

# **Excessive Alcohol Consumption and Violence 2016-2020**

## **Courts, Corrections, and Justice Subcommittee**

### **8/24/2022**

*Presenters*

*New Mexico Department of Health*

*Epidemiology and Response Division (ERD)*

*Office of Injury Prevention &*

*Injury and Behavioral Epidemiology Bureau*

# Presentation Overview

- Excessive Alcohol Consumption & Harms
- Alcohol Related Disease Impact
- Economic Costs of Excessive Alcohol
- Excessive Alcohol, Violence, & Outlet Density
- Youth Risk & Resiliency Survey (YRRS)
- New Mexico Violent Death Reporting System (NMVDRS)
  - Alcohol and Types of Violent Death
  - Alcohol and Methods of Violent Death
  - Alcohol and Violent Death Circumstances

# Excessive Alcohol Consumption and Harms

- Health Risks of Excessive Alcohol Consumption include increased incidence of:
  - Unintentional injury
  - Violence
  - Sexually transmitted disease
  - Unintended pregnancy and poor pregnancy outcomes
  - Chronic disease (such as high blood pressure, stroke, heart disease, and liver disease)
  - Cancer (for example - breast, mouth, throat, esophagus, liver, and colon)



# Excessive Alcohol Consumption and Harms

- Excessive alcohol use is a leading cause of preventable death in the United States.
- In the United States between 2015 and 2019 more than 140,000 people died each year from excessive alcohol use, which is about 380 people per day.
- On average those who died from excessive alcohol use died 26 years prematurely.

[Deaths from Excessive Alcohol Use in the United States | CDC](#)

# Excessive Alcohol Consumption and Harms

- New Mexico has the highest alcohol related death rate of any state in the United States. ([Deaths and Years of Potential Life Lost From Excessive Alcohol Use — United States, 2011–2015 | MMWR \(cdc.gov\)](#))
- Excessive alcohol related death rates are increasing in both New Mexico and the United States.
- In New Mexico in 2020 1,878 people died from excessive alcohol related causes.

TABLE 2. Annual average number of deaths and years of potential life lost from excessive alcohol use,\* by state — United States, 2011–2015

Location	Alcohol-attributable deaths	Age-adjusted alcohol-attributable deaths per 100,000-population	Years of potential life lost	Years of potential life lost per 100,000-population	Years of potential life lost per alcohol-attributable death
New Jersey	2,016	20.9	59,604	669.4	29.6
New Mexico	1,145	53.1	35,087	1,683.5	30.6
New York	4,473	20.8	124,315	631.9	27.8
North Carolina	2,876	27.2	85,199	865.4	29.6
North Dakota	216	28.7	6,402	887.1	29.6
Ohio	3,674	29.2	106,752	922.2	29.1

# Alcohol-Related Disease Impact (ARDI), CDC

- CDC's ARDI application produces an estimate of the number of alcohol-related deaths.
- This estimate is based on the alcohol-related fraction of 58 different causes of death.
  - These include causes that are 100% alcohol-related (such as alcoholic liver disease and alcohol poisoning),
  - as well as causes that are less than 100% alcohol-related (such as some cancers, and hypothermia).
- These alcohol-related rates can vary by sex, and age.

# Alcohol-Related Disease Impact (ARDI), CDC

- These causes of death can be broadly categorized as due to chronic conditions or injury causes.
- Violent causes of death that are part of the ARDI include:
  - Suicide 24% alcohol-attributable
  - Child Maltreatment 16% alcohol-attributable
  - Fire Arm Injury 18% alcohol-attributable
  - Homicide 47% alcohol-attributable
- Alcohol-attribution for Motor Vehicle Traffic Crashes vary by age and gender, with those 25-34 having the highest alcohol-related fractions (51% for males and 54% for females).

# Alcohol-Related Disease Impact (ARDI), CDC

Alcohol-related Death, Specific Causes of Death, 2020	
Cause Grouping	Number of Alcohol-related Deaths
Alcohol Abuse/Dependance	331
Alcohol Poisoning	112
Chronic Liver Disease	632
Falls	28
Homicide	100
Liver Cancer	14
Other	135
Other Cancer	26
Other Poisoning	223
Suicide	125
Traffic Crash	151
<b>Total</b>	<b>1878</b>

Source: NMDOH Bureau of Vital Records and Health Statistics, CDC ARDI v3

# Economic Costs of Excessive Alcohol

- The cost of excessive alcohol in New Mexico was estimated to be \$2.2 billion in 2010.
- This is an average of more than \$1,000 per NM resident per year.
- Nationally, 77% of the cost of excessive alcohol consumption is due to binge drinking. In NM the rate is 75.2%.



