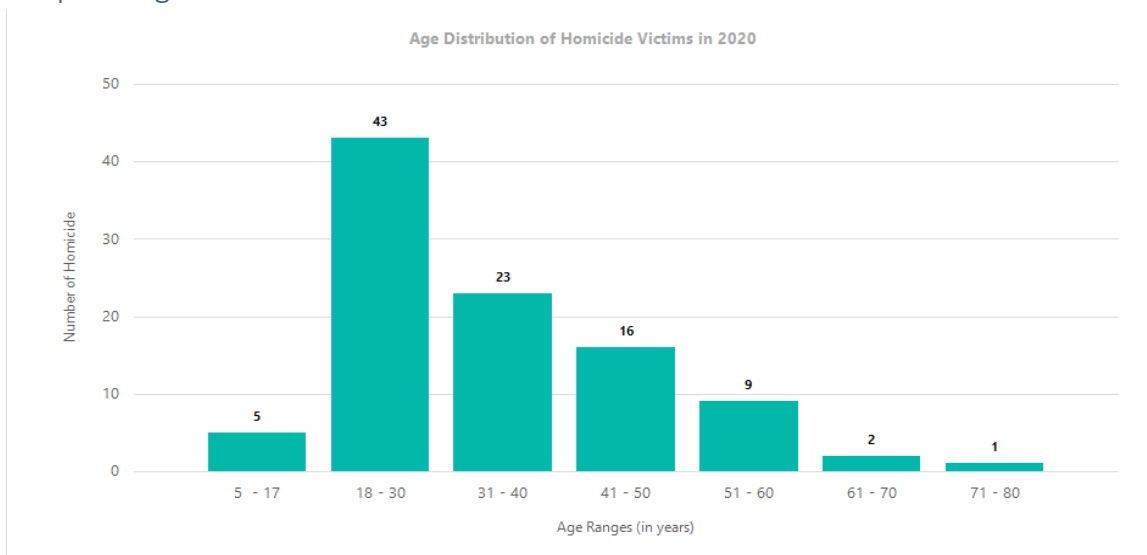
For death certification, homicide is defined as death at the hands of another person. Homicide determination is not a legal decision. The state attorney and investigative law enforcement agency will determine if and what criminal charges will be brought forth, not the medical examiner. Graph 3 depicts homicide totals for the last ten years.

Graph 3: Annual homicide totals for 2011-2020



The average annual number of homicides for the last ten years is 97. In 2020, there were 2 more homicides than the annual average. The male: female ratio for homicide victims in 2020 was 4.3: 1. Most 2020 homicide victims were blacks (65), followed by whites (18) and Hispanic/Latino (16). The average age in homicide victims was 33 years and the age distribution of homicide victims is seen in graph 4.

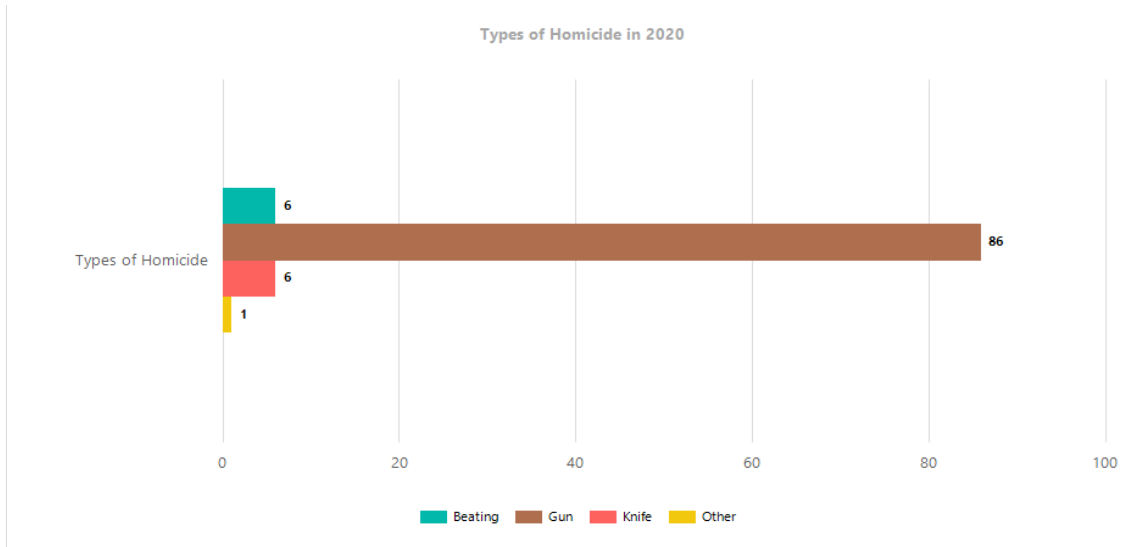
Graph 4: Age distribution of homicide victims in 2020



The most common means or instrument of death in the 2020 homicides was the gun, as seen in graph 5.

Guns far exceeded stabbings or beatings as the means to kill another person in 2020. It may be surprising to some that no strangulations, suffocations, poisonings, or drownings were used to kill another person in 2020. Guns are much more efficient killing instruments that do not require proximity, intimacy, or subterfuge to accomplish the task.

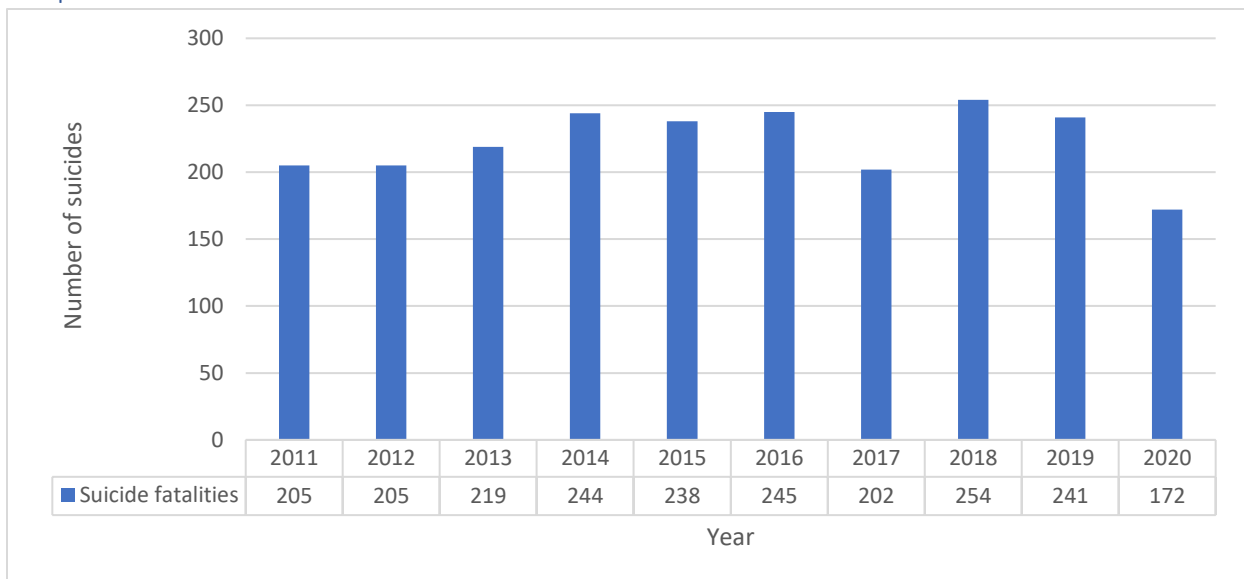
Graph 5: Types of homicides in 2020



## Suicides

For death certification, suicide is defined as death at one's own hands. Graph 6 shows the annual suicide total for 2011 to 2020.

