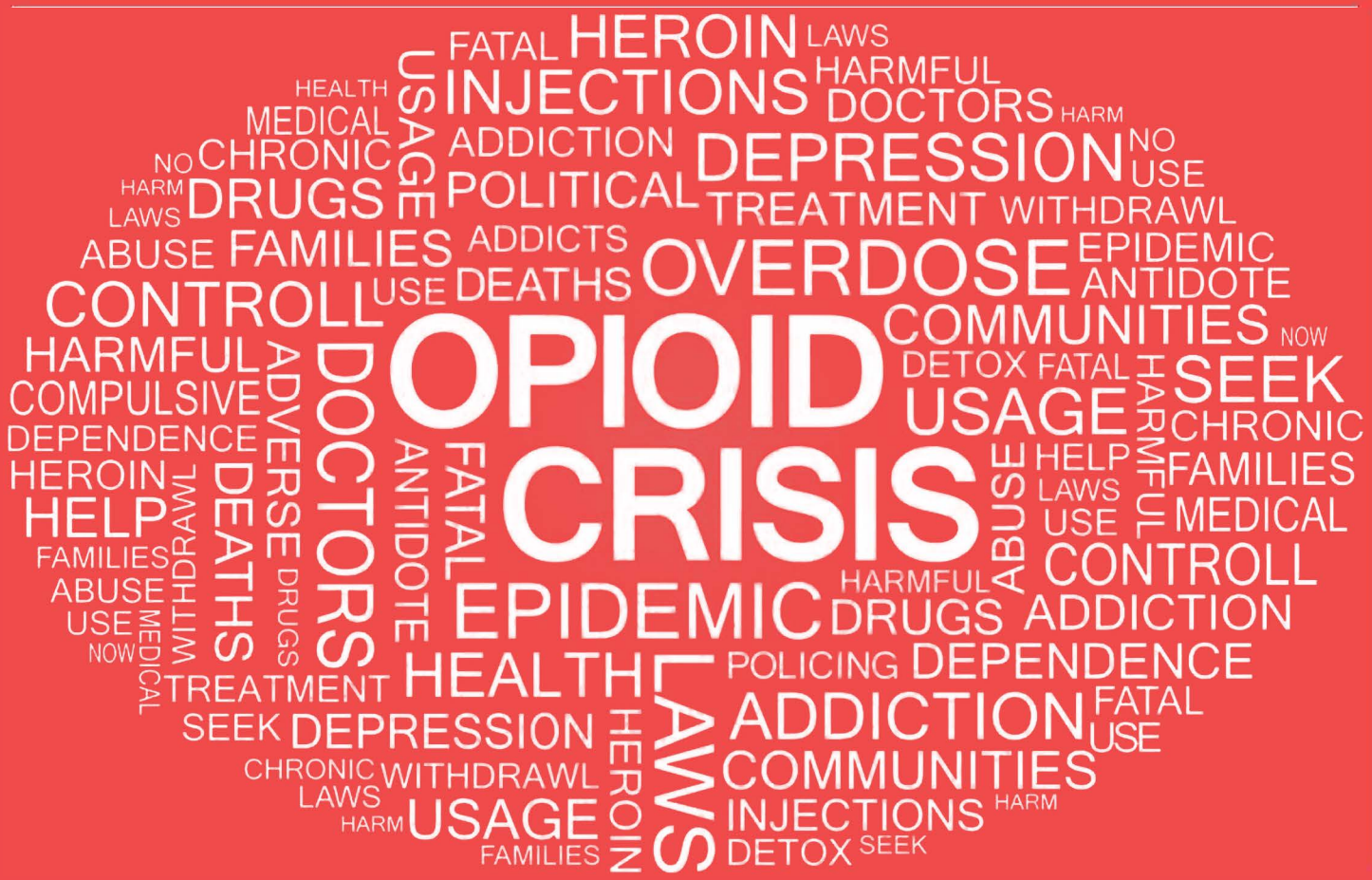


The Changing Overdose Crisis in JAX

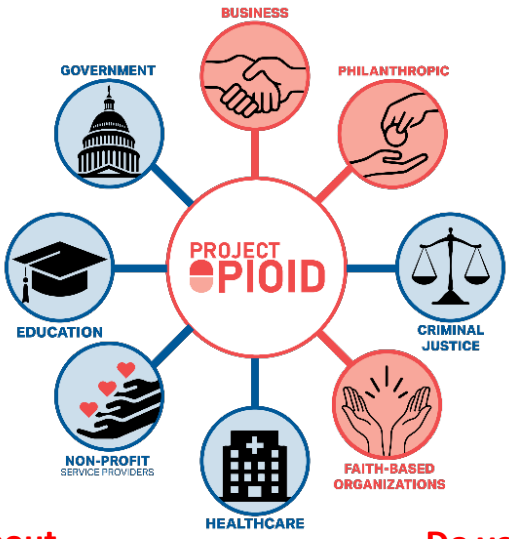
A Community Needs Assessment

PROJECT OPIOID JAX

PROJECT OPIOID JAX

At Project Opioid, we empower leaders to confront the overdose crisis. We align leaders around one shared goal: to reduce opioid deaths in their communities. We educate leaders on how to build a coalition, launch a regional overdose initiative, and promote high-level advocacy to transform and save the greatest number of lives in their communities.

Founded in 2018, Project Opioid was created in response to the raging opioid epidemic that claimed the lives of nearly 450,000 people across America in one decade. Since then, the opioid crisis driven by the pervasive use of fentanyl has reached unprecedented heights. This new dynamic is contributing to the greatest mental health, substance abuse, and overdose crisis in U.S. history. The startling new data on opioid overdose and death calls for leaders to urgently embrace a different approach to solving the overdose epidemic.



Do you have questions about the report?

Contact the Author:

Kendall Cortelyou, PhD

Kendall.Cortelyou@ucf.edu

407-461-3227

Do you want to get involved in Project Opioid JAX?

Contact Us:

TJ Ward, North Florida Director of Advocacy

tj.ward@myjaxchamber.com

Key Findings:

1) Fatal overdoses rose again in calendar year 2021 and remain the highest the nation, state, and region have ever seen.
   a. Fatal overdoses reached over 108,642 in the United States for the period between February 2021 and February 2022, an 11.9% increase from the same time period in 2020-2021. This equals approximately 9,053 deaths a month, and 297 a day. (cdc.gov)
   b. In the state of Florida, there were 8,2205 expected overdose deaths between February 2021 and February 2022, a 6% increase in the same time period in 2020-2021. This equals 668 overdose deaths a month, and 23 a day. (cdc.gov)
   c. In Duval County, there were 538 overdose deaths between December 2020 and December 2021, a 3% increase in the same time period in 2019-2020. This equals 45 overdose deaths a month, and over 1 a day. (cdc.gov)
   d. Duval County's age adjusted death rate for 2020 was 52.8 compared to 34.6 for the state of Florida. (flhealthcharts.gov)

2) Opioid prescribing is at an all-time low in the state of Florida, but Duval County prescribes more opioids than other parts of the state.
   a. There were 4 million fewer opioid prescriptions written in the state of Florida in 2020 compared to 2016, a 35% reduction.
   b. In Duval County, opioids were dispensed at a rate of 76.5 per 100 of the population in 2020, this is down from a rate of 88.6 in 2016 but remains higher than the State and National average which are both 43.3. (CDC.gov)

3) Fentanyl's impact on our region and the state of Florida continues to grow and kills more individuals than any other drug.
   a. In the state of Florida, fentanyl was the most frequently occurring drug found in decedents, outpacing alcohol in the first half of 2021, this was an 11% increase from the previous year. (FDLE)
   b. Deaths caused by fentanyl increased by 9% in the first half of 2020 versus the same time period in 2021 in the state of Florida. (FDLE)
   c. In Duval County, Fentanyl is estimated to have been the cause of death in 70% of the overdose deaths in 2021, an increase of over 950% since 2015. (ME provisional data)

4) Fentanyl is often mixed with other drugs including cocaine, methamphetamines, heroin, and alcohol.
   a. Of the 600 overdose deaths that occurred in Duval County in 2021, only 204 (34%) had only one drug present at the time of death. Of these 204 deaths, 48% were caused by fentanyl, 25% by cocaine, 9% by methamphetamines and 5% by ethanol (alcohol). (ME provisional data)
   b. Of the 421 deaths in Duval County that were caused by fentanyl during 2021, 44% co-occurred with cocaine, 29% co-occurred with ethanol (alcohol), 29% with methamphetamines.
   c. Mixing fentanyl with other drugs increases their potency and potential for overdose and death.

Introduction:

Every month, and every year, it seems like the United States has reached another grim milestone in the fight against drug overdoses. Since 2018, we have seen a steady increase in the number of Americans losing their lives to this deadly epidemic, and there has yet to be a reprieve. Leaders have done the things they know to do, and physicians have drastically cut back on not only the number of prescription opioids that are being prescribed but the strength of these drugs as well. Community advocates have championed drug take back events that collect thousands of pills each year, and while these valiant efforts have likely saved thousands of people from becoming addicted to opioids, fatal overdoses are at an all-time high.

As it stands, drug overdoses kill about 289 people each day in this county and are the leading cause of death for Americans ages 18-45. The Center for Disease Control (CDC) estimates that overdose deaths accounted for over 2 million years of potential life lost in 2020 (CDC, WONDER). However, much like COVID-19, this pandemic has not impacted each subset of our population equally. Numerous research studies have highlighted the impact that this new wave of the opioid crisis has had on the minority population, most noticeably the Black and Hispanic populations. In addition, recent reports have highlighted the dramatic effect that this wave, and most importantly illicit fentanyl has had on the youth of our country as well.

The purpose of this report is to evaluate the current state of the drug overdose crisis in Duval County and around the state and determine not only the magnitude of the overdose crisis in our community, but more importantly, who is dying and why. We will seek to answer the following questions to help leaders understand the crisis and formulate strategies to save lives in our community and beyond.

1) Is the overdose crisis still growing in Duval County? How does Duval County compare with the rest of the state?
2) Is Florida still a major contributor to the number of prescription opioids that are being dispensed in the US? How does Duval County compare?
3) Who is dying from drug overdoses in Duval County? How does this compare to other locations?
4) What type of drug is killing the residents of Duval County? How are these drugs getting to individuals in our community?

Methodology:

There are several methods and resources available to track overdose data at the national, state, and county level and, while all these data sets rarely agree down to the number, each represents an important aspect of the overdose crisis. Therefore, several different reporting agencies, as well as original data were used to compile these results. It is important to note, that while the exact numbers may not always align, the trends represented by each of these reports is essential to understanding the changing nature of the overdose crisis in Florida.

- Center for Disease Control – Reports overdose deaths from their Vital Statistics Reporting System (stemming from death certificates) for 12-month periods. These are classified according to the decedent's county of residence and the month in which the death occurred.
- FDLE Medical Examiners Commission – Reports overdose deaths through the Medical Examiner's offices from all 25 districts in the state of Florida and includes demographic as well as toxicology results indicating the types of drugs in decedents.
- Raw Data Obtained from the Medical Examiner's Office – This data is preliminary and obtained from the medical examiner's office prior to final approval. These numbers should be considered provisional.

Information to answer these research questions was drawn from peer-reviewed research, databases, research reports, and news articles. The data used for the July-December 2020, and January-June 2021 county-level analysis was provided by the Florida Department of Law Enforcement Medical Examiner's Offices for each county in this needs assessment. More data and information came from Community Health Assessments, WONDER, Drug Epidemiology Network, DEA, HIDTA, PDMP, FROST, and NSDUH. CDC data is vital to the compilation of this report.

Geographic Region:

The scope of this report includes an analysis of the overdose crisis in the state of Florida, as well as a deep dive into the Jacksonville community. According to the 2020 US Census, Florida is the third-largest state in the country with over 21.5 million residents that is growing in both size and racial and ethnic diversity. While the majority of Floridians are White, the state has seen increasing ethnic diversity in the last 10 years, as both the Black and Hispanic populations have grown. The 2020 Florida poverty rate is 12.7% of the population, which is slightly higher than the US poverty rate of 11.4%.

Table 1		
	Duval County	**Florida**
Population	995,567	21,477,737
Percentage White	52.0%	53.2%
Percentage Black	30.8%	16.9%
Percentage Hispanic	10.5%	26.4%
Percentage Asian	5.0%	3.0%
Percentage Male	48.5%	48.9%
Poverty Rate	13.5%	12.7%

What is the opioid crisis and how did we get here?

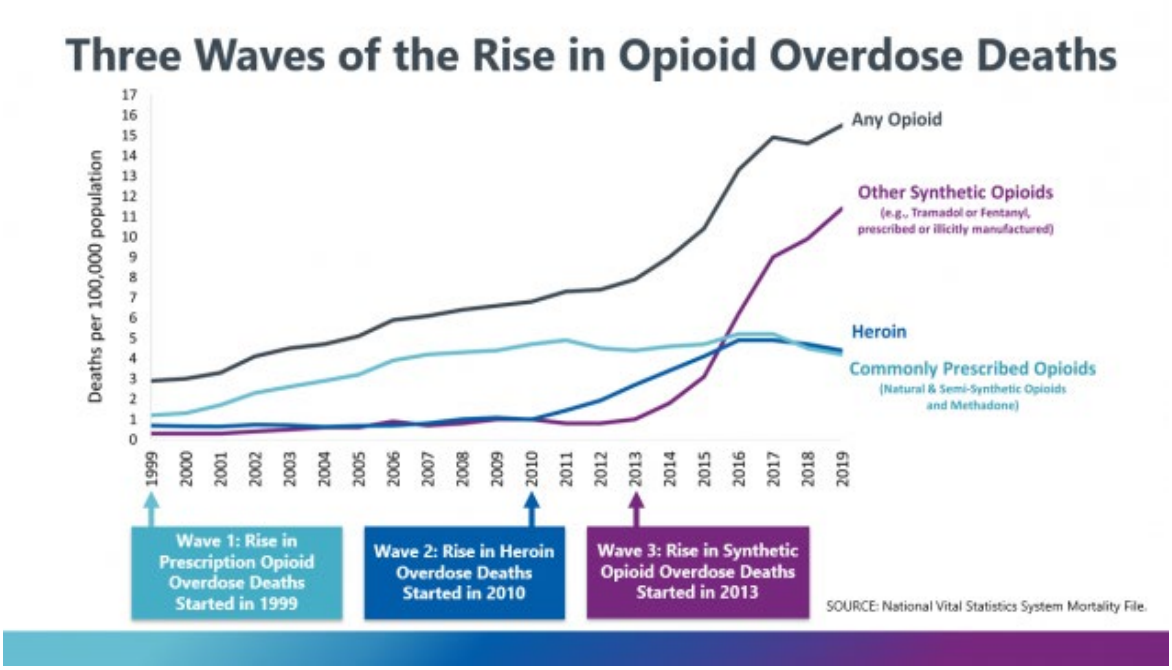
The opioid crisis or opioid epidemic as it is often termed is a blanket statement used to refer to the growing number of drug overdoses and deaths from prescription and illicit opioids. The number of people dying from accidental opioid overdose is substantially higher than overdoses from all other drugs combined because of the way opioids work on the brain. In 2020, over 255 Americans died each day from a drug overdose, mostly caused by opioids, making this epidemic a true public health emergency. However, we did not arrive at these numbers overnight, rather the opioid epidemic has been growing since the 1990s, and many believe it was accelerated by the pandemic.