Sacks, et al, 2015

# Excessive Alcohol and Violence

- Child Abuse or Maltreatment:
- The World Health Organization (WHO) reports that in a US 35% of parental offenders of child abuse had consumed alcohol or used drugs prior to their offence

[https://www.who.int/violence\\_injury\\_prevention/violence/world\\_report/factsheets/fs\\_child.pdf](https://www.who.int/violence_injury_prevention/violence/world_report/factsheets/fs_child.pdf)).

# Excessive Alcohol and Violence

- Sexual Assault:
  - About half of perpetrators of sexual assault had consumed alcohol (rates range from 34 to 74%) (Abby, et al, 2001 which can be found at <https://pubs.niaaa.nih.gov/publications/arh25-1/43-51.htm> )
- Intimate partner violence:
  - The World Health Organization reports that a study from the US showed that 55% of victims of intimate partner violence believed the perpetrator to have consumed alcohol prior to the assault ([fem-whoms-alco-eng.pdf \(canada.ca\)](#)).



# Excessive Alcohol and Violence

- Alcohol and incarceration
- Thirty-one percent of state prisoners and 25% of federal prisoners reported drinking alcohol at the time of the offense.  
<https://bjs.ojp.gov/library/publications/alcohol-and-drug-use-and-treatment-reported-prisoners-survey-prison-inmates#:~:text=Thirty%2Done%20percent%20of%20state,the%20time%20of%20the%20offense.>

# Excessive Alcohol and Violence

- In the United States, more than half (56.6%) of all inmates and inmates who committed violent crimes (57.7%) “were either under the influence of alcohol at the time of the crime, had a history of alcohol treatment, or had an alcohol use disorder.” <https://files.eric.ed.gov/fulltext/ED509000.pdf>
- Almost one in four victims of violent crime report that the offender had been drinking alcohol prior to committing the crime.  
<https://pubs.niaaa.nih.gov/publications/10report/chap01c.pdf>

# Alcohol Outlet Density

- Alcohol outlets are places where alcohol may be legally sold.
  - Buyers may purchase to drink on site (on-premise outlets like restaurants and bars)
  - Buyers may purchase to drink elsewhere (off-premise outlets like grocery stores, convenience stores, and liquor stores).
- Alcohol outlet density refers to the number of outlets in a given area.

# Excessive Alcohol, Violence, and Outlet Density

- Higher alcohol outlet density is associated with:
  - More exposure to violence (Theall et al, 2009),
  - Higher rates of child abuse (higher off-premise outlet density), and
  - Higher rates of child neglect (higher on-premise outlet density) (Morton et al, 2014),
  - Higher rates of intimate partner violence (Cunradi et al, 2011).