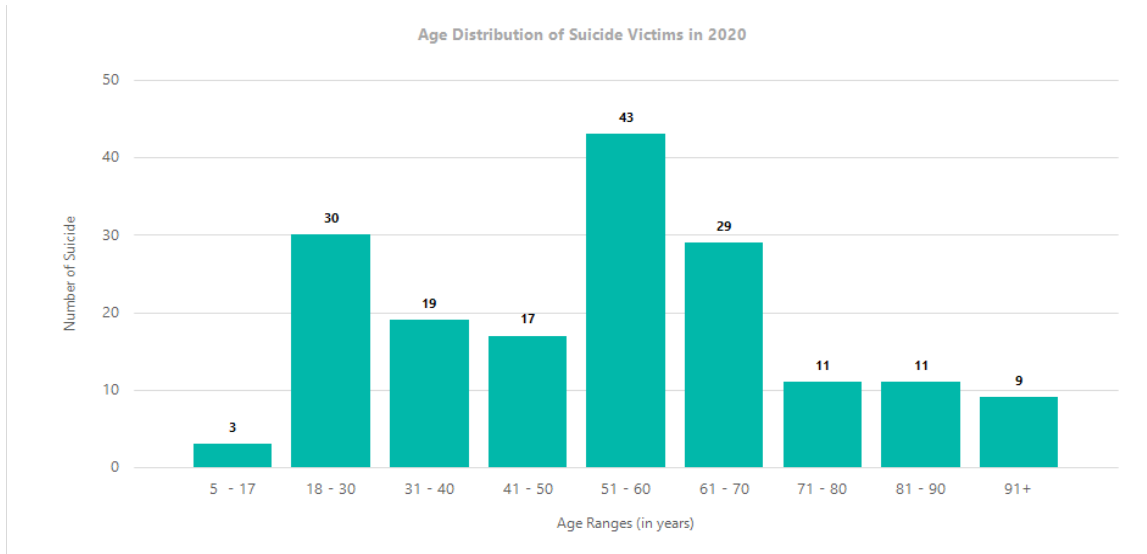
Graph 6: Annual suicide totals for 2011-2020



The average annual number of suicides for the last ten years is 222. In 2020, there were 50 less suicides than the annual average, contrary to the reported national trend during the COVID-19 pandemic. The male to female ratio for suicide victims in 2020 was 4.7:1. Most 2020 suicide victims were white (140), followed by Hispanic/Latino (18), black (11), and Asian/other (3). The average age of a suicide victim is 53 years. The age distribution of suicide victims is seen in Graph 7.



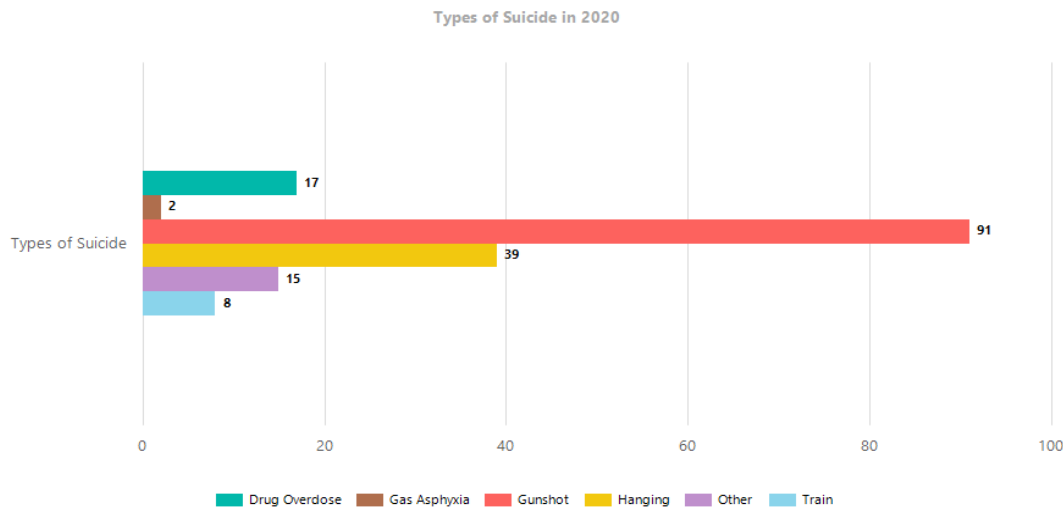
Graph 7: Age distribution of suicide victims in 2020



The most common means or instrument of death in the 2020 suicides was the gun, as seen in graph 8.

In 2020, guns exceeded drugs and hanging as the preferred means to kill yourself. Gas asphyxia included two people who died from carbon monoxide poisoning (usually car exhaust). Eight suicides involved injuries sustained by trains. The other types of suicide included motor vehicles, drowning, thermal injuries and smoke inhalation, obstruction of airway by a plastic bag, and incisions of wrists and necks.

Graph 8: Types of suicides in 2020

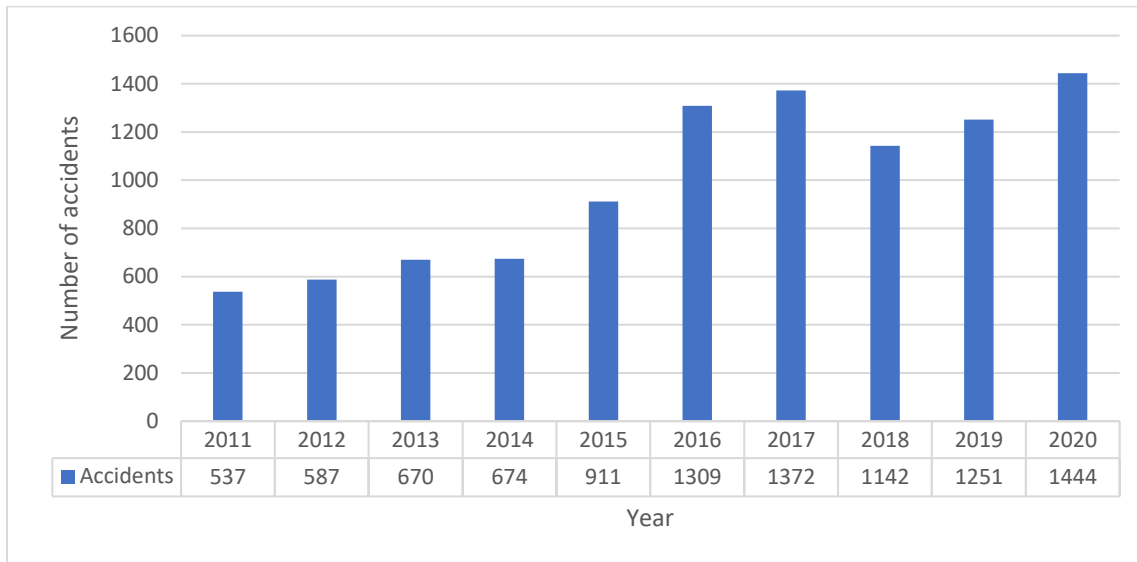


## Accidents

Accidents are deaths that result from an unintentional injury. In this report, we further break down the accidents into three large subgroups: deaths from motor vehicle collisions, drug overdoses, and falls. These subgroups are examined in greater detail later. In Graph 9, the marked increase in accidental deaths from 2014 to 2017 is due to the rise in drug, predominantly opioid fatalities. A decrease in opioid deaths