The CDC and public health experts generally divide the opioid epidemic, which has claimed the lives of nearly a million people since 1999, into 3 "waves." The first wave was driven by the over prescribing of opioid medications after drug companies pushed pills into pharmacies and doctors' offices in the late 1990s. This overprescribing created what was commonly known as "pill mills" where unethical doctors fed the opioid addiction of millions of Americans with tragic results. In the wake of an onslaught of overdose deaths in the 2000s, policymakers adopted a multi-pronged approach to decrease the supply of prescription opioids in the market. These changes in both prescribing and dispensing caused a sharp decline in the number of prescriptions for opioids that were being filled in the US and soon these drugs became much harder to obtain.

In 2010, as prescription opioids were becoming less and less common on the streets, the United States saw an increase in deaths caused by another opioid, heroin. This increase in deaths, known as the second wave of the opioid crisis, marked a move for many from substances obtained from a pharmacy to those obtained on the street. Because of this shift, the second wave quickly gave way to the third wave of the crisis, the rise of synthetic opioids in 2013. This wave is marked by the emergence of synthetic opioids such as fentanyl which is 80-100 times stronger than morphine. For the first time in Florida history, in the 2020 Interim Medical Examiner's report, fentanyl, the most pervasive synthetic opioid driving the "third wave," was the most prevalent drug in people who died of an overdose, passing alcohol and Xanax. Some public

health experts now believe that the United States has passed into a “fourth wave,” driven by polysubstance use and fentanyl-laced drugs such as cocaine, counterfeit benzodiazepines and painkillers, and methamphetamine.

Figure 1:



How common is opioid use in the state of Florida and Jacksonville five years ago and now?

Opioid Use in Florida

The Current State of Fatal Overdoses in Florida

Since the days of the pill mills, Florida has been at the center of the overdose crisis and that trend has continued into 2020 when Florida ranked second in the nation, behind only California, for the number of overdose deaths. The CDC predicts that between February 2021 and February 2022, over 8,200 Floridians died from a drug overdose. This represents a 12% increase in deaths from the previous year and the continuation of a trend that was already in place before the pandemic. While overdoses increased dramatically during the pandemic, they began 2020 at a higher level than 2019, even in the first two and a half months before the onset of the pandemic. Overdoses peaked in May 2020 but remained high throughout the rest of 2020—higher than any previous year, and this trend is expected to continue.

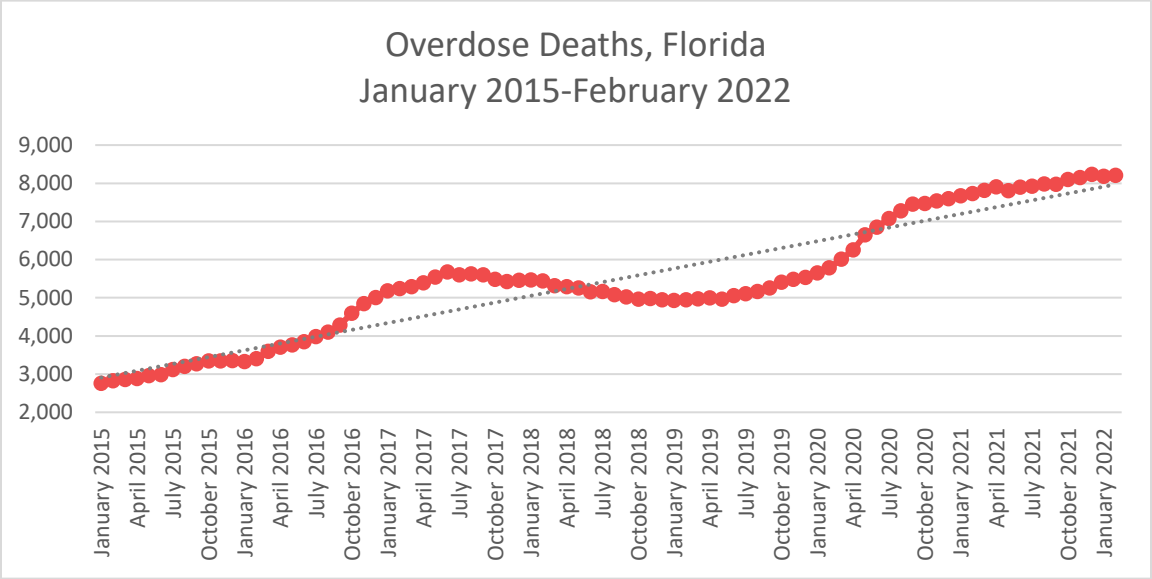
A recently released report from the Florida Department of Law Enforcement Medical Examiner’s Office found that of the 208,708 deaths investigated by the medical examiner’s office in 2020, drugs were present at the time of death in 14,708 cases, this is an increase of 2,134 deaths, or a 17% increase from 2019. The vast majority of these cases had more than one drug present in the body at the time of death, indicating a crisis that is not just growing, but becoming more complex.

A Historical Perspective of Fatal Overdoses in Florida

Over the last five years, overdose deaths in Florida have continued to rise at an unprecedented pace. According to the Center for Disease Control (CDC), between April 2015 and April 2016, there were 3,705 overdose deaths in the state of Florida. In 2021, that number jumped to 8,200, an unbelievable 121% increase in a five-year time period. These trends are similar to those found by the Florida Medical Examiner’s office which shows that deaths caused by overdoses increased 125% between 2015 and 2020. Overdose deaths have been trending upward since 2015 when approximately 291 Floridians

died of a drug overdose each month. The trends show a slight decline in overdose deaths in Florida during 2018, but that trend was already reversing before the pandemic. It is estimated that during 2020, approximately 668 Floridians died each month, or 23 a day from a drug overdose, most likely from an opioid.

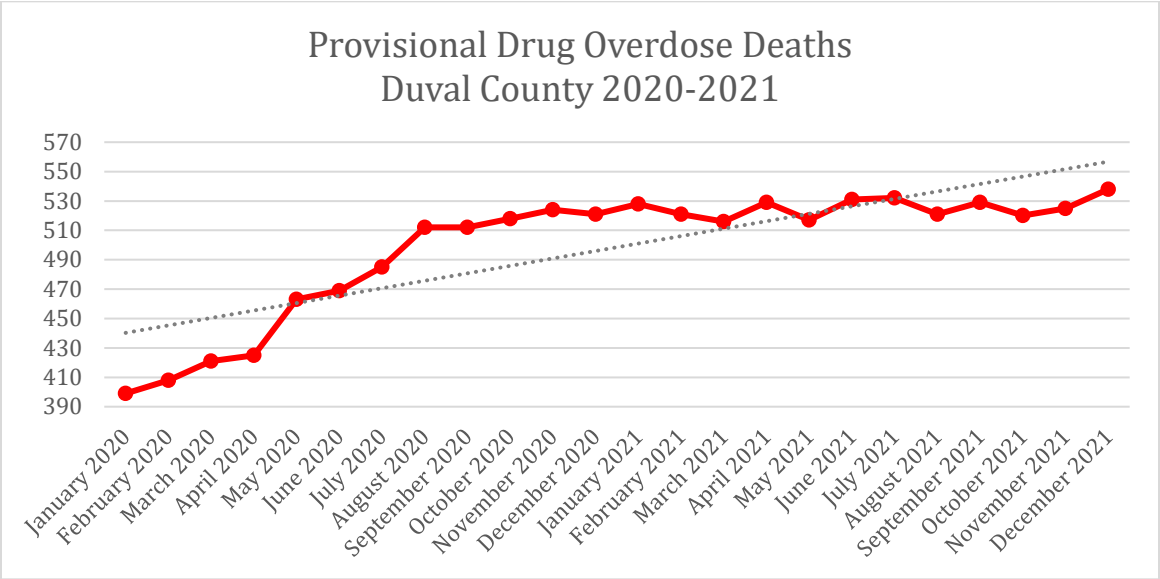
Figure 2:



Fatal Overdoses in Duval County

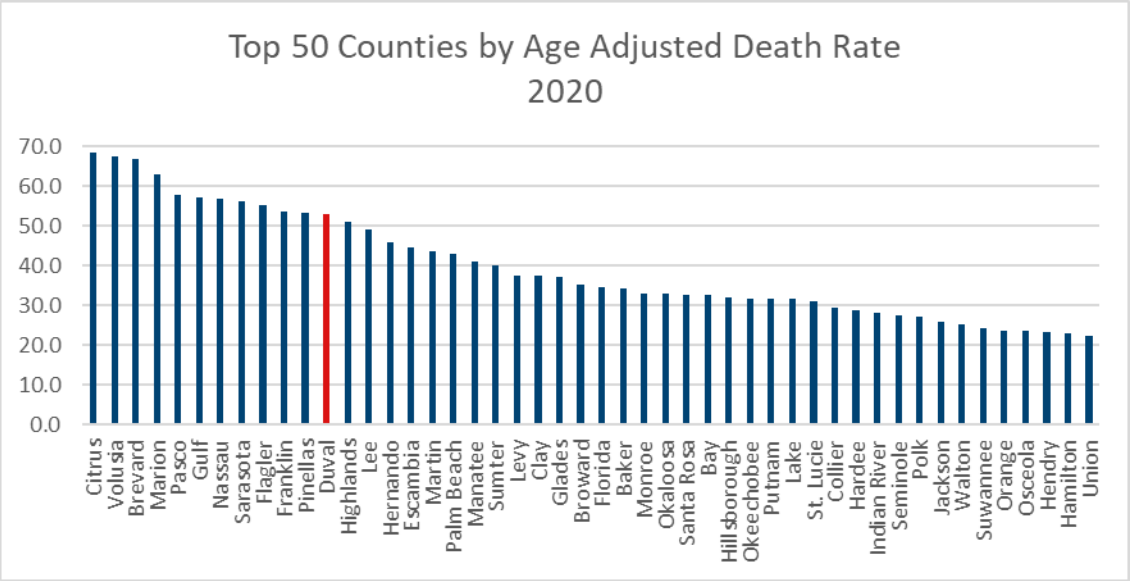
Much like the state of Florida, fatal overdoses from drugs such as fentanyl, cocaine, and heroin continue to plague Jacksonville. According to the CDC's Vital Statistics Rapid Release program, overdoses in Duval County rose 22% from March 2020 to March 2021, in comparison to the 30% rise in the state of Florida during this same period. This increase means that approximately 43 people died of a drug overdose each month between March 2020 and March 2021 in Duval County.

Figure 3:



Duval County ranks 12th in the state of Florida for the Age Adjusted Death Rate, which allows us to compare the death rate in counties regardless of differences in size and demographic makeup.

Figure 4:



Prevalence of Opioid Use Disorder

The Florida Department of Children and Families used a combination of the National Survey on Drug Abuse and Health (NSDAH), and population estimates to determine the prevalence of opioid use disorder in the state of Florida, as well as individual counties. This analysis estimates that over 650,000 Floridians have inappropriately used a prescription pain reliever or had used heroin in the last 12 months, which represents about 4% of the over 18 population of the state of Florida. This same analysis found that there are approximately 30,575 individuals with this condition in Duval County.

Table 2

Prevalence of Opioid Use Disorder in Duval and Florida

County	Non-Medical Pain Reliever Use Disorder	Heroin Use Disorder	Total PR Use Disorder/Heroin
Duval	28,021	2,554	30,575
Florida	611,399	48,032	659,431

Is the face of the overdose crisis changing?

Fatal Overdoses in Florida

In the first six months of 2015 (used for comparative purposes), 1,647 Floridians died of an overdose. This loss of life was primarily in the white community (89%), among males (65%), between the ages of 25 and 44 (43%). These fatal overdoses represent a similar pattern that was seen across the US during the first three waves of the opioid epidemic. However, in recent years, as we potentially enter the fourth wave of the epidemic, marked by fentanyl analogs, we are seeing a shift in the demographics of those that are being impacted by this crisis.

In the first 6 months of 2020, there were 3,706 overdose deaths in the state of Florida and while many of the demographic trends hold true, there is a shift in who is dying from drug overdoses. While the majority of overdose deaths in the state of Florida continue to be among the white population (85%), there is a disproportionate increase among the Black population (233%, 125 to 416) compared to the total increase in Florida (125%, 1647 to 3706) as well as the population change in this demographic.

There has also been a subtle shift in the gender of overdose victims in the state of Florida in the last five years. In 2015, 65% of those dying from an overdose were men, and 36% were women. In 2020, we see that demographic trend shift slightly to a more male-dominated issue with 71% of the decedents being men. Again, if you look at the percent change among men during this time frame (145% 1076 to 2637), it slightly outpaces the total increase in overdoses in Florida.

The age of overdose victims in Florida has declined slightly since 2015, with the average age of a fatal overdose falling from 44 to 43. However, this fall in the average age is likely attributable to an increase in children between the ages of 0 and 4 that died of a drug overdose during the first six months of 2020. When looking at age groups, those 25-44 made up 43% of the overdose deaths in 2015, and 51% of the deaths in 2020, but only made up 25% of the population in both 2010 and 2020.

Fatal Overdoses in Jacksonville

Duval County has not been spared the proliferation of fentanyl. Fentanyl is now the leading cause of overdoses in Duval as of 2020[9]. What began 2015 as a minor component of the overdose crisis is now by far the driver of the vast majority of opioid and all deaths in Duval County. At one point, it was thought progress was being made in reversing the upward trend in fentanyl deaths, but data shows fentanyl deaths have dramatically increased. In fact, heroin overdoses are less than half of what they were in 2016, while fentanyl deaths continue to rise in shocking fashion, over 1000% since 2015[9]. The Black share of overdoses is also up from 8% to 22% in Duval County in 2021[9]. The share of deaths does not tell the whole story though. Since 2015, Black overdoses are up 793%, from 15 in 2015 to 134 in 2021[9].