# Youth Risk and Resiliency Survey (YRRS)

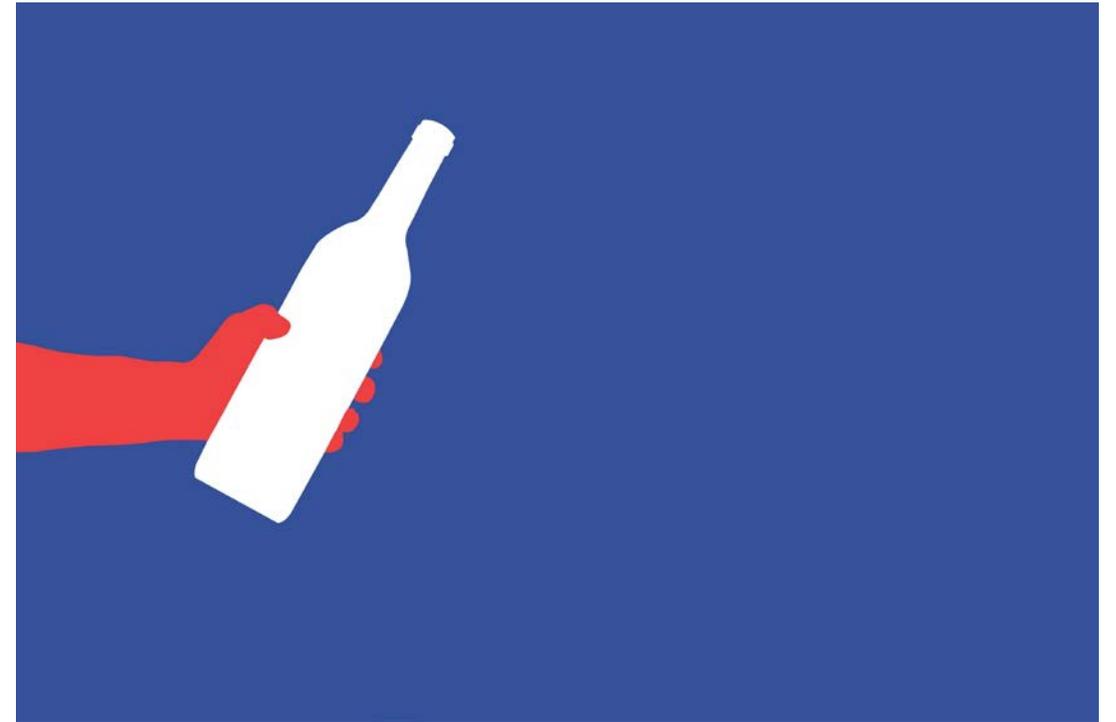
- The New Mexico Youth Risk and Resiliency Survey (YRRS) is a part of the national Youth Risk Behaviors Surveillance System (YRBSS), which is designed and supported by the Centers for Disease Control and Prevention (CDC).
- Most questions are designed and tested by the CDC. State added questions are also included.
  - NM's state added questions include items about resiliency and an expanded section on substance use.
- The YRRS is administered in odd numbered years, and data are made available in autumn of the following year.
- Middle school and High school students are surveyed.

# Youth Risk and Resiliency Survey (YRRS)

- The YRRS is administered through a collaboration between local education agencies, NM Public Education Department (NM PED), UNM Prevention Research Center (UNM PRC), and NMDOH.
  - Key support comes from the Behavioral Health Services Division of the NM Human Services Department (BHSD), the Albuquerque Area SW Tribal Epidemiology Center (AASTEC), and local prevention organizations.
- Data are collected through a combination of paper and on-line survey instruments.
- Data analysis is conducted by NMDOH and UNM PRC.
- Data are weighted to represent the NM population.
- Dan Green ([Dan.Green@state.nm.us](mailto:Dan.Green@state.nm.us)) is the YRRS epidemiologist at NMDOH