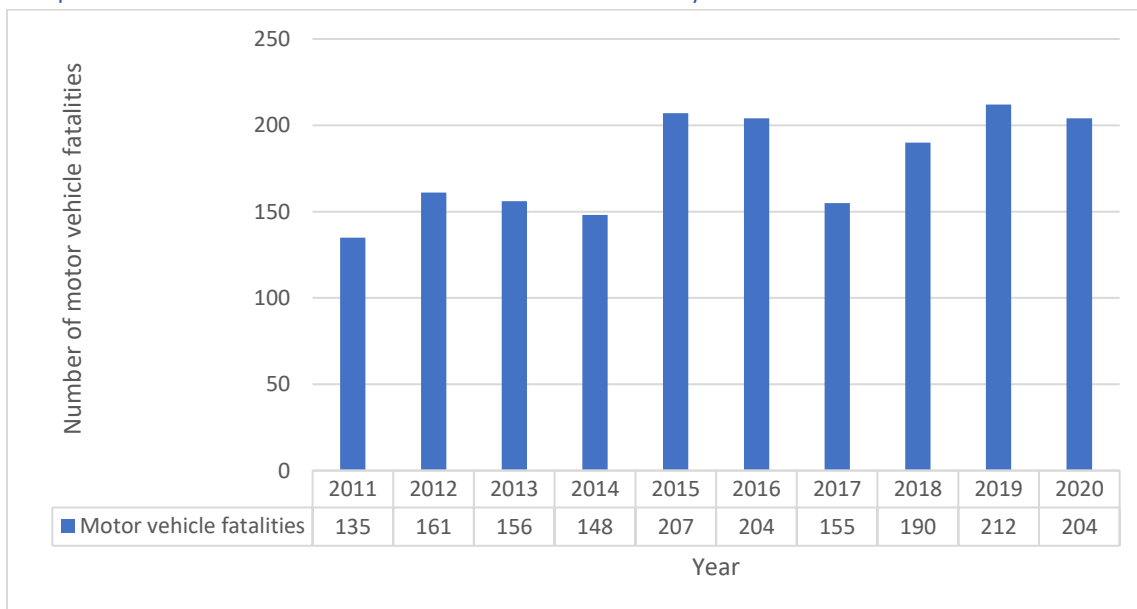
caused the decrease in accidents in 2018. Drug deaths slightly increased in 2019 and sharply increased in 2020 explaining the rise in annual accidental deaths.

Graph 9: Annual accident totals for 2011-2020



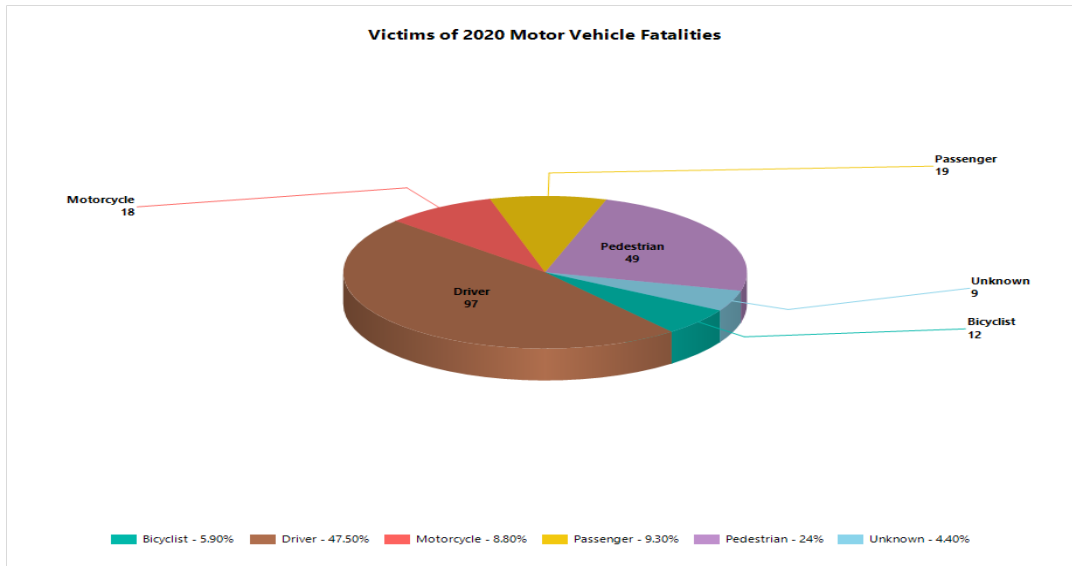
## ACCIDENTS: Motor Vehicle Fatalities

Graph 10: Annual accidental motor vehicle fatality totals for 2011-2020

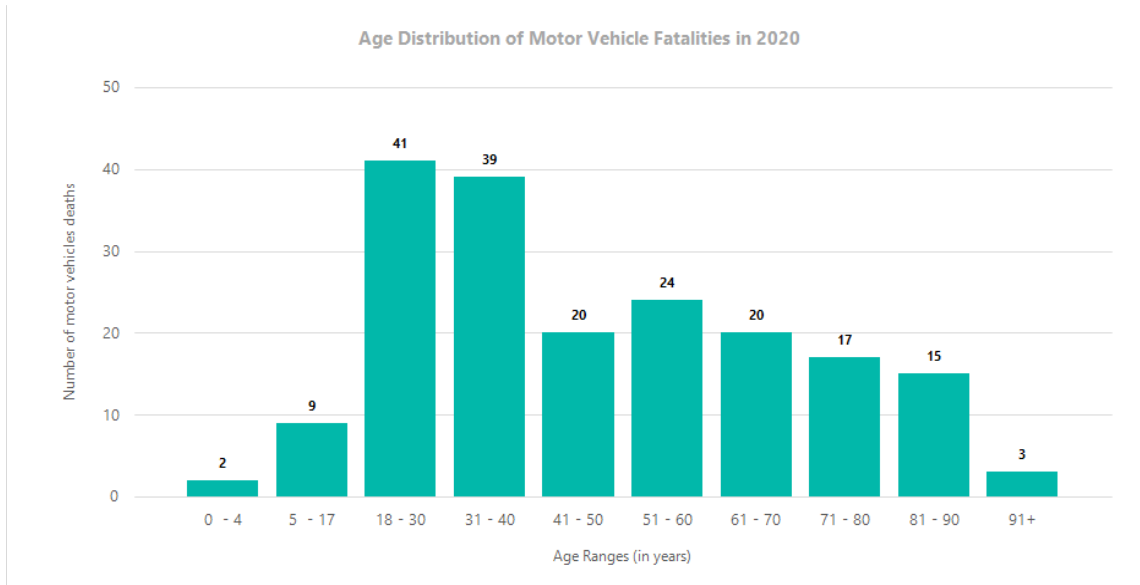


There were 204 accidental motor vehicle fatalities in Palm Beach County for 2020. Graph 10 shows the annual number of motor vehicle deaths from 2011 to 2020. In 2020 47.5% of those killed in motor vehicle collisions were driving a car or truck. The remaining victims' percentages are seen in Graph 11. In 2020, men were 4.2 times more likely to accidentally die in a motor vehicle collision than women. Whites were 1.9 times more likely to accidentally die in a motor vehicle crash than Blacks and Hispanics. The average age of the victims was 48.5 years old. The age distribution by decades is seen in graph 12.