The gender of overdose victims has shifted more in Duval County than the rest of the state. In 2015, about 65% of overdose victims in Duval were men[9] and in 2021 that number shifted slightly to 67%[9]. The average age of the Duval County overdose victim has remained relatively stable from 42 years old in 2015 to 44.54 in 2021[9]. This is not a significant change but is a subtle shift, nonetheless. Overall, the change in the face of someone who has died of a drug overdose in Duval County in 2021 compared to 2015 is they are more likely to be Black, slightly older, and much more likely to be a fentanyl victim.

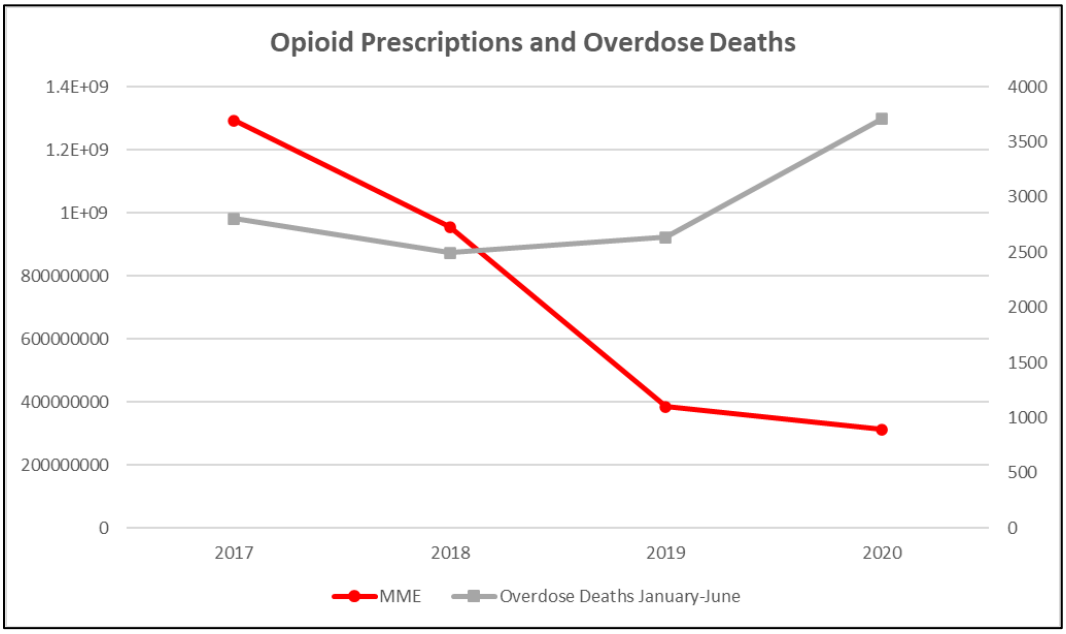
Which drugs are most impacting the state of Florida and our community?

Prescribing Trends in Florida

Florida was one of the last states to employ a Prescription Drug Monitoring Program (PDMP), which tracks prescriptions of controlled substances and has been effective in stopping “pill mills” or “doctor shopping”. Since its inception in 2009, the PDMP has significantly reduced the number of prescription opioids that reach the street and decreased the number of prescription opioid deaths.

Prescribing for opioids in the state of Florida is at an all-time low, with the morphine milligram equivalents (a standard measure for the quantity and strength of prescribed opioids) down almost 70% since 2017[11]. Simultaneously, the overdose death rate for the two most commonly prescribed opioids, hydrocodone, and oxycodone, have decreased by 2.9 and 5.7 percent respectively[11]. However, the overdose death rate in the state of Florida continues to climb.

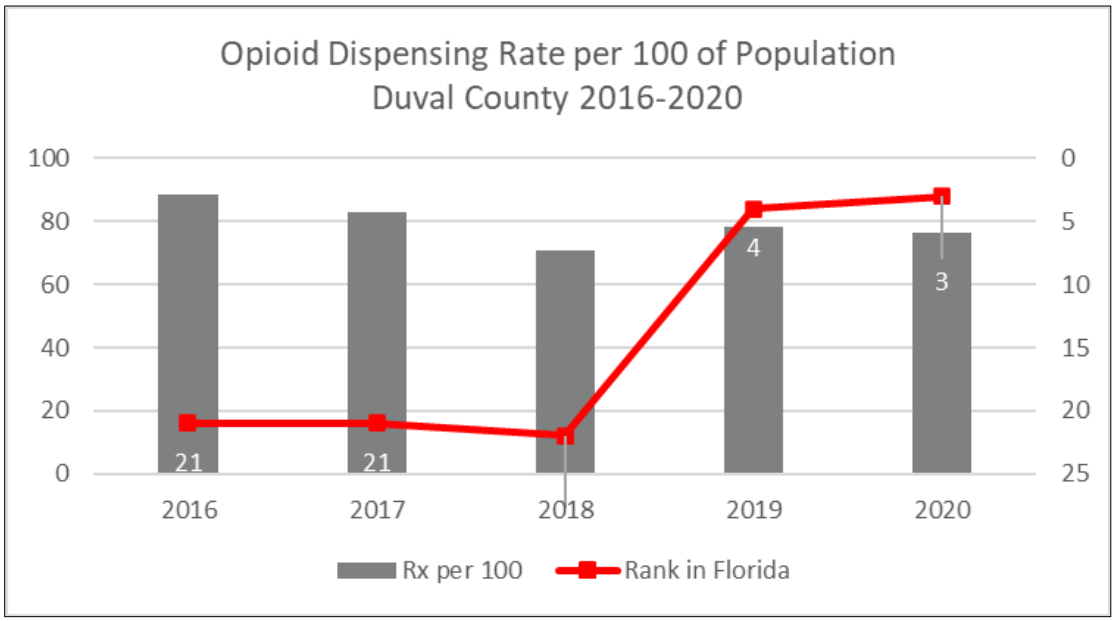
Figure 5:



Prescribing Trends in Duval County

Overall prescribing of opioids is down in Duval County since 2016 from 88.6 per 100 individuals in a population, to 76.5 per 100 individuals in 2020. However, despite this decline in prescribing trends, Duval County has moved from 21st in the number of prescriptions of opioids written to 3rd in the state. This trend indicates that while great progress has been made in reducing the number of opioid prescriptions, additional focus to bring these numbers in line with the state of Florida may be warranted. It is important to note this measure simply provides the dispensing rate, and not the morphine milligram equivalent (MMEs), which paints a more comprehensive picture of prescribing trends.

Figure 6:

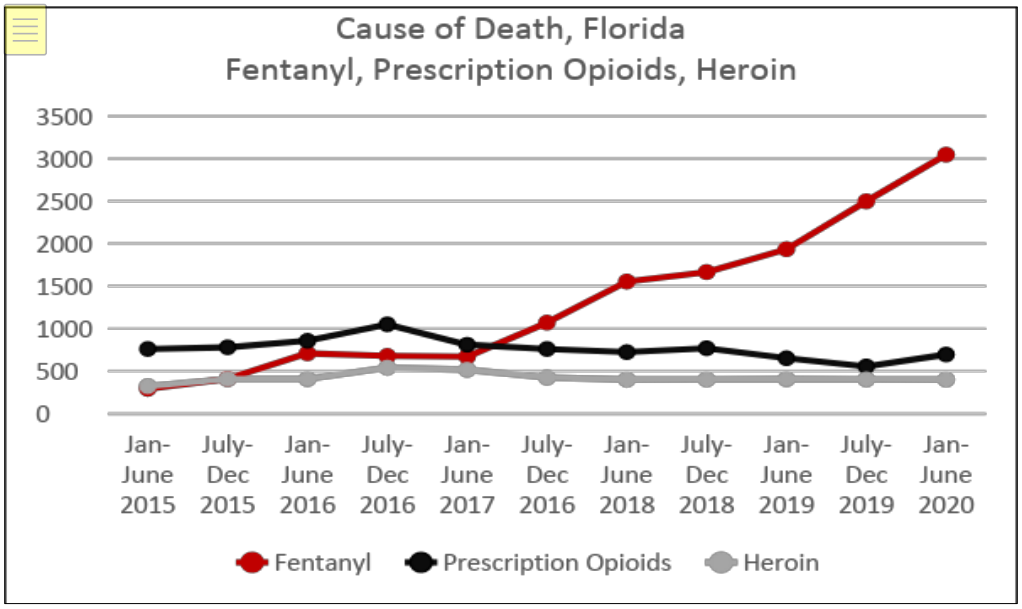


What drugs are killing people in Florida?

Across the board, meaning not only in the state of Florida but throughout the country, the number of opioids being prescribed is down, as are the amount of deaths attributed to prescription opioids. In early 2015, prescription opioids were cited as the cause of death in 33% of the individuals that died of an overdose in the state of Florida. In 2020, that number

dropped to just 10% of the individuals. Heroin has a similar trend, dropping from 14% of deaths to just 6%. So, what is killing Floridians? The emergence of illicit fentanyl marked a dramatic shift in the overdose crisis in Florida. Each year since 2015, the number of deaths caused by fentanyl has increased from 12% in 2015 to 47% in 2020, marking an overall increase of 937% during this time.

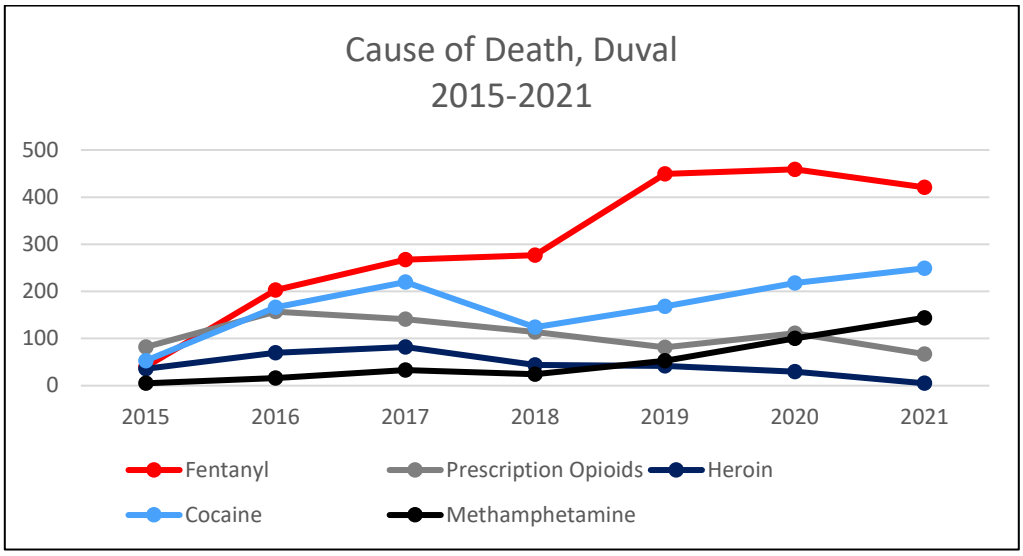
Figure 7:



What drugs are killing people in Jacksonville?

The data clearly shows that fentanyl is the number 1 killer when it comes to drug overdoses in Jacksonville. The change from 2015-2021 is so large, it's hard to imagine. Even in polydrug substances, fentanyl is attributed as the most frequent cause of death. The pervasiveness of fentanyl in the drug supply makes people who believe they are consuming other drugs, such as powder cocaine, unsuspecting victims of fentanyl. Sometimes a dealer will add fentanyl to their drugs to have a "unique" product, one that produces a different high than cocaine or methamphetamine alone. In these cases, users may not know there is fentanyl in their supply, even if not in a lethal amount. Although the number of non-fatal overdoses cannot be accurately measured in their entirety, there are many more non-fatal overdoses than fatal overdoses. When a chart shows fentanyl deaths up 969%, the actual number of non-fatal overdoses is likely up even more.

Figure 8:



What is Fentanyl?

Illicit Fentanyl

Strength

The average amount of naloxone needed to reverse a fentanyl overdose is 3.6mg, meaning that 2 doses of the commonly available naloxone delivery method Narcan are often needed. Most deaths due to fentanyl are the result of powerful illicitly made fentanyl, often of unknown strength. Generally, the strength of fentanyl is 80-100x that of morphine and about 50x that of heroin. 2-3mg of fentanyl is sufficient to kill the average adult male, while the equivalent dose of heroin is 30mg. The weight of a lethal dose of fentanyl is equivalent to 3 grains of sugar.

History

Prior to the widespread proliferation of illegally manufactured fentanyl around 2016, fentanyl primarily came from a singular laboratory in Mexico. It was shut down in Toluca, Mexico and prevented an earlier surge in illicit fentanyl deaths. Authorities in the mid-2000s realized that fentanyl, due to its potency, was easily smuggled and created compared to heroin because of the small space required for mass production and the low weight of high doses.

It's also important to note that fentanyl is a purely synthetic opioid. It is completely manmade and does not require any plant cultivation, making the space required for mass-producing the drug much smaller than heroin. Clandestine "laboratories" are capable of mass-producing kilograms of potent, deadly powder that can be used to cut other substances. The ingredients for producing this fentanyl are dropped off boats from China and picked up by cartels that manufacture and smuggle the drug. Some ingredients come from India and other south Asian countries, but the main route is through Mexico via China.

The word laboratory does not truly represent how crude the production of fentanyl is. While the production of methamphetamine is dangerous and requires knowledge of chemistry, fentanyl is easily made by anyone. Fentanyl can be produced in impure barrels with these ingredients received in the ocean off the coast of Mexico and brought to the cooking sites. Due to the small amount needed to make a large profit and the fact that cartels ship fentanyl in many small shipments into the United States, stopping the flow of fentanyl is nearly impossible. Even a large seizure of fentanyl does not concern cartels because they spread out their shipments into many smaller sizes.

Usage

The strength of fentanyl and its analogues, along with its ability to be easily smuggled and produced is not lost on international cartels or local dealers. A large portion of street drugs are now cut with fentanyl. The result is heroin contaminated with fentanyl sold by dealers to increase profit by reducing volume and increasing and shortening the euphoric effects, leading to more purchases, a stronger high and increased danger. Dealers often do not precisely measure the amount of fentanyl in the heroin they sell to people who think they are simply buying heroin. When this happens, a heroin user may nearly instantly die from the fentanyl present in the heroin because they believe they are using uncut heroin and use a higher than anticipated dose of synthetic opioids. Fentanyl and heroin look identical and therefore heroin is very easy to cut with fentanyl.