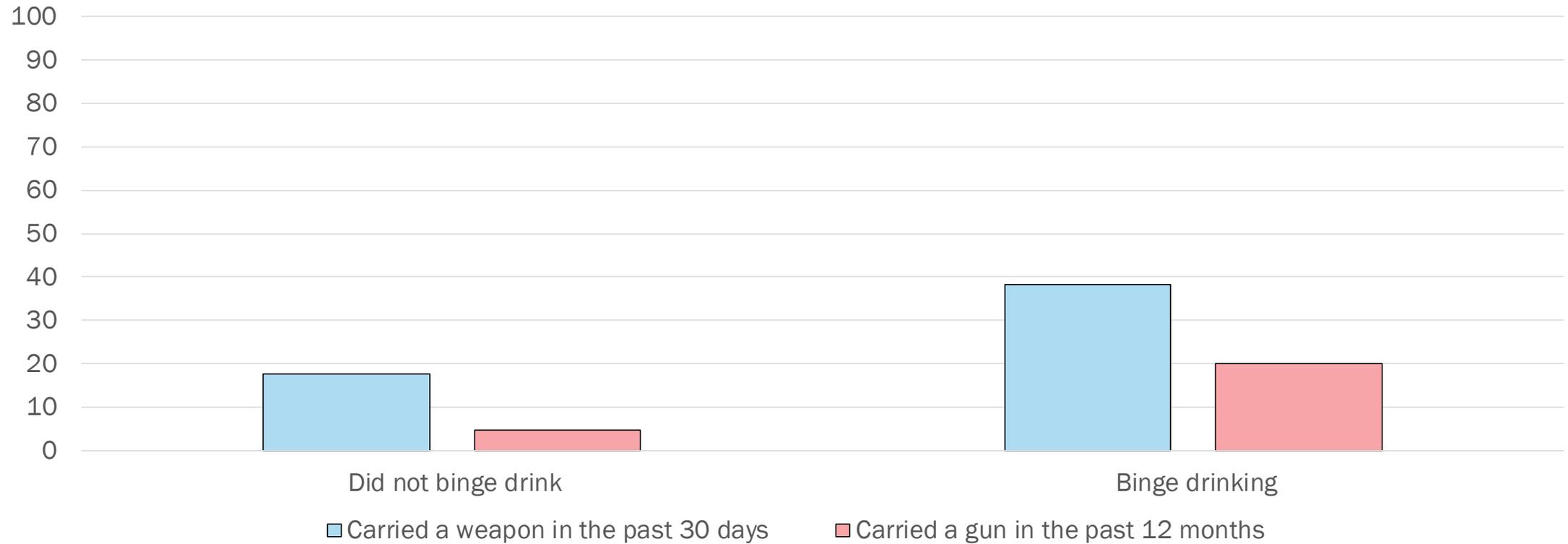
# Binge Drinking

- Binge drinking is:
- Consuming 4 or more standard drinks on a single occasion for women or girls, or
- Consuming 5 or more standard drinks on a single occasion for men or boys.
- This is approximately the amount of alcohol that will result in a .08 bac for the average woman or average man.
- Binge drinking is the most frequent, harmful, and costly form of excessive alcohol consumption.



# YRRS 2019 - Alcohol, Safety

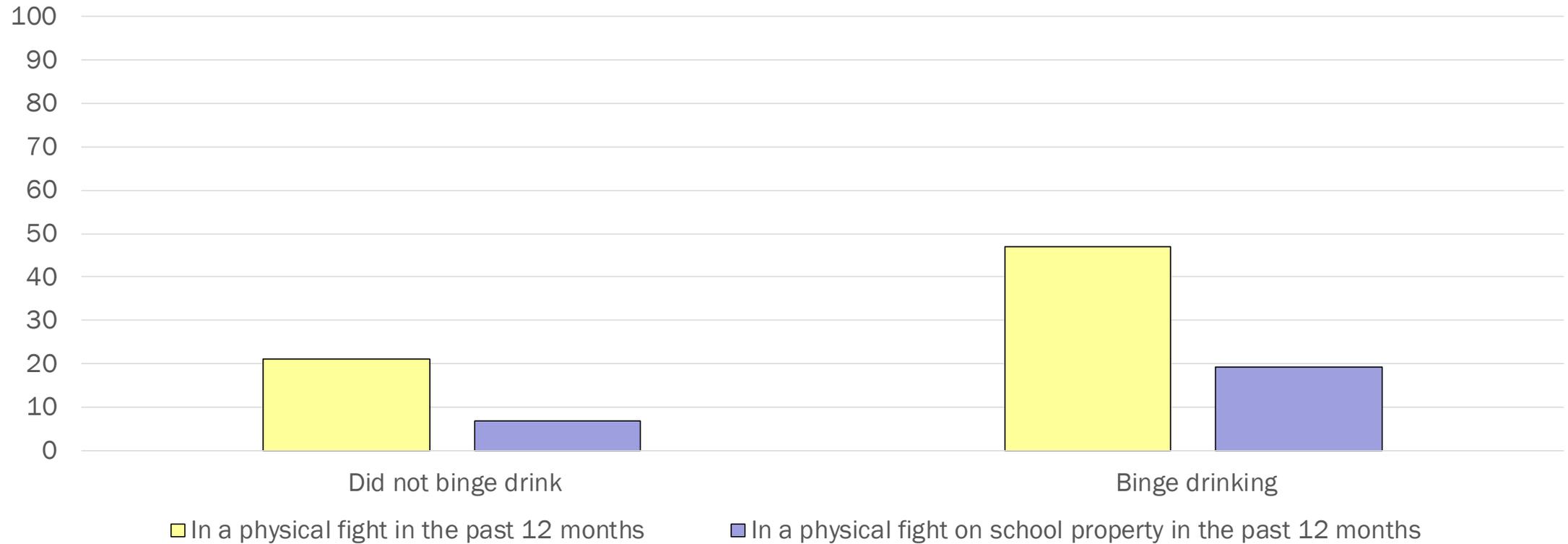
## Safety-Related Risks: Weapons



Source: YRRS, NMDOH. Dan Green, YRRS Epidemiologist and Dylan Pell Mental Health Epidemiologist

# YRRS 2019 - Alcohol, Safety

## Safety-Related Risks: Fighting



Source: YRRS, NMDOH. Dan Green, YRRS Epidemiologist and Dylan Pell Mental Health Epidemiologist