Graph 11: Victims of 2020 Motor Vehicle Fatalities



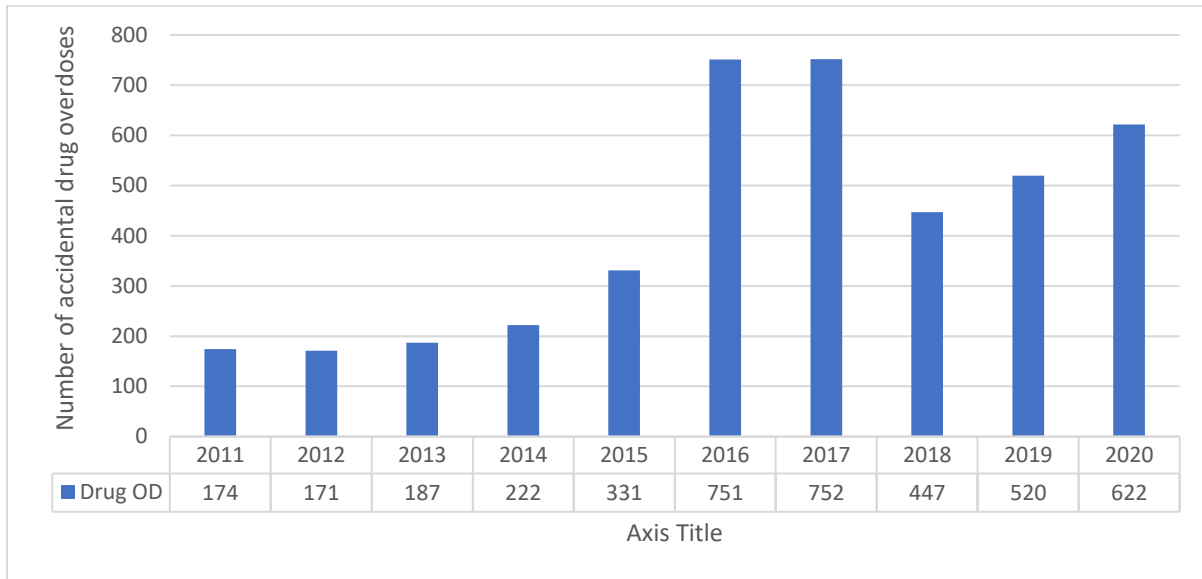
Graph 12: Age Distribution of Motor Vehicle Fatalities in 2020



## Accidents: Drug Overdoses

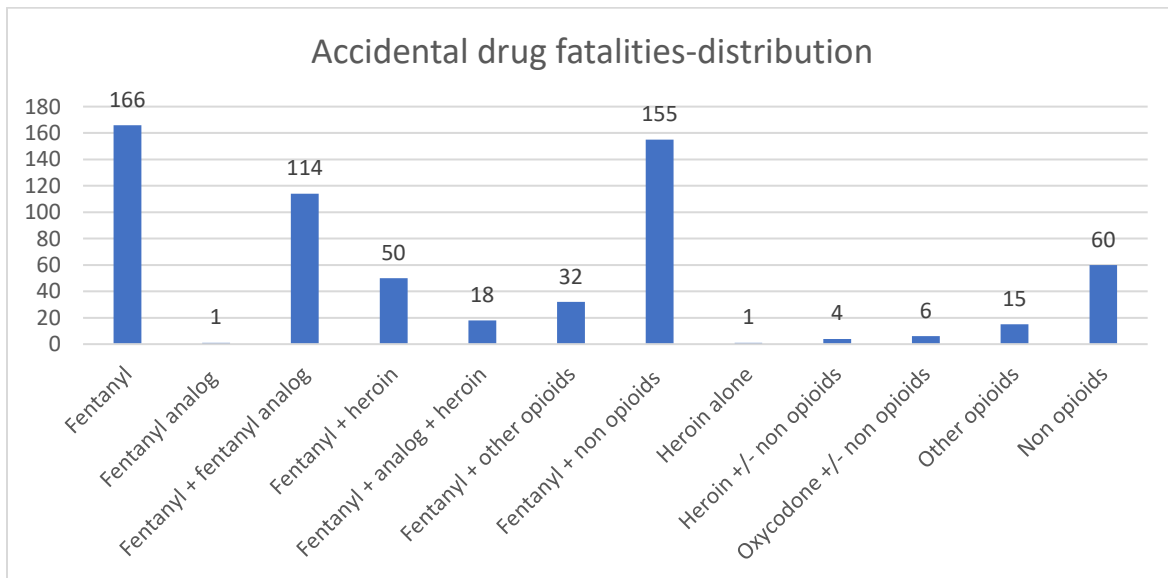
If a drug or drugs accidentally caused or contributed to the death of a person, then this was counted as an accidental drug death. Alcohol is considered a drug along with illicit (i.e., heroin, cocaine), prescription, and non-prescription medications. Opioids are a subset of both illicit (i.e., heroin, fentanyl, fentanyl analogs) and prescription medications (i.e., oxycodone, fentanyl). Suicidal drug overdoses are not included in these graphs as well as those drug overdoses in which the manner of death was undetermined.

Graph 13: Annual accidental drug overdoses totals for 2011-2020



In 2020, there were 642 drug fatalities in Palm Beach County; of those 622 were accidental in manner. Of the 622 accidental drug deaths 568 (91.3%) involved one or more opioid drugs. The distribution of the drug fatalities in 2020 is seen in graph 14.