According to the Florida Medical Examiner's reports published over the past 3 years, there have been almost no pure heroin overdoses, only heroin overdoses in combination with other drugs, most often fentanyl and cocaine. The Medical Examiner's reports also show that there are mono substance deaths involving fentanyl, showing the increased potency of fentanyl compared to heroin and that people are moving to injecting pure fentanyl and knowingly taking the risk of the unknown strength of fentanyl for the greater euphoric effects and high tolerance to heroin for chronic users.

While diverted and inadvertent deaths due to prescription fentanyl occurs, the majority of recent cases of fentanyl related deaths involve illegally made fentanyl. Even deaths contributed to prescription fentanyl often involve organized crime and amateur but skilled chemists extracting fentanyl from transdermal patches. Organized crime organizations are more than capable od "employing" amateur chemists who can create dangerous concoctions using both trafficked and diverted fentanyl. Often, local and regional drug trafficking organizations recruit local dealers to push illicit substances, including other drugs cut with fentanyl or even carfentanil, which is so powerful that it can tranquilize an elephant with one dart.

These local dealers use fentanyl in heroin, cocaine, methamphetamine, and counterfeit Adderall, Xanax, OxyContin, and hydrocodone pills, as well as benzodiazepines. Fake fentanyl-laced pills disguised as prescription medications are what is currently driving the overdose crisis. The Drug Enforcement Administration (DEA) lab testing reveals that 4 out of every 10 pills with fentanyl contain a potentially lethal dose. In 2021, the DEA seized more than 20 million fake pills laced with fentanyl, which is more than the previous two years combined. Fentanyl and its analogues are among the cheapest drugs available to dealers, especially compared to cocaine and heroin, making them attractive alternatives to pure substances.

Illicitly manufactured fentanyl (also known as IMF) is any fentanyl that is created outside of a controlled laboratory, such as a pharmaceutical setting. When most experts refer to "fentanyl," they almost exclusively refer to IMF, not diverted or prescription fentanyl. The vast majority of fentanyl overdoses are due to smuggled fentanyl produced outside of the United States.

Drug-Related Emergency Department (ED) Visits, January 2019 – June 2022

Description: Data on emergency department visits for suspected overdose comes from the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE-FL) uses near real-time pre-diagnostic data and statistical tools to detect and characterize unusual activity for further public health investigation. ESSENCE-FL receives data from 99% of Florida's EDs, data is also available for stand-alone EDs and urgent care centers.

Case Definition: ED visits can be queried using drug overdose chief complaint and discharge diagnosis (CCDD) categories through the query portal in ESSENCE-FL. Currently, there are four CCDD categories used to identify drug-related overdose ED visits—All Drug, Opioid, Heroin, and Stimulants. The queries search the CCDD field for ICD-10 and ICD-9 codes indicating overdose or for a combination of overdose and drug terms.

Advantages and Disadvantages: The data are rapidly available, and for some EDs, data are available in real time. Data garnered from chief complaints may not be as accurate as discharge diagnosis data and all data are provisional or subject to change. ESSENCE-FL ED data provides the timeliest data on drug overdose trends and can help identify drug overdose clusters. The COVID-19 pandemic affected health care seeking behavior which resulted in overall total ED volumes dropping significantly in March of 2020 and remaining below normal levels. Improvements in data quality over time and differences in data collection between facilities may influence the number of overdose visits captured. There are also limitations due to lack of standardized protocol within the hospital ED setting for toxicology testing, which is the gold standard for

determining the types of drugs causing an overdose. Although this information is often captured using self-report information provided by the patient, this method is not always accurate as it relies on patients knowing which substance(s) they have taken. This information is also provided by the EMS pre-hospital transport team, as well as from ED physicians that utilize clinical/treatment outcomes to determine the type of drug causing the overdose, such as whether the patients' symptoms improve after opioid reversal medications.

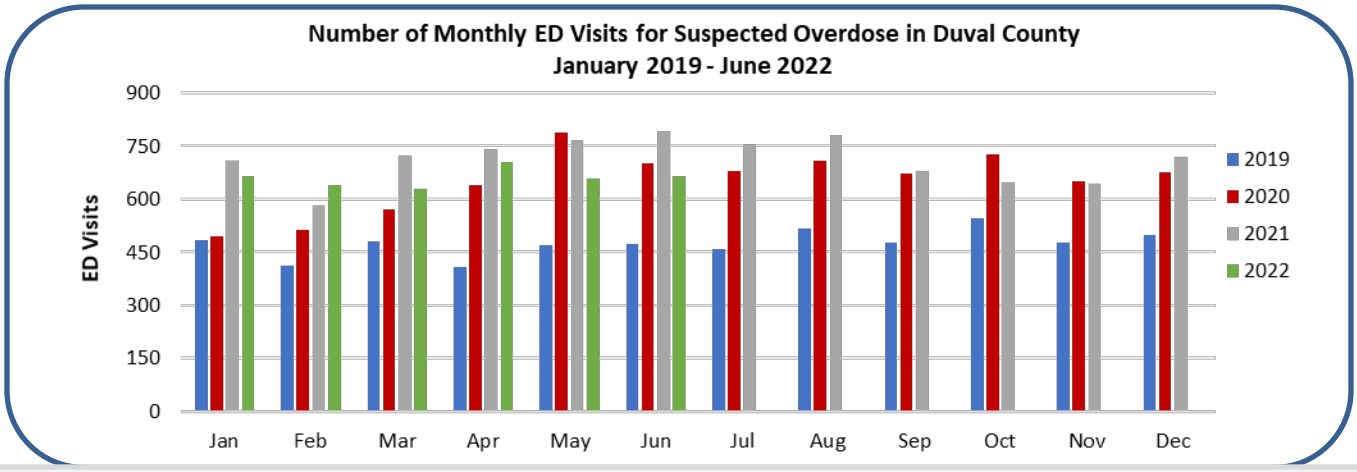


Figure 9. In 2019, Duval County had a total of 8,529 drug-related ED visits – inclusive of prescription and illicit benzodiazepines, opioids, and stimulants. There were 2,829 more ED visits in 2021 compared to 2019, equating to a 50% increase. Year 2020 saw more monthly ED visits for suspected overdose when compared to 2019. Similarly, except for the months of May, October, and November, all other months in 2021 saw monthly ED visits increase. So far in 2022, except for January, all other months have seen a slight decrease in drug-related ED visits.

Analysis: The following figures show the full year of data for 2019 – 2021 and partial year data for 2022. Data shown as percent change is used to measure disparity within a specific time-period or population relative to another time-period or population. Percentage change is expressed as an increase or decrease. A 100% increase means that ED visits doubled, a 200% increase indicates visits tripled, and a 300% means that visits quadrupled. Please keep in mind that the percentage change may appear exaggerated due to low counts. In addition, groups not reflected in the charts either had no reports recorded for that group or the data has been suppressed due to low counts (<10) to protect the privacy of those represented. Instead, trends are described throughout the report for data not presented in data visualizations.

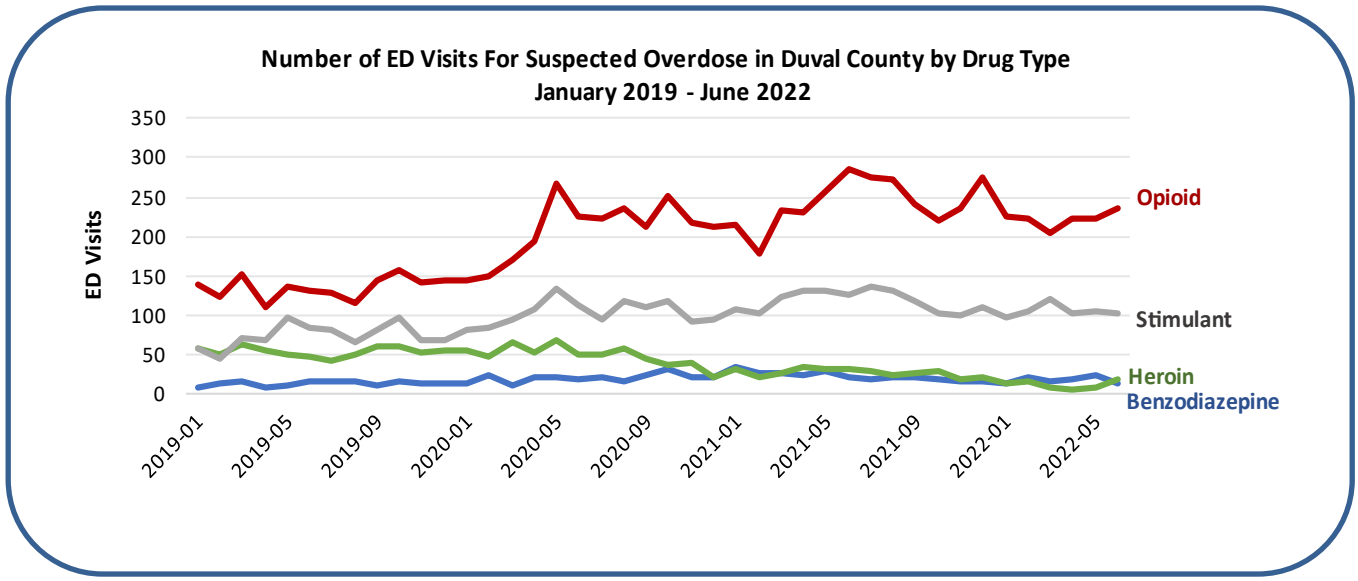
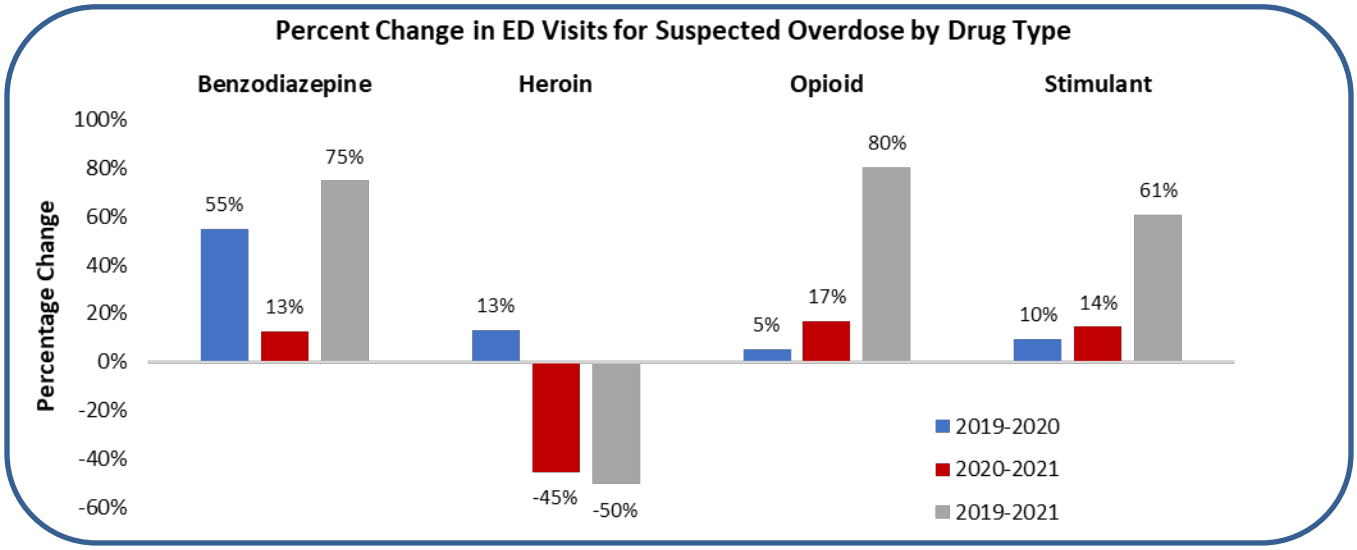


Figure 10. This figure compares suspected overdose ED visits by type of drug. Opioids account for most suspected overdose ED visits, and this trend continues to rise. Though included in the opioid category, heroin is also shown separately to determine trends more accurately. Since 2019 there has been an overall decrease in the number of heroin ED visits. There has been an increase in the number of stimulant ED visits since 2019, with the number doubling from 2019 to 2021. A spike in stimulant visits occurred in March 2022, but overall, the number of visits has continued to decrease since October 2021. The number of benzodiazepine ED visits have also decreased in 2022. That said, chief complaint and discharge diagnosis is often based on anecdotal patient reports rather than confirmation through toxicology screening, and toxicology screenings do not always test for fentanyl or other emerging substances. These limitations may impact presented trends.



Rate of Emergency Department (ED) Visits per 100,000 Residents, January 2022 – June 2022

Figure 12. Rate of Benzodiazepine Overdose January – June 2022

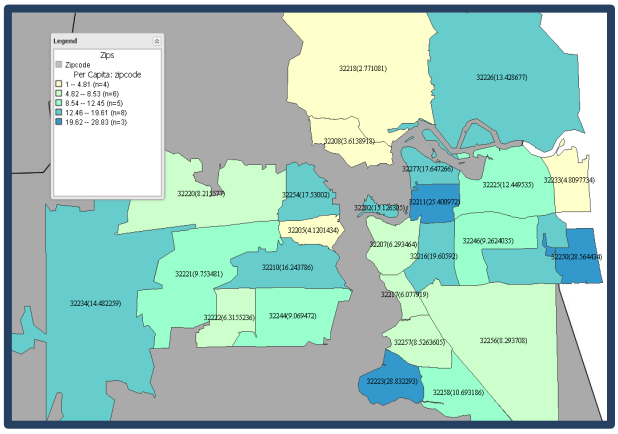


Figure 13. Rate of Opioid Overdose January – June 2022

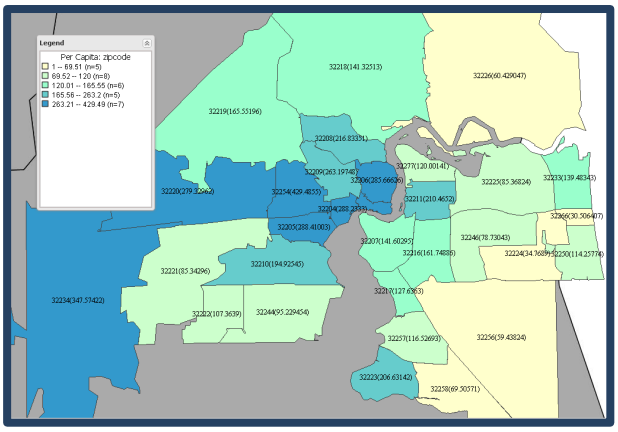
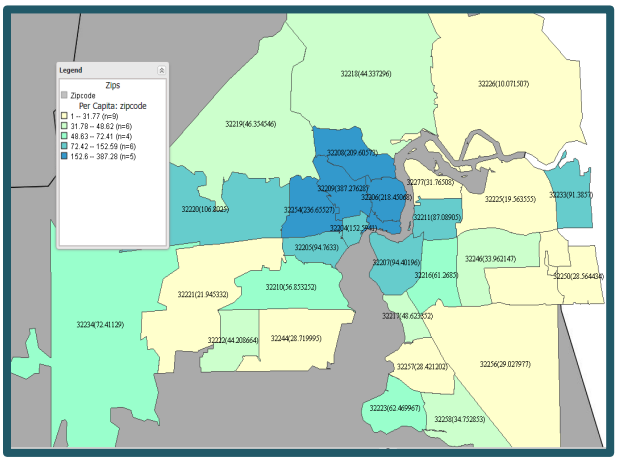


Figure 14. Rate of Stimulant Overdose January – June 2022



Figures 12-14. The maps of Duval County show the rate of drug-related ED visits for suspected overdoses related to benzodiazepines, opioids, and stimulants per 100,000 residents. This informaiton can help tailor education and prevention strategies to best fit the needs of geographical regions in Duval County. Surveillance data collected through OD2A suggests that Duval County is currently facing a poly-drug crisis, where illicit substances and street copies of pills are mixed with deadly amounts of a variety of substances.