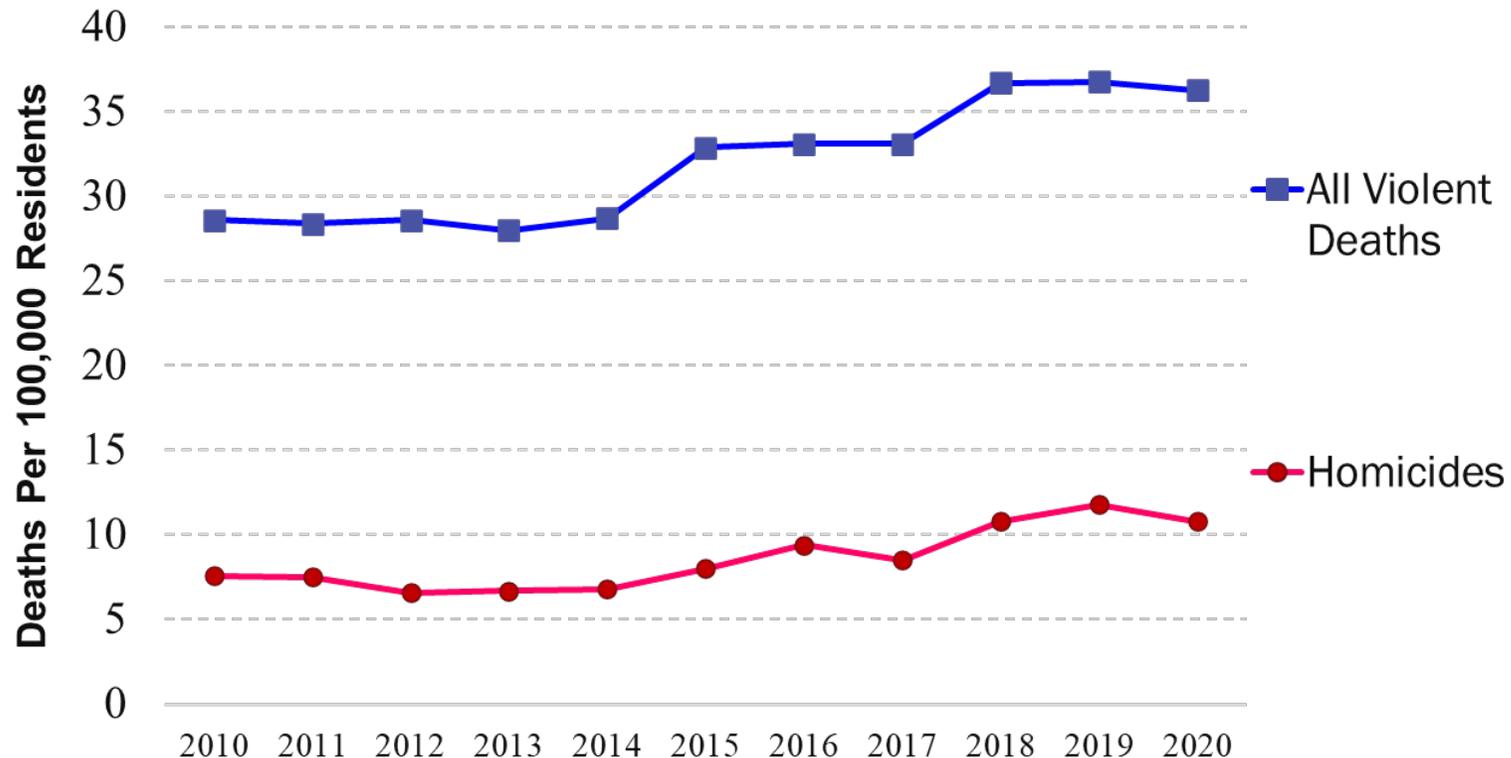
# New Mexico Violent Death Reporting System (NMVDRS) Overview

- The NMVDRS is a state-based surveillance system that links data from multiple sources including
  - Law enforcement agencies, Coroners/medical examiners, Vital death statistics, and Crime laboratories
  - Collects information on over 600 variables including risk factors, circumstances around the death and toxicology
  - Purpose is the reduction and prevention of violent deaths
- NMVDRS uses WHO definition: “A death resulting from the intentional use of physical force or power against oneself, another person, or against a group or community”
- The NMVDRS has been collecting information since 2004