Graph 14: Opioid Drugs in Accidental Drug Deaths, 2020

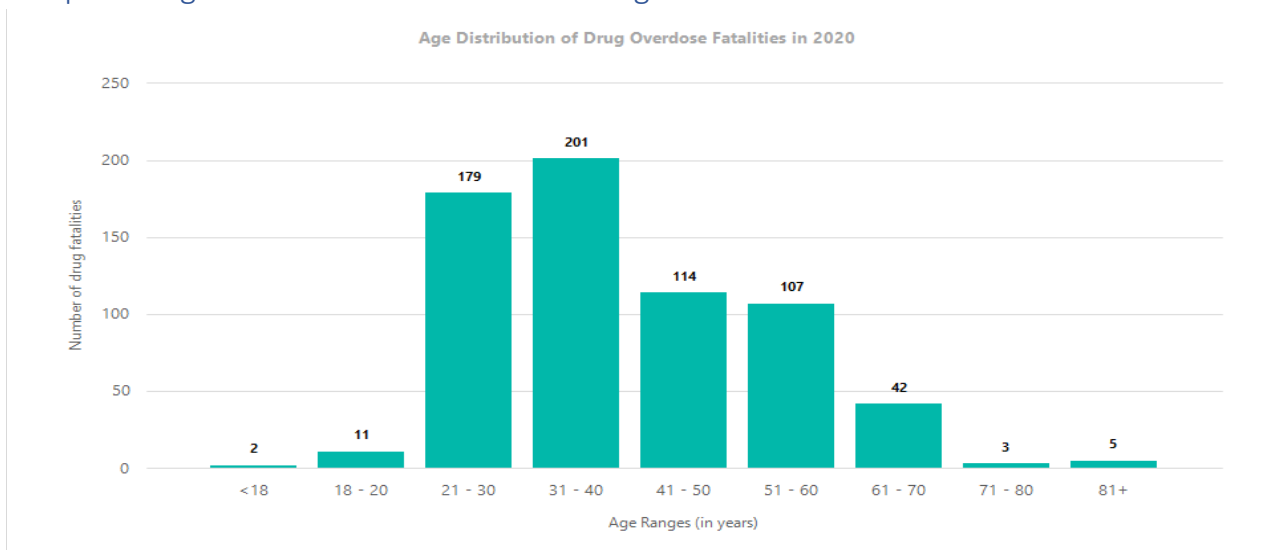


Graph 14 depicts common combinations of opiates used in accidental drug fatalities. If not specified on the legend, these combinations may include additional illicit and prescribed drugs contributing to the cause of death. Of the 622 cases, 535 (86%) included fentanyl, which far exceeded the other opioids in their capacity to kill.

Oxycodone is depicted above with other non-opioid drugs, however, it was also present in deaths from the combination fentanyl and other opioids (19 cases), and in three cases of the combination of fentanyl plus heroin. It is worthy to mention that deaths secondary to the combination of fentanyl and fentanyl analogs also had a significant presence of cocaine and alcohol. Non-opioid drugs include prescribed or illicitly used benzodiazepines (Ex. alprazolam, clonazepam), ethanol, and other illicit drugs like cocaine and methamphetamine.

In 2020, the average age of accidental drug fatality victims was 40 years old. The age distribution of those dying from an accidental drug overdose is seen in Graph 15. The victims were predominantly men (3:1 men: women) and whites were 5.3 times more likely to die of an accidental drug overdose than all other races.

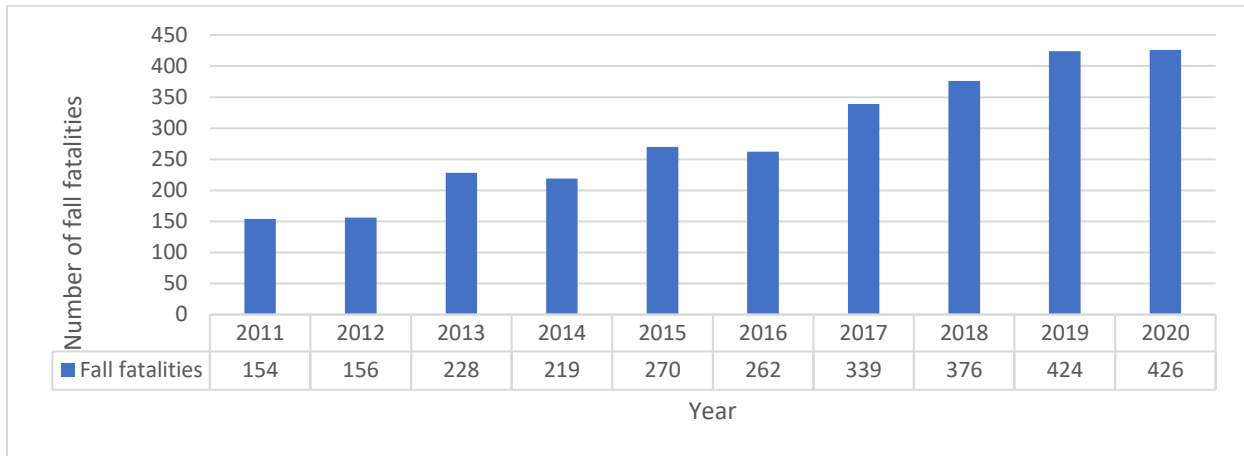
Graph 15: Age Distribution of Accidental Drug Overdose Fatalities in 2020



## Accidents: Falls

Fatal falls rose over recent years as seen in graph 16, however, the number of falls appear to have leveled in 2020 as compared to 2019. The vast majority of these deaths occur in unstable elders who fall from a standing position. The average age at the time of death is 74.8 years. There was a slight predominance in women (1.09 women: men) and whites were more likely to die of an accidental fall over all other races (13.5:1 white: other).

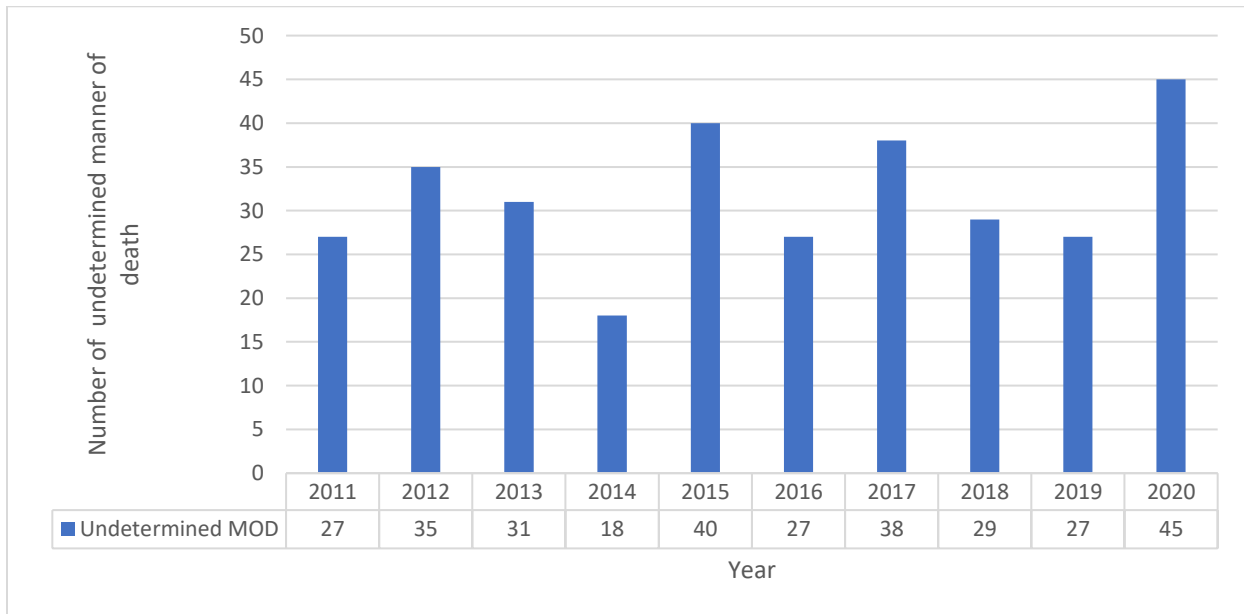
Graph 16: Annual fatalities caused by falls totals for 2011-2020