The OD2A program in Duval County partners with Premier Biotech Labs (PBL) to conduct overdose surveillance of the illicit drug supply. PBL performs toxicology screenings on urine samples collected in EDs from consenting overdose survivors participating in the Project Save Lives (PSL) program. The goal of PSL is to develop a seamless, collaborative stabilization and treatment solution to reduce opioid-related overdoses, recidivism, and mortality. A critical component of PSL is the use of Certified Recovery Peer Specialists (CRPS) who engage overdose survivors while they are in the ED and link them to treatment and recovery support services. Between November 1, 2020 and August 31, 2021, there were a total of 240 samples tested. In this time frame, 37% of samples contained synthetic (illicitly manufactured) fentanyl with two or more additional substances and 25% of samples contained synthetic fentanyl with three or more additional substances. More recently, between September 1, 2021 and June 30, 2022, there were a total of 109 samples tested. Of the 109 samples tested, 58% of samples tested positive for alcohol, 46% tested positive for cocaine, 36% of samples tested positive for THC (marijuana), 32% of samples contained amphetamine, 30% of samples contained fentanyl, 27% of samples contained benzodiazepines, 15% contained gabapentin, and 13% of samples were positive for opiates. Of the samples that contained fentanyl (32) it was most common (29%) to see samples that were positive for four drug classes, meaning that fentanyl was combined with three other substances. In fact, only 6% of samples contained fentanyl alone.

“The use of more than one drug, also known as polysubstance use, occurs when two or more substances are taken together or within a short time period, either intentionally or unintentionally (CDC). CDC warns, whether intentional or not, mixing drugs is never safe because the effects from combining drugs are often stronger, more unpredictable, and even deadly.”

Demographics of Drug-Related ED Visits for Suspected Overdose (All Drug Category)

Presented next is a summary of the demographics of people who had a suspected overdose ED visit from 2019-2021. First is a summary of suspected overdose visits resulting from all-drugs by specific demographic characteristics. The all-drug category is inclusive of prescription and illicit benzodiazepines, opioids, and stimulants. Following this section, a more specific overview of demographics by drug types are provided.

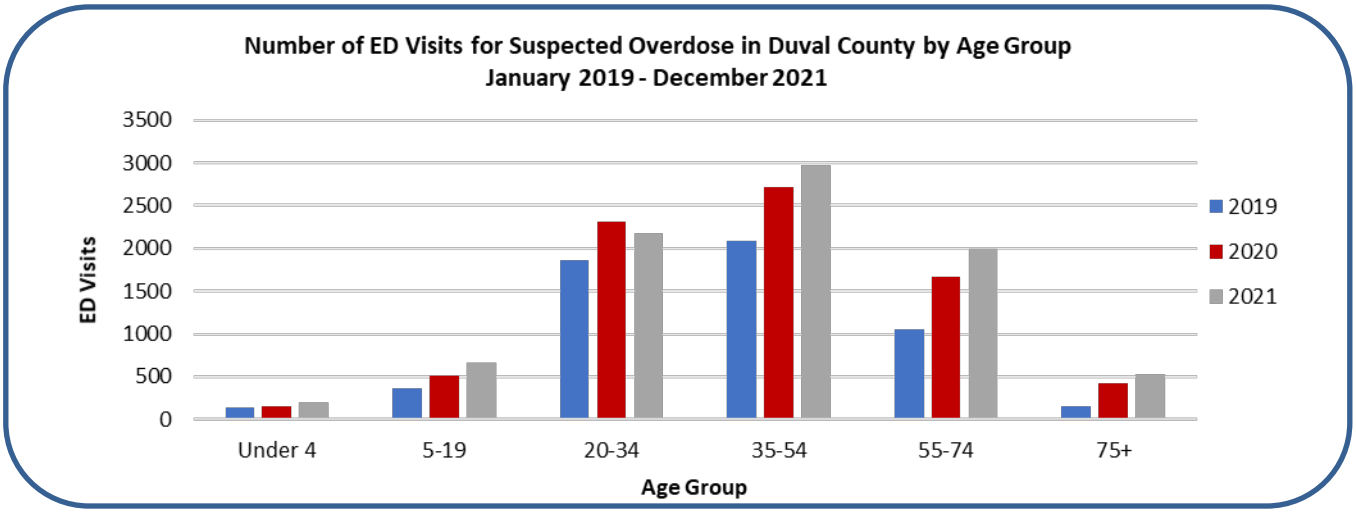


Figure 15. This figure examines all-drug related ED visits data from 2019-2021 by age group. Those who are between the ages of 35 and 54 consistently had the highest number of all-drug overdose related ED visits each year but have the second lowest percent increase (42%) compared to other age groups. When comparing data from January through December of 2021 to the same period in 2019, all-drug overdose related ED visits have more than tripled (273% increase) for the 75+ age group. Visits have nearly doubled for people aged 55-74 (89% increase) and 5-19 (84% increase). While the 20-34 age group has only seen a 17% increase in 2021 compared to 2019, this group should not be excluded from prevention programming as this age group has the second highest number of all-drug overdose related ED visits.

Though not included in this report, when examining ED visits related to mental health and suicide, the 5-19 and 20-34 age groups both had a high number of visits and high percent increases in 2021. These correlations underscore the importance of addressing co-occurring mental health challenges alongside treatment for substance use disorder.

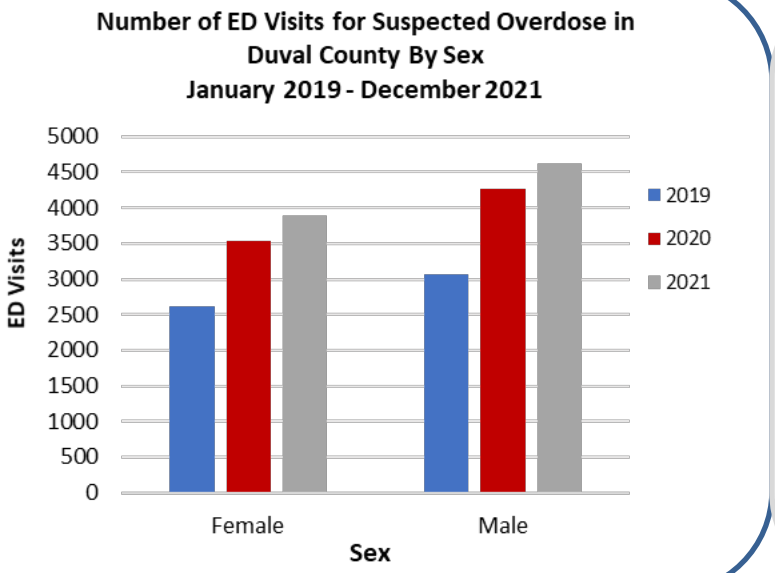


Figure 16. Compared to females, males experience a slightly higher number and percent increase of all-drug-related ED visits. Nonetheless, it is important to tailor services to fit the needs of specific populations. For example, applying a health equity approach by using gender or trauma informed care principles and identifying culturally appropriate mental illness and substance use prevention and treatment practices are essential to implementing tailored overdose prevention strategies.

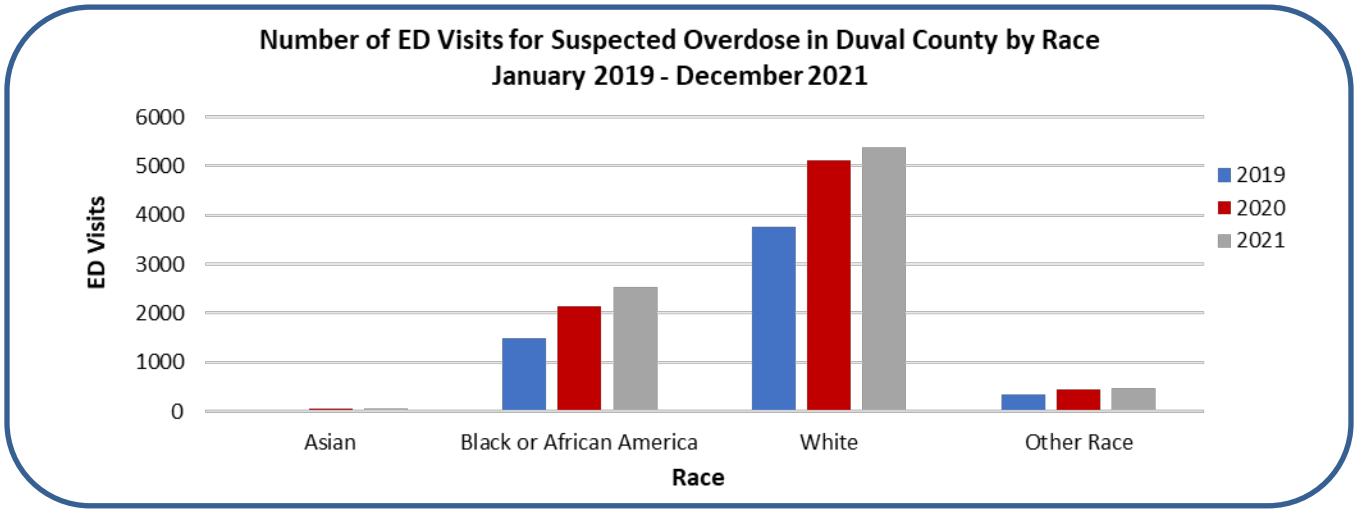


Figure 17. This figure shows suspected overdose ED visits by various racial groups. The "Other Race" category includes ED visits among people who identify as American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, Multiracial, and Other. Those identifying as White accounted for most ED visits, with Black or African Americans having the second highest number of visits in Duval County. However, when examining the percent change in ED visits over time, minority populations in Duval County have experienced the largest increases in ED visits for suspected overdoses.

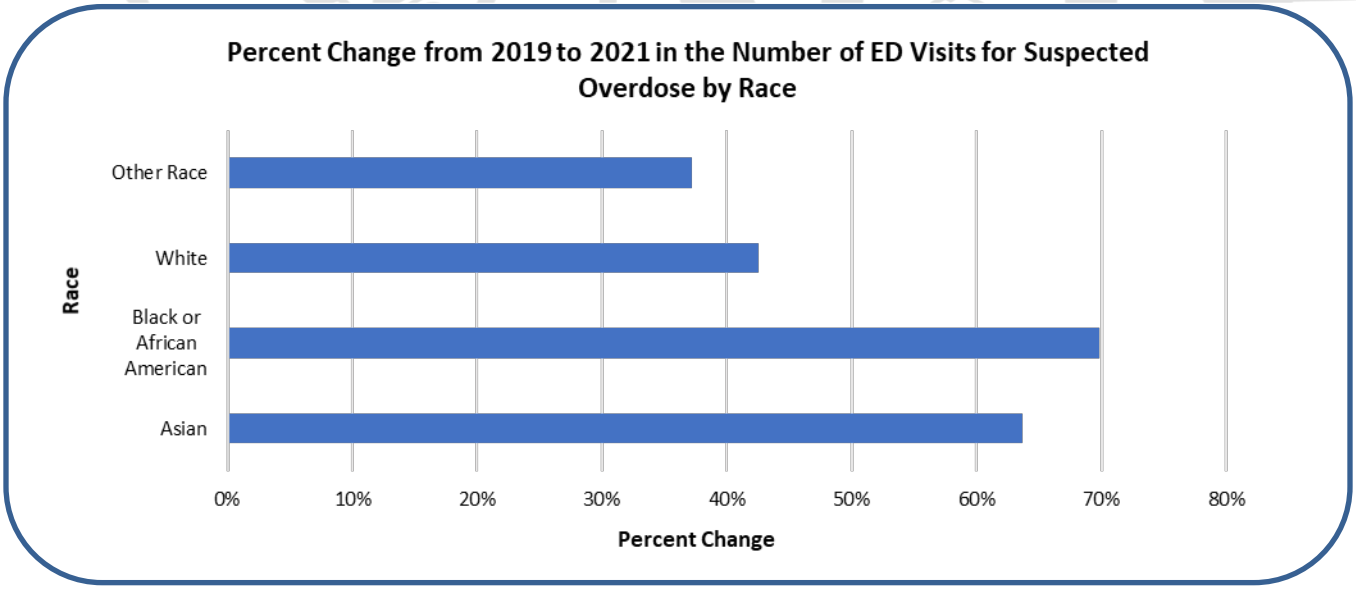


Figure 18. This figure presents data from **Figure 17.** in a different way to help visualize it. When comparing suspected overdose ED visits in 2019 to 2021, White individuals experienced the lowest percent increase (42%) compared to other demographic populations in Duval County. The Other Race group is an exception as it is a combination of several races. Those who identify as Black or African American experienced a 70% increase in ED visits since 2019. This means that Black or African Americans are experiencing a disproportionate increase in the number of overdose related ED visits compared to Whites. ED visits more than doubled (150% increase) for those who identify as American Indian or Alaska Native, but there are less than 20 visits for the entire three-year period.