### Deaths with an Undetermined Manner of Death

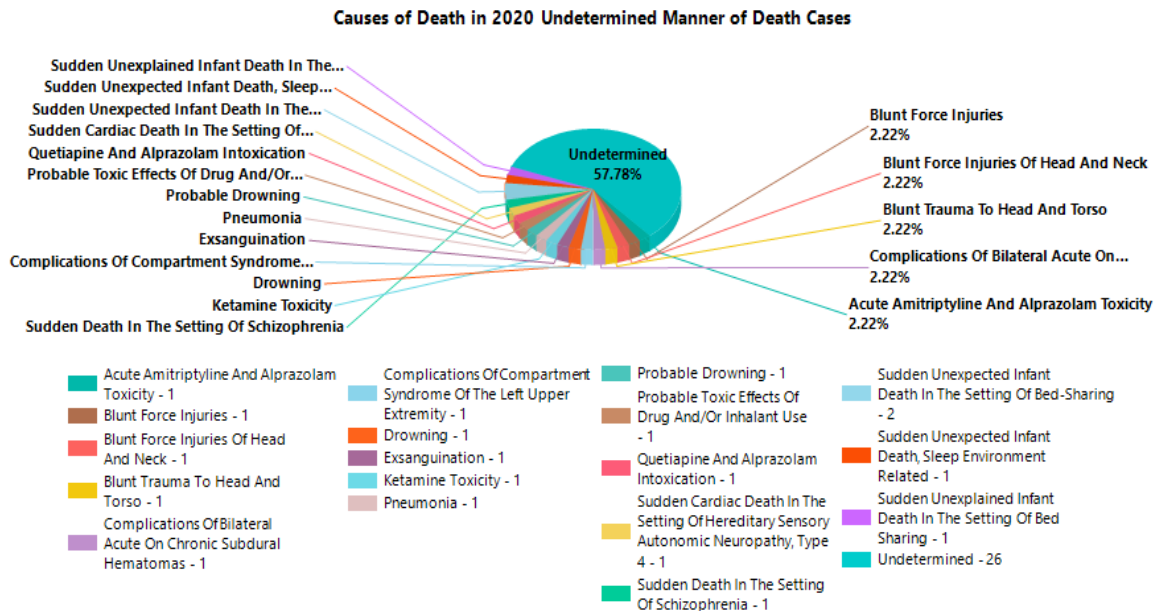
The manners of death are natural, accident, suicide, homicide, and undetermined. The manner of death is how the death came about and is for death certification and public health purposes. If the manner of death cannot be determined because there is more than one reasonable choice, then it is undetermined. The annual number of deaths with an undetermined manner from 2011 to 2020 is seen in graph 17.

Graph 17: Annual undetermined death totals for 2011-2020



In 2020, there were 45 deaths in which the manner of death could not be determined. The causes of death in these cases are seen in graph 18.

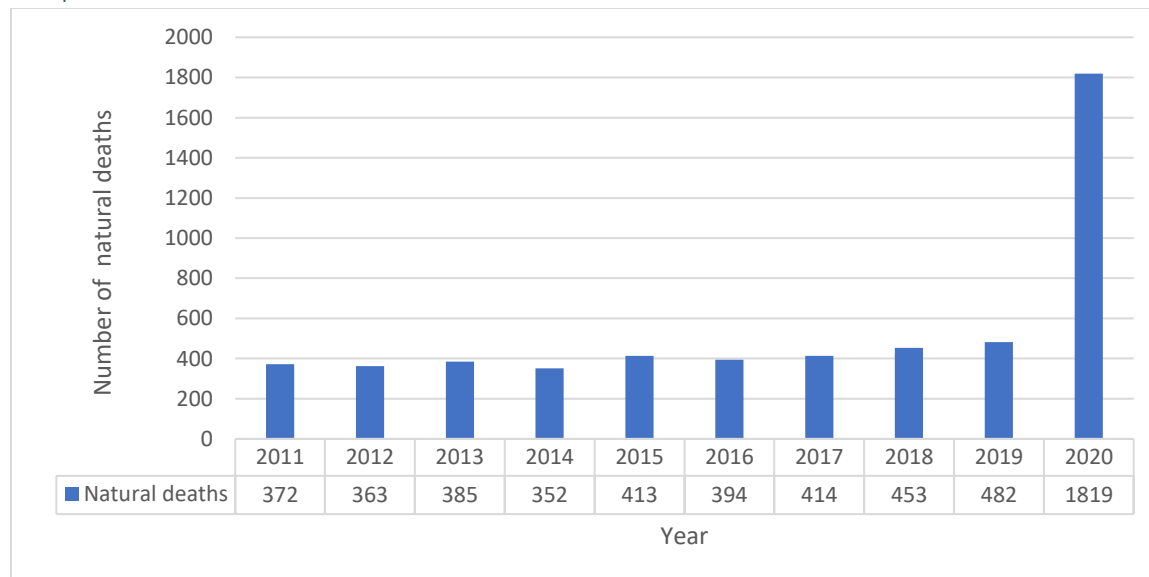
Graph 18: Causes of Death in 2020 Undetermined Manner of Death Cases



## Natural Deaths

A natural death is one that is entirely caused by a disease without contribution by any injury. The annual number of natural deaths from 20011 to 2020 is seen in graph 19.

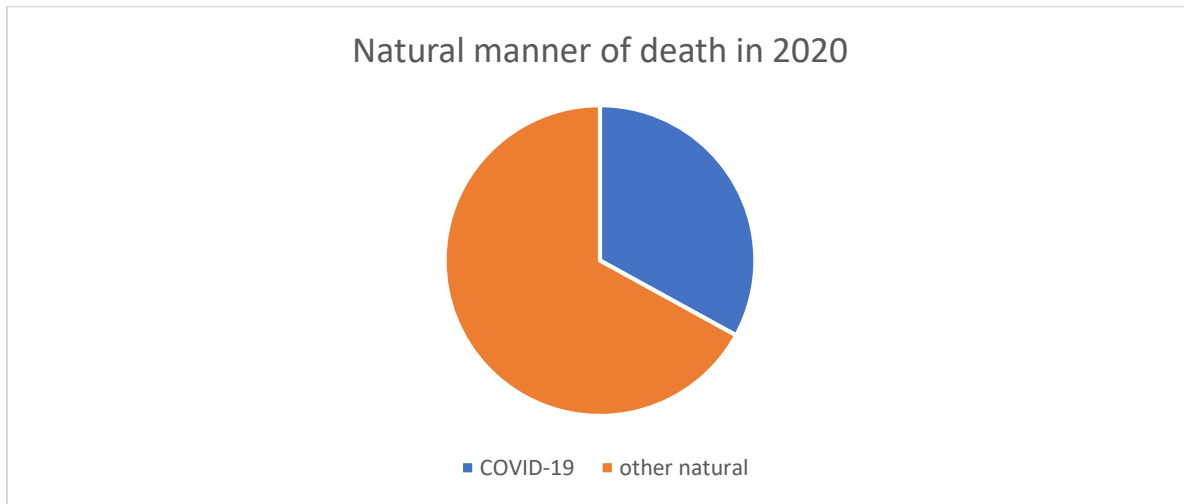
Graph 19: Annual natural death totals for 2011-2020



In 2020, the Medical Examiner Office certified 1,818 natural deaths. Thirty three percent of natural deaths were due to COVID-19 or its complications. Of the remaining natural deaths the most common causes include atherosclerotic and hypertensive cardiovascular disease and their sequelae including strokes, heart failure, and myocardial infarctions. Graph 20 shows the percentage of COVID-19 cases versus overall

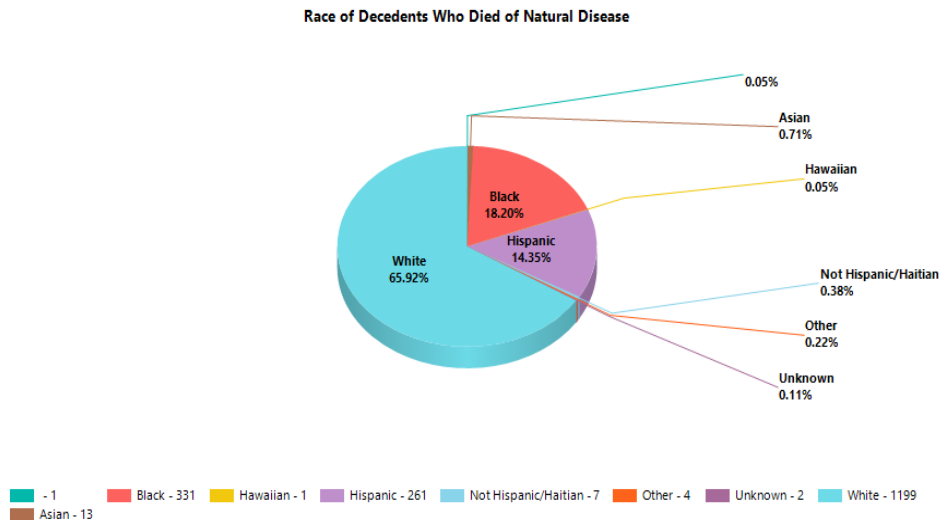
natural cases. Other natural causes included malignancies, chronic ethanolism or end stage liver disease, and pulmonary diseases not associated to COVID-19.

Graph 20. Causes of Natural Death Examined by the Medical Examiner in 2020



In 2020, the average age of those who died of natural disease and fell under medical examiner jurisdiction was 74 years with a range of 1 month to 102 years. Men outnumbered women 1.46 to 1. Graph 21 shows the relative proportions of people who died of natural disease by their race.

Graph 21: Race of Decedents Who Died of Natural Disease and Examined by the Medical Examiner in 2020



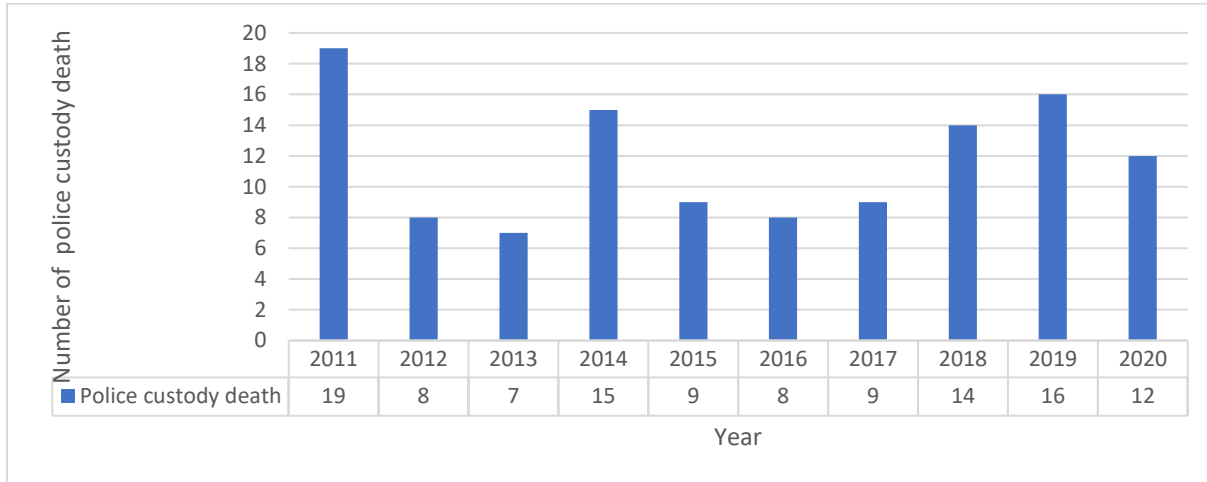
## Deaths in Police Custody

Deaths in police custody are of two broad categories: law enforcement involved and penal institution, as defined by the Florida Medical Examiner Commission. In 2020, twelve men died in police custody. Their ages ranged from 20 to 73 years old. Six men died of a natural disease while in jail or in prison. Two deaths



were deemed undetermined (unknown causes) and two deaths were secondary to accidental overdose. Police shot two men in two separate incidents.

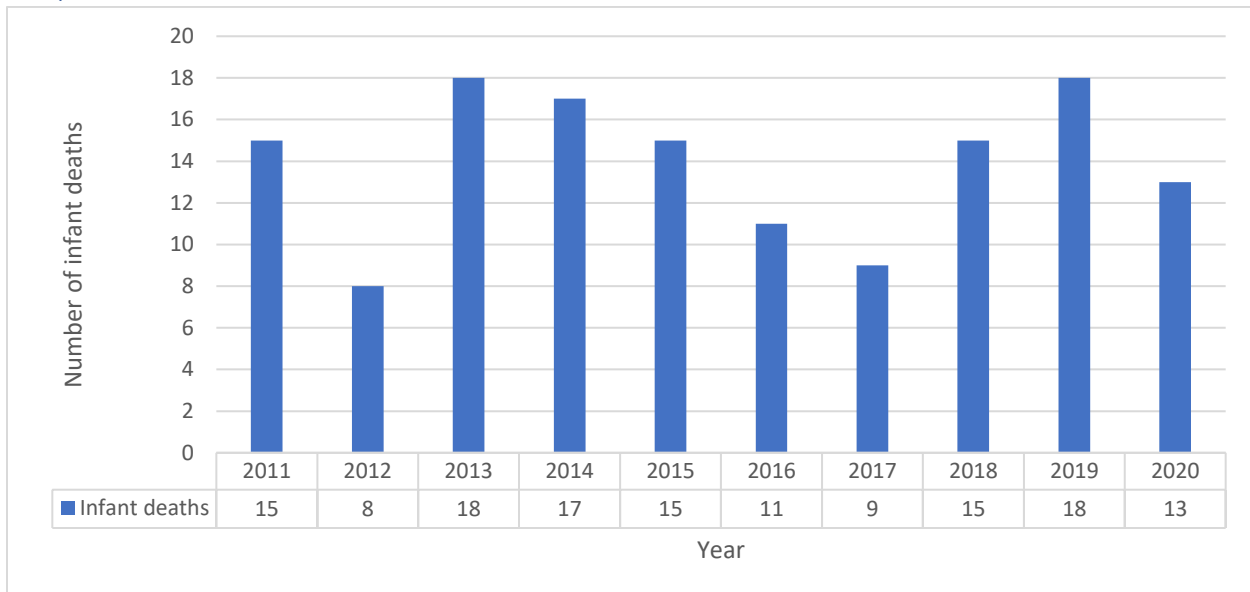
Graph 22: Annual police custody deaths totals for 2011-2020



## Infant Deaths

An infant is a child under the age of one year. Graph 23 shows the number of infant deaths from 2011 to 2020.