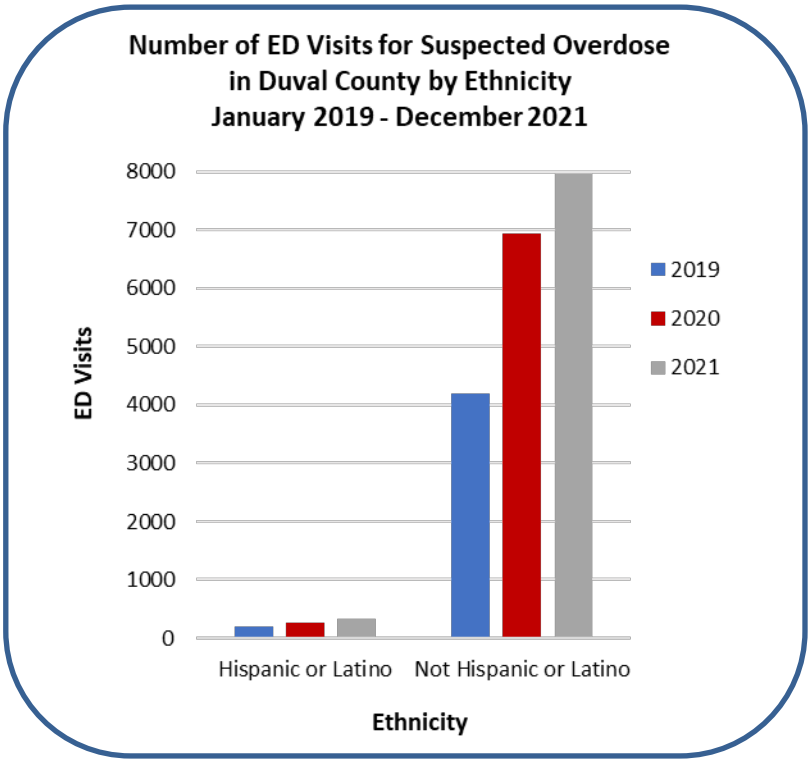


Figure 19. The figure above examines the number of ED visits by ethnicity. The majority of ED visits for suspected overdose from 2019-2021 were among those who identified as not Hispanic or Latino. However, both groups have seen increases over the last few years.

Demographics of suspected overdose ED visits were also examined as a function of drug type. Identifying populations most impacted by specific drug overdoses can help programs tailor educational and outreach materials, treatment programs, and overall develop more culturally inclusive and relevant treatment and recovery support programs.

Demographics of ED Visits for Suspected Benzodiazepine Overdose

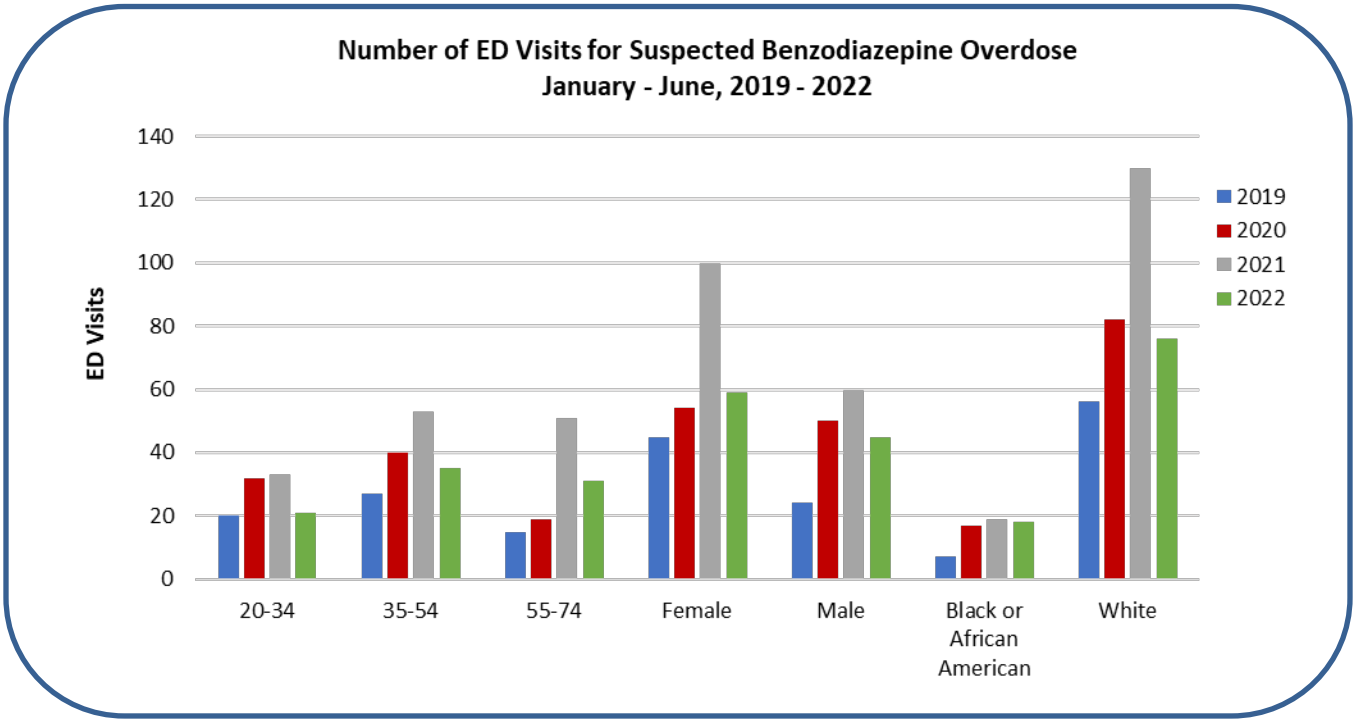


Figure 20. The figure above compares ED visits for suspected benzodiazepine overdose from January to June over four years (2019 through 2022). The number of benzodiazepine ED visits for all groups continued to increase through 2021. The age 55 to 74 age group (168%) had the highest percent increase in 2021 when compared to the year prior. So far in 2022, all groups have seen a decrease in the number of benzodiazepine-related ED visits; however, those identifying as Black or African American (-5%) and those who are 75 years or older (-17%) have seen the smallest percentage decreases when compared to 2021.

When comparing the first six months of 2019 to the same time in 2022, benzodiazepine-related ED visits more than doubled for Black or African Americans (157%). The 55 to 74 age group (107%) had the second highest increase, followed by males (88%).

Demographic groups not reflected in the chart above saw less than 10 ED visits over the years and their data has been suppressed.

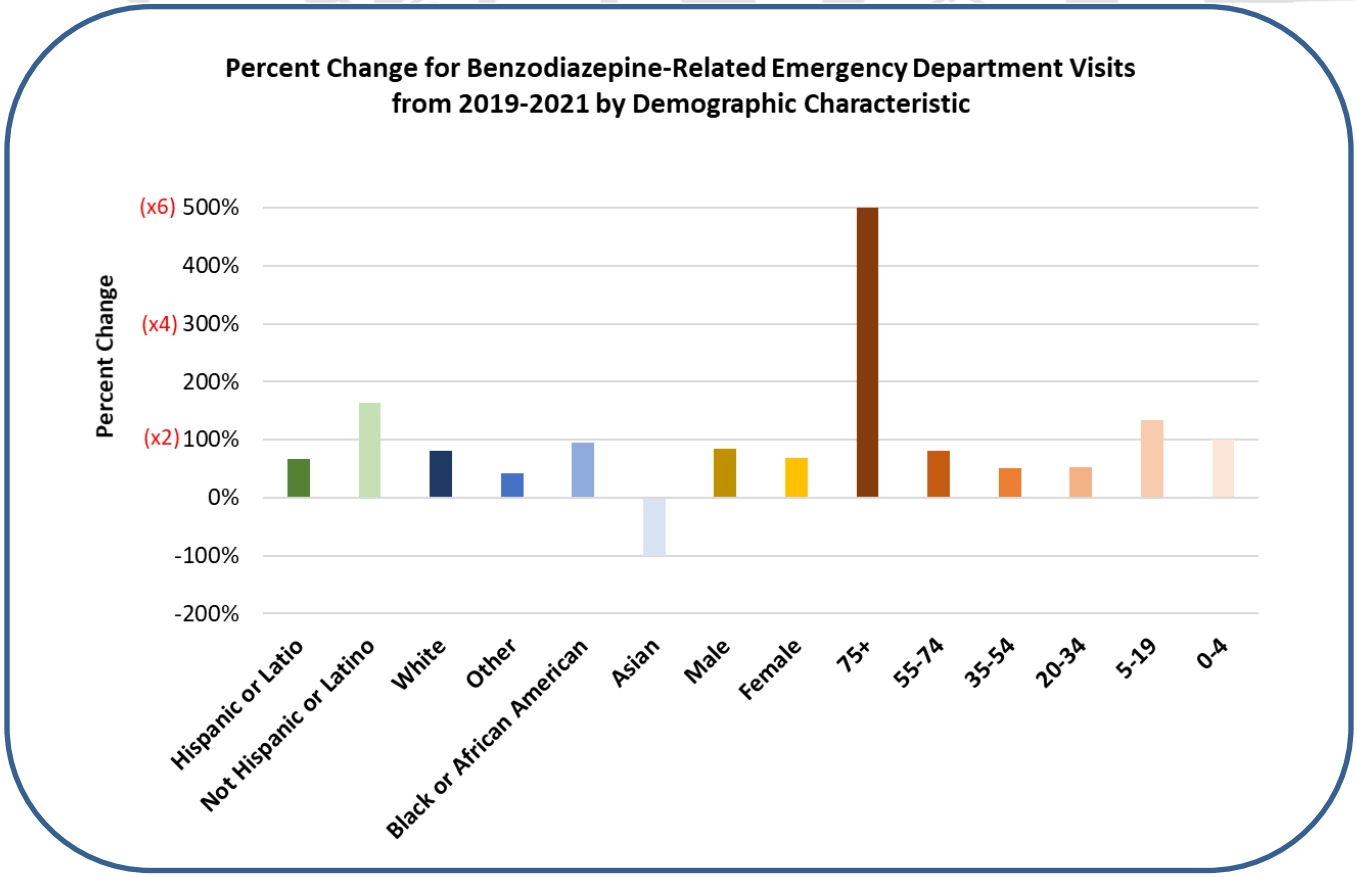


Figure 21. The figure above compares the percentage change in Duval County from 2019 compared to 2021 in ED visits for benzodiazepine-related ED visits among various population groups based on ethnicity, race, sex, and age group. The y-axis shows percentage change, with a 100% increase meaning ED visits for suspected benzodiazepine overdose have doubled, and a 300% increase meaning that visits quadrupled.

There were fewer benzodiazepine-related ED visits for those identifying as Asian overall and were the only demographic group to experience a decrease in ED visits in 2021. It is important to consider other factors which may have influenced the number of ED visits for the Asian demographic group rather than assuming this group is no longer at risk for overdose. Black or African American (94%) populations in Duval County experienced a higher percentage increase compared to White (80%) populations. Some groups, such as individuals who are aged 75 and older, saw a disproportionate increase in suspected benzodiazepine overdose. Specifically, ED visits for the 75 and older age group increased from 4 in 2019 to 24 in 2021. Likewise, ED visits among those 5 to 19 more than doubled.

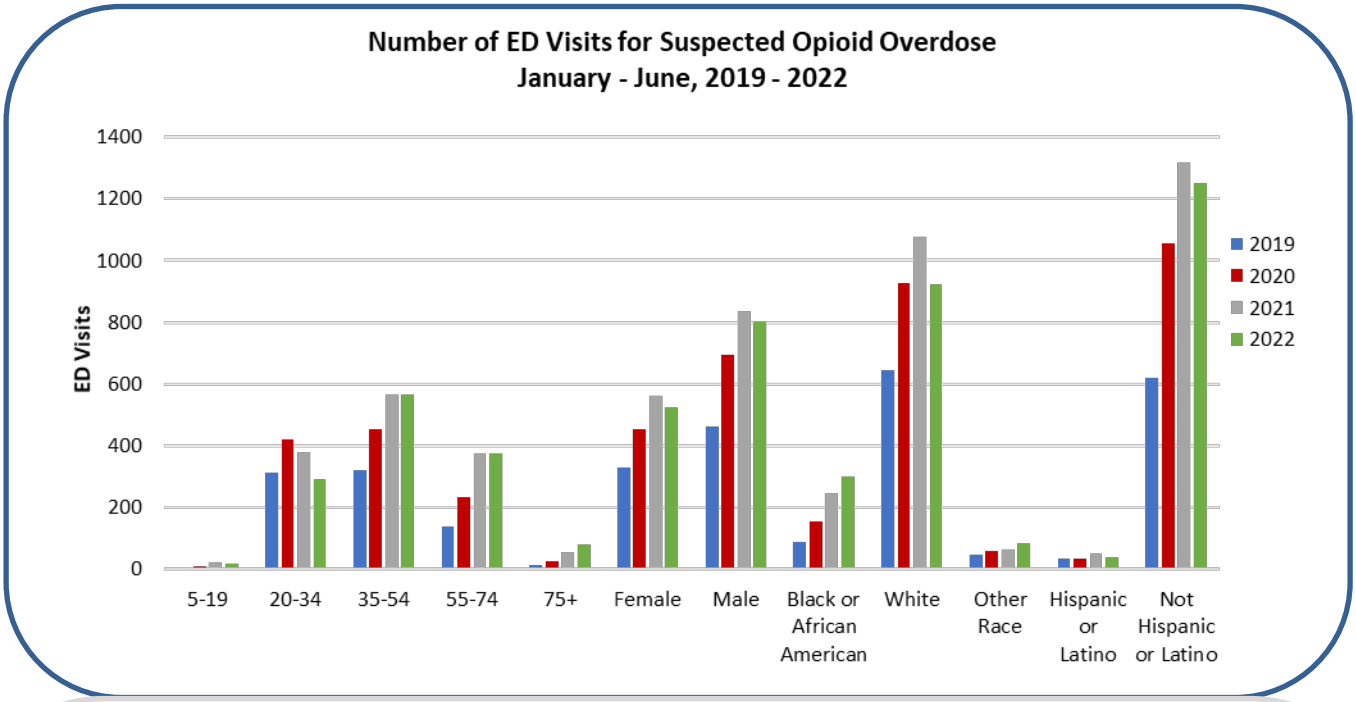


Figure 22. The figure above compares ED visits for suspected opioid overdose from January to June over four years (2019 through 2022).

Across the board, the number of opioid-related ED visits increased for all demographic groups, with the exception of Hispanics/Latinos who had a 3% decrease in 2020 and the 20 to 34 age group who saw a 10% decrease in 2021 compared to the year prior. The 75 years and older age group (112%) saw the highest percent increase in 2021 (Jan. – June) compared to 2020 (Jan. – June).

So far in the first six months of 2022, Hispanics/Latinos (-24%) are seeing the largest percent decrease in opioid-related ED visits, followed by the 20 to 34 age group (-23%), and Whites (-14%) when compared to the same time in 2021. On the other hand, those 75 years and older (44%) had the highest percent increase for opioid-related ED visits, followed by those grouped in the "Other Race" category (39%), and Blacks or African Americans (22%) when comparing 2022 (Jan. – June) to 2021 (Jan. – June). The 35 to 74 age group had no change in the number of opioid-related ED visits in 2022 compared to the year prior.

Percent change comparisons of suspected opioid overdose ED visits from January to June in 2019 to the same time in 2022 show that those 75 years and older had the highest percent increase, increasing from only 13 ED visits in 2019 to 79 in 2022. Since 2019 (Jan. – June), opioid-related ED visits among those identifying as Black or African American (244%) have more than tripled, and those ages 55 to 74 (175%) have nearly tripled. On the other hand, those ages 20 to 34 have seen an 8% decrease since 2019 (Jan. – June).

Demographic groups not reflected in the chart above had less than 10 ED visits over the years and their data has been suppressed.

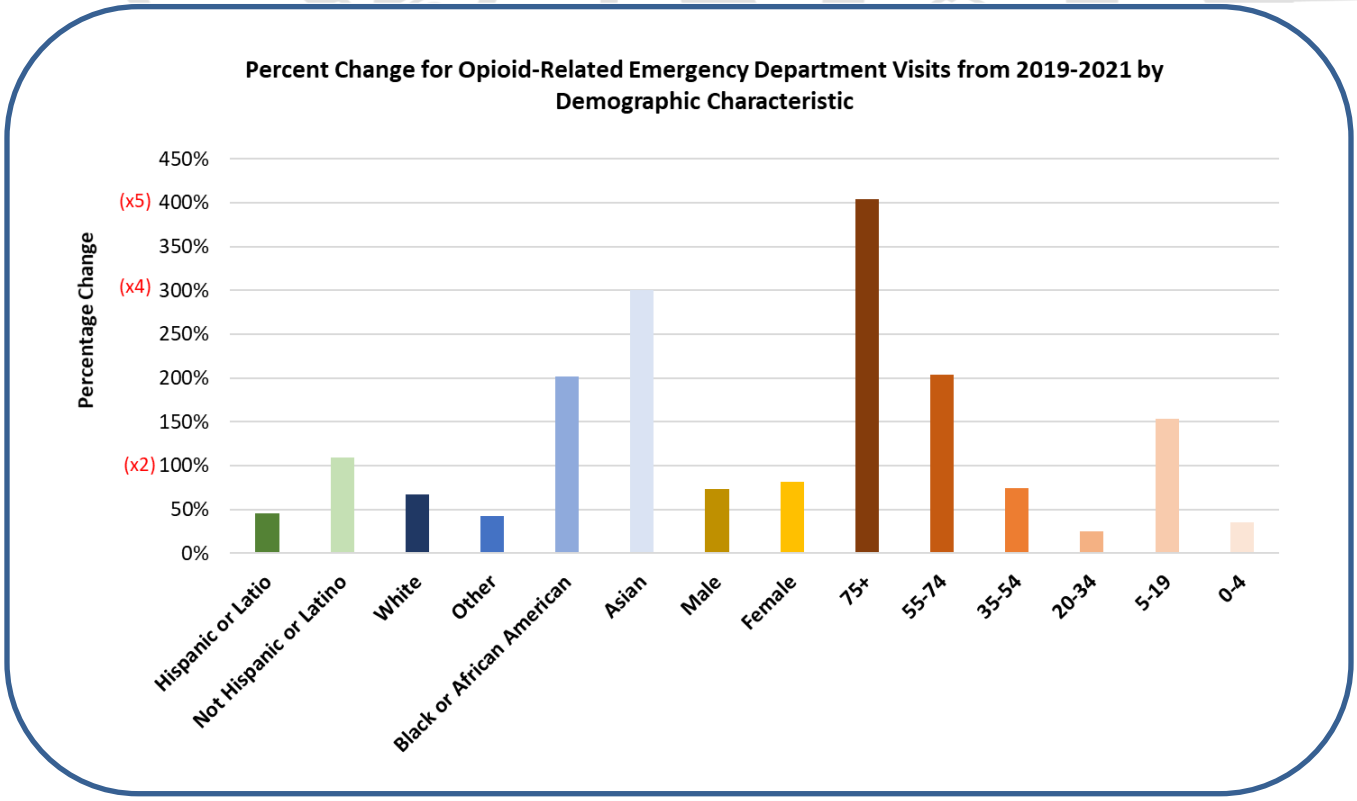


Figure 23. The figure above compares the percentage change from 2019 compared to 2021 for suspected opioid overdose among various population groups based on ethnicity, race, sex, and age group. As can be seen, several groups in Duval County are disproportionately impacted by suspected opioid overdose. Although Whites have a higher number of ED visits, Black or African Americans experienced a much higher percentage increase during this time period. Although suspected opioid overdose ED visits among Asian populations were low overall, visits quadrupled in 2021 compared to 2019. Those who are 75 and older, again experienced the highest percentage increase compared to any other demographic group. Specifically, visits among people aged 75+ were 5 times higher in 2021 (N = 134) than they were in 2019 (N = 27). Duval County residents ages 55 to 74 and residents ages 5 to 19 also experienced high percentage increases.

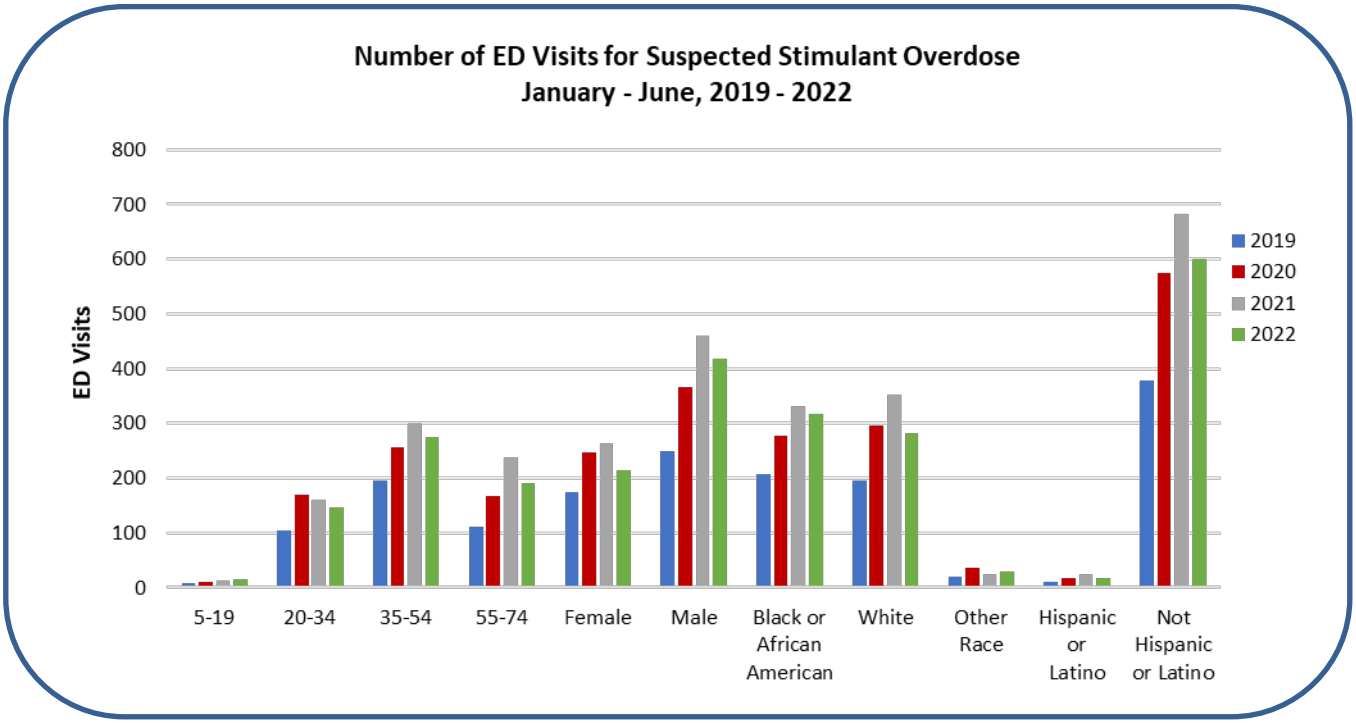


Figure 24. This figure compares suspected stimulant overdose ED visits from January to June over four years (2019 through 2022).

Since 2019 to 2021, all stimulant-related ED visits increased overall, with the exception of the "Other Race" group who saw a 31% decrease and those ages 20 to 34 who saw a 6% decrease in 2021.

On the other hand, those identifying as Hispanic or Latino (50%) had the highest percent increase, followed by those ages 55 to74 (43%), and those ages 5 to 19 who had a 33% increase when comparing January to June in 2020 to the same time in 2021. In the first six months of 2022, except for those in the "Other Race" group and those in the 5 to 19 age group who saw a 21% and 17% percent increase respectively, several groups have seen decreases in the number of stimulant-related ED visits when compared to the same time in 2021. Hispanics or Latinos (-33%) saw the largest percent decrease, followed by Whites and those ages 55 to 74 which both saw a 20% decrease, and females who saw a 19% decrease when comparing 2021 (Jan. – June) to 2022 (Jan. – June).

All groups had a percent increase in stimulant-related ED visits in 2022 (Jan. – June) compared to 2019 (Jan. – June). Those ages 5 to 19 saw ED visits double during this time frame, followed by those identifying and Hispanic and Latinos who saw a 78% increase, those ages 55 to 74 who saw a 71% increase, and males who saw a 68% increase.

Demographic groups not reflected in the chart above saw less than 10 cases over the years and their data has been suppressed.

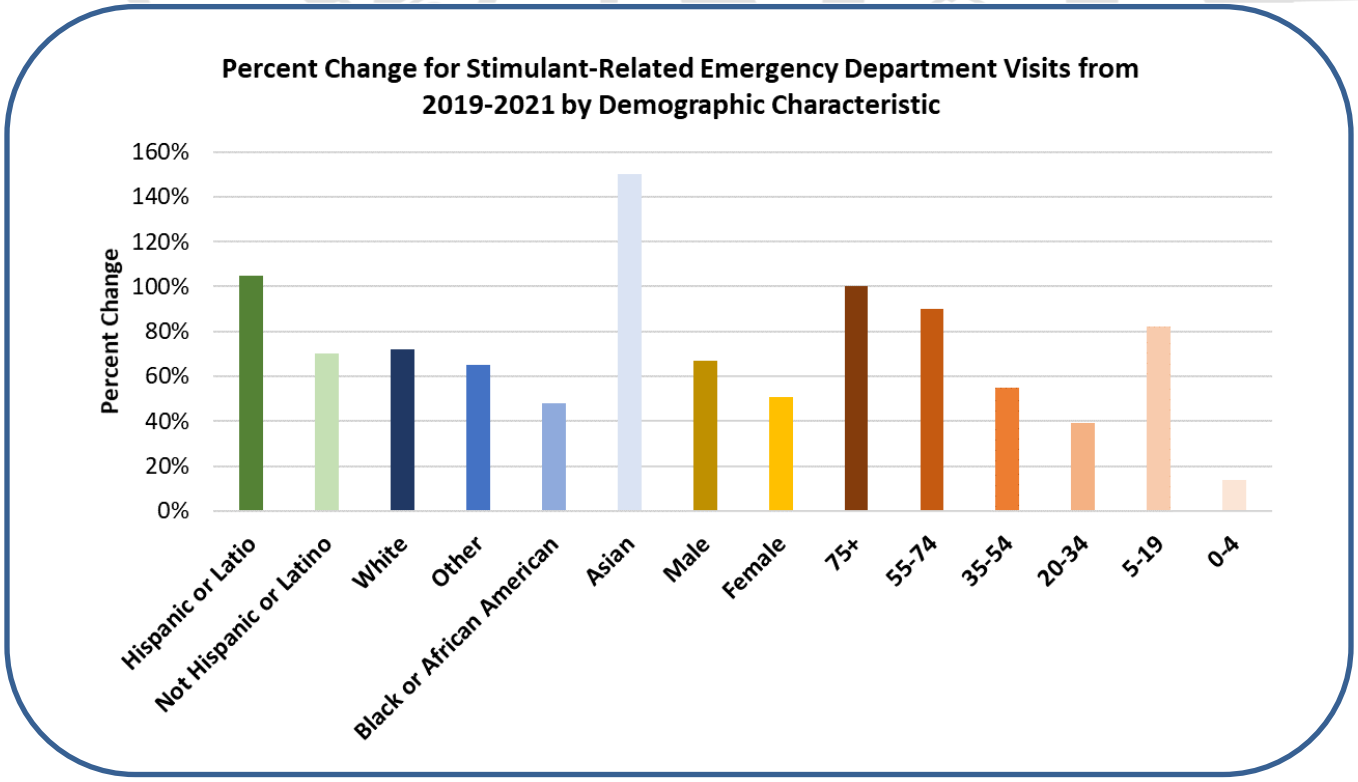
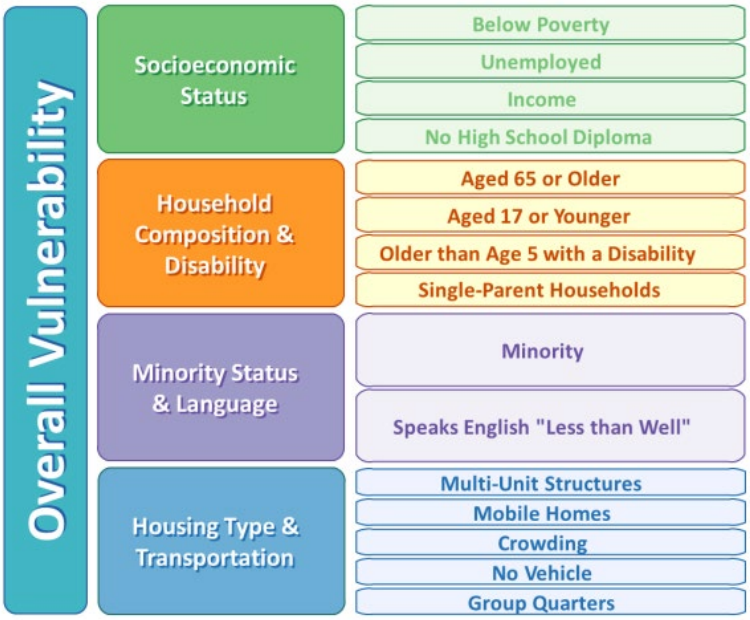


Figure 25. This figure compares the percentage change for suspected stimulant overdose among various population groups based on ethnicity, race, sex, and age group. ED visits among Hispanic and Latino populations more than doubled from 2019 to 2021. According to the 2021 Census, Hispanics and Latinos accounted for 11.3% of the population in Duval County. Compared to other drug types (benzodiazepines and opioids) Hispanic and Latino groups have a higher percent increase for stimulant overdose than their Not Hispanic or Latino counterparts. When examining data by drug type (benzodiazepine vs. opioid vs. stimulant), uniquely, Black or African American and White populations experience a nearly equal number of stimulant related ED visits. However, based on the Census, Whites make up 60% of the Duval County population and Black or African Americans make up 31.1%. For the other drug types (benzodiazepines and opioids) Whites have a higher number of suspected overdoses. When comparing the percent increase for stimulant-related ED visits by age group, the percent increase is highest among those who are 75 years of age and older. Nonetheless, this group does not experience the highest number of stimulant-related ED visits. Those who are 55-74 experience the second highest number and percent increase in suspected simulant overdose ED visits in 2021 compared to 2019.