Graph 23: Annual infant deaths totals for 2011-2020



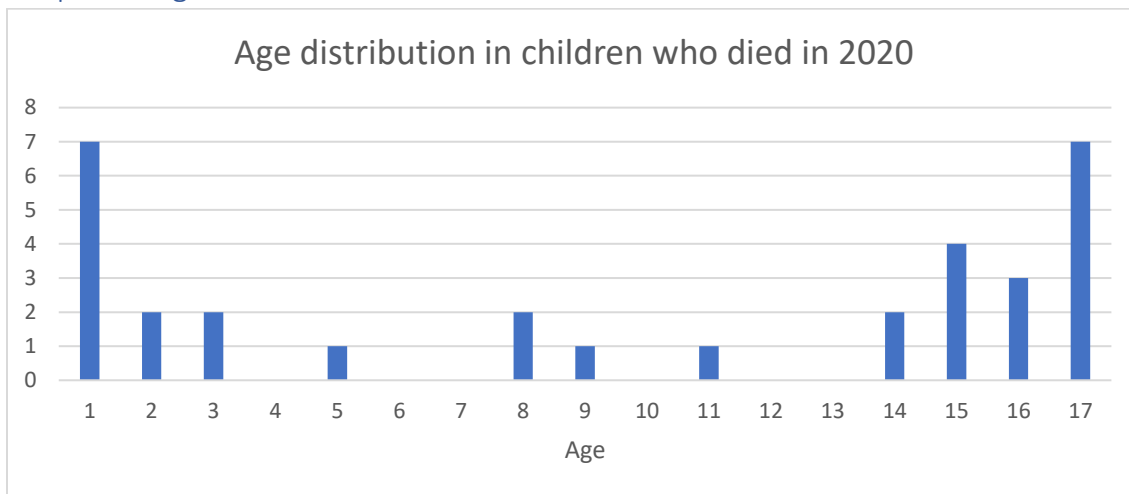
In 2020, thirteen infant deaths were investigated by the Palm Beach County Medical Examiner’s office. Nine infants were girls and four were boys. Five infants were White or Hispanic and eight infants were Black. The age range was 1 to 12 months and the average age was 3.8 months. The causes of death varied and included sudden unexpected death of infants in association to bed sharing or unsafe sleep

environment, and blunt trauma. The manners of death included natural, homicide, accident and undetermined. Four cases remained undetermined after a complete autopsy, toxicology testing, microscopic examination, and scene examination with doll re-enactment.

## Child Deaths

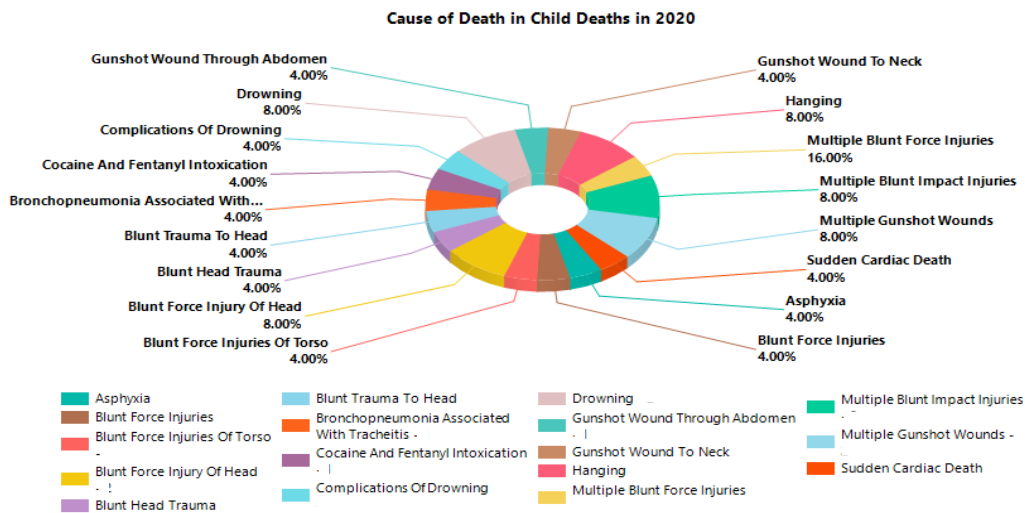
For our purposes, a child is greater than 1 year old, but less than 18 years of age. By this definition, 32 child deaths were investigated by the Palm Beach County Medical Examiner’s office in 2020. The age distribution of child deaths in 2020 as seen in graph 24. The ratio of boys to girls was 1.7 to 1. There were 13 Black children, 11 White children, 7 Hispanic children, and 1 Asian child.

Graph 24: Age distribution in children who died in 2020

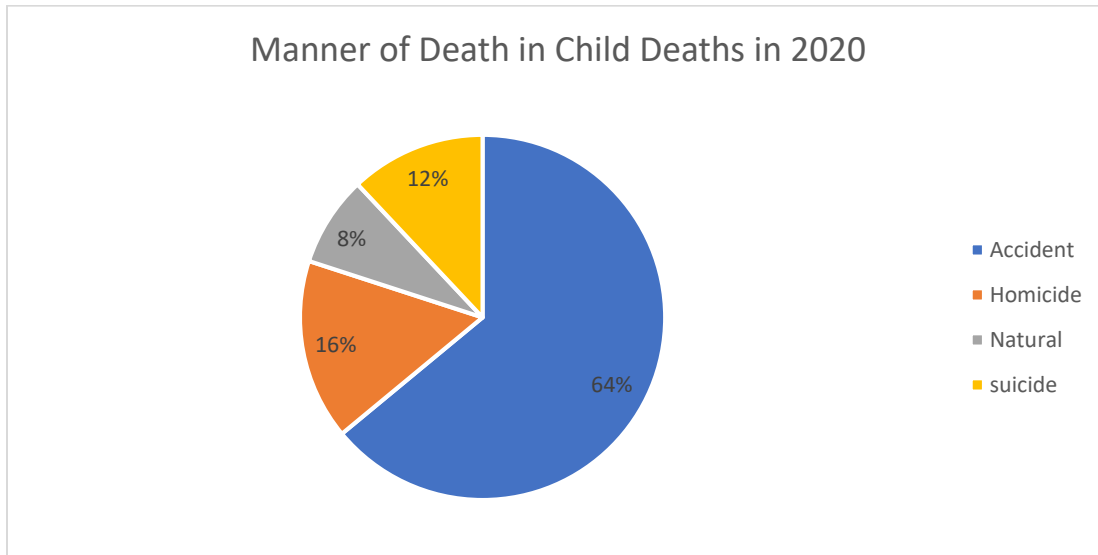


The distribution of cases by cause and manner of death are seen in Graph 25 and Graph 26 respectively.

Graph 25: Cause of Death in Child Deaths in 2020



Graph 26: Manner of Death in Child Deaths in 2020



## Frequently Asked Questions (FAQ)

District 15: Palm Beach County Medical Examiner's Office website

<http://discover.pbcgov.org/medicalexaminer/Pages/default.aspx>

Florida Statute 406

[http://www.leg.state.fl.us/statutes/index.cfm?App\\_mode=Display\\_Statute&Search\\_String=&URL=0400-0499/0406/0406PARTIContentsIndex.html](http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0400-0499/0406/0406PARTIContentsIndex.html)

FAC 11-G

<https://www.flrules.org/gateway/RuleNo.asp?ID=11G-2.006>

Practice Guidelines for Florida ME

<https://www.fdle.state.fl.us/MEC/Publications-and-Forms/Documents/2010-Guidelines-Adopted.aspx>

Electronic Death Certificate

Email: [D15ME@pbcgov.org](mailto:D15ME@pbcgov.org)

Florida Association of Medical Examiners

<http://www.fameonline.org/>