➢ **Figure 26.** Health impacted by genetics, clinical care, the environment, and behavior. Social determinants of health are factors that influence a person's quality of life and are conditions in which people are born, grow, live, work, worship, and age. All people experience environmental factors that determine their vulnerability or resilience to substance use and mental health challenges. People with multiple risk factors have a greater likelihood of experiencing poor health outcomes. On the other hand, people with multiple protective factors are at a reduced risk.

Examples of risk and/or protective factors include:

- Stigma
- Trauma and pain
- Problem-solving & coping skills
- Language & health literacy
- Access to substances, treatment, & harm reduction resources
- Social support or relationship instability
- Access to affordable & stable housing, transportation, safe neighborhoods
- Quality education, job opportunities, & adequate income



➢ **Figure 27. Social vulnerability** refers to the potential negative effects on communities caused by external stresses on human health. The **social vulnerability index (SVI)** uses 15 U.S. census variables to summarize community level social determinants of health measures which can help identify communities most vulnerable to public health emergencies that need support. SVI is measured from 0 to 1, with 0 being least vulnerable and 1 being most vulnerable

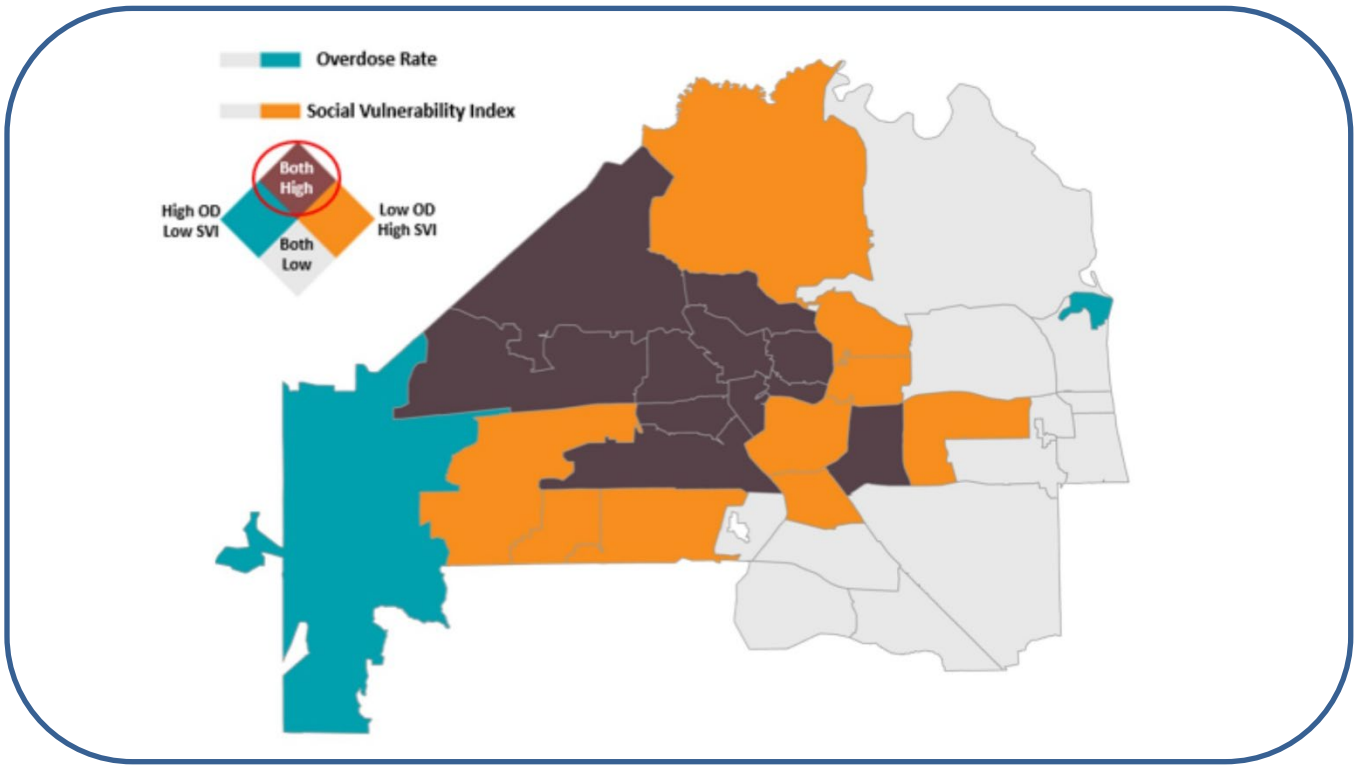


Figure 28. Generally, people living in zip codes with higher social vulnerability are at higher risk of experiencing an overdose than people living in zip codes with lower social vulnerability. That said, keep in mind that data for ED visits relies on health care seeking behavior which may be impacted by barriers like poverty, insurance status, age, transportation, and many others.

On the map above, areas shaded in brown have a high rate of ED visits for suspected overdose and rank high on the social vulnerability index (SVI). Residents living in these areas have a greater likelihood of experiencing an overdose and are less likely to have the necessary support systems in place which are essential to promote recovery. Developing plans to provide prevention programs in these areas can result in the maximum level of impact and likewise promotes health equity because with this information we can tailor our strategies to meet the needs of the population and ensure that everyone has a fair opportunity to be as healthy as possible. These correlations underscore the importance of identifying under-resourced communities for early intervention and programs or practices that target multiple, rather than single, factors which can produce a positive effect on multiple health outcomes.

Emergency Medical Services (EMS) Incidents for Suspected Overdose

ED and EMS data often provide more updated displays of trends than death records data. This occurs because there is a delay in officially confirming death by overdose as it requires the consolidation of data from several sources, such as the results from toxicology and an autopsy. In this instance, EMS incidents refer to calls made to 911 in which EMS is dispatched for suspected overdose incidents.

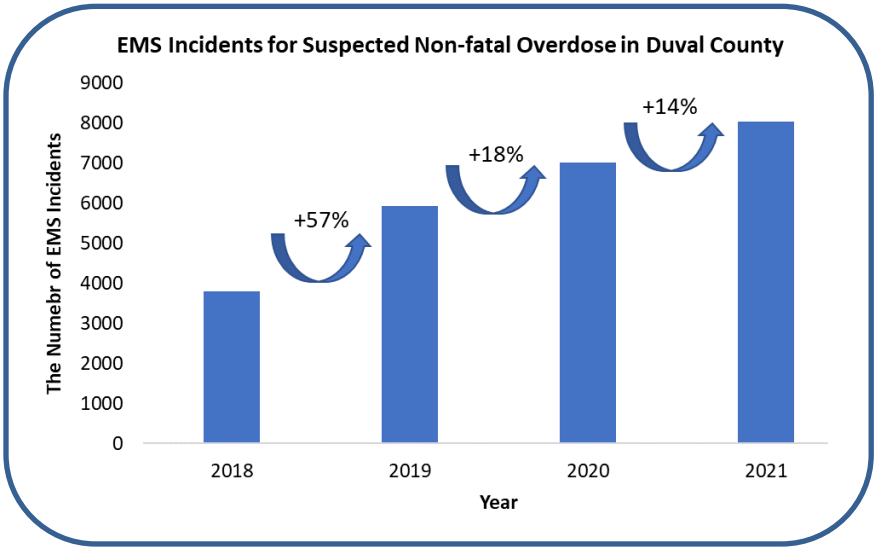
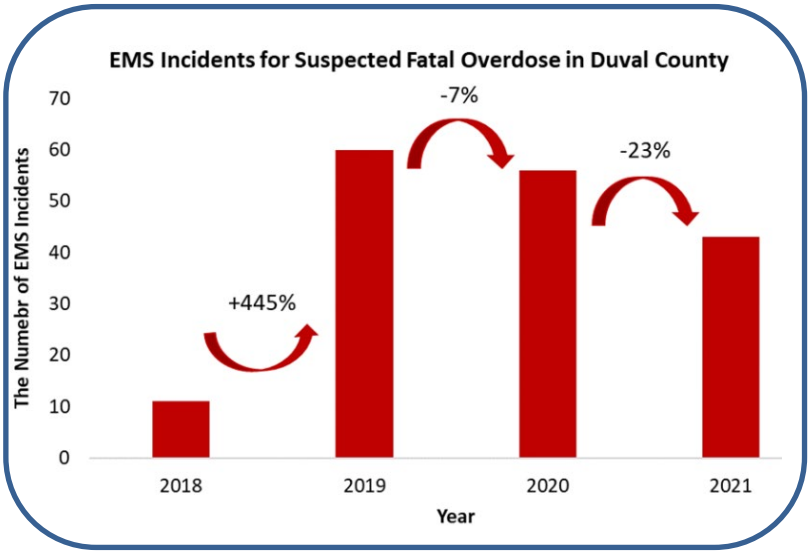


Figure 29. EMS incidents for suspected non-fatal overdoses have increased significantly since 2018, with the largest increase occurring in 2019. Year 2021 saw a 112% total increase from 2018, meaning that EMS responses for non-fatal overdose have more than doubled since 2018.

Figure 30. EMS incidents with fatal outcomes increased dramatically in 2019 but have slightly decreased since then. Several programs in Duval County were implemented during this time to prevent fatal overdose. The training programs or communication campaigns aimed to increase overdose awareness may have contributed to the slight decrease. Likewise, increasing community-based distribution of medications for opioid overdose reversal, such as Narcan/Naloxone nasal spray, has likely reduced risk of death during an overdose. Over the years, administration of Naloxone prior to EMS arrival has also increased.



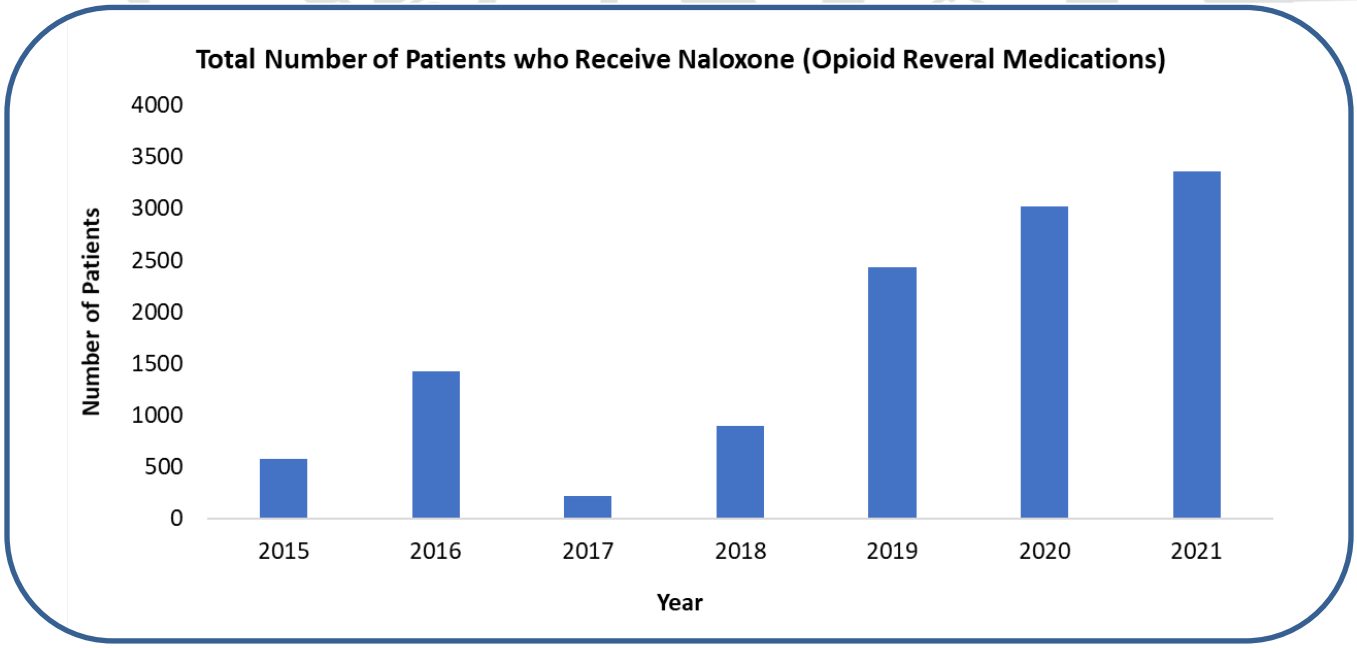


Figure 31. The number of patients who receive naloxone, an opioid overdose reversal medication, has increased by 483% since 2015 which is nearly 6 times higher in 2021 compared to 2015. Surveillance data collected by OD2A shows that the drug supply is contaminated with opioids, such as fentanyl. This has likely contributed to increased number of patients who are given naloxone in the event of a suspected overdose.

Acknowlegements:

Project Opioid JAX thanks the following organizations for their contributions to this report:

Community Coalition Alliance
Jacksonville Fire and Rescue Department
LSF Health Systems
North Florida HIDTA
Office of the Medical Examiner, District 4

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