# New Mexico Violent Death Reporting System (NMVDRS) Limitations

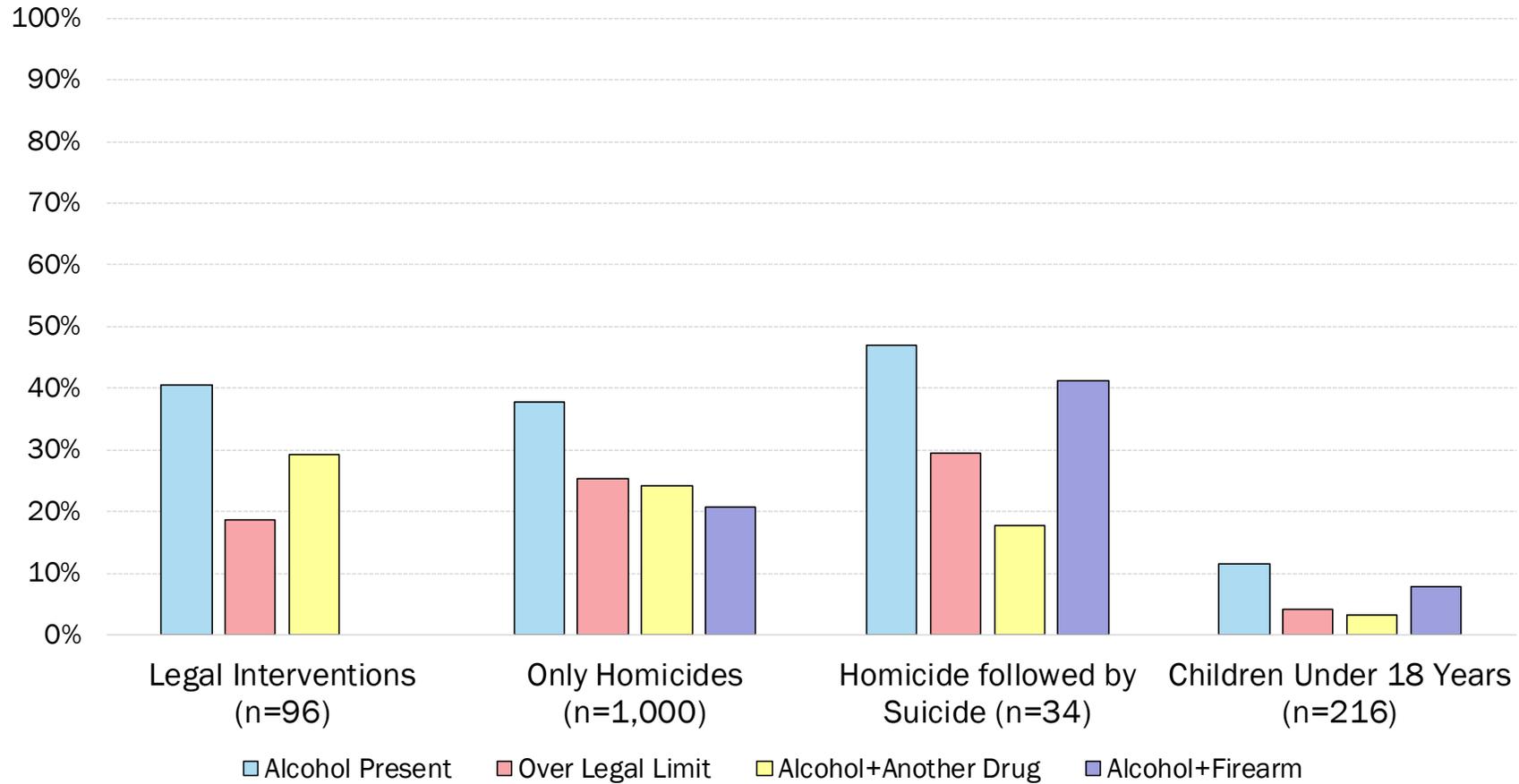
- Typically collects information on the decedent (which are typically the victims of violent deaths)
- Information about the perpetrator of intentional deaths is typically not collected/known
- Relies on information collected/gathered in the field by law enforcement officials and medical examiners/coroners
  - Family, friends, and bystanders may not all know or have reservations sharing all information about the decedent to officials

# Rate (Age-Adjusted) of New Mexico Violent Deaths Per 100,000 Residents by Manner, NM, 2010-2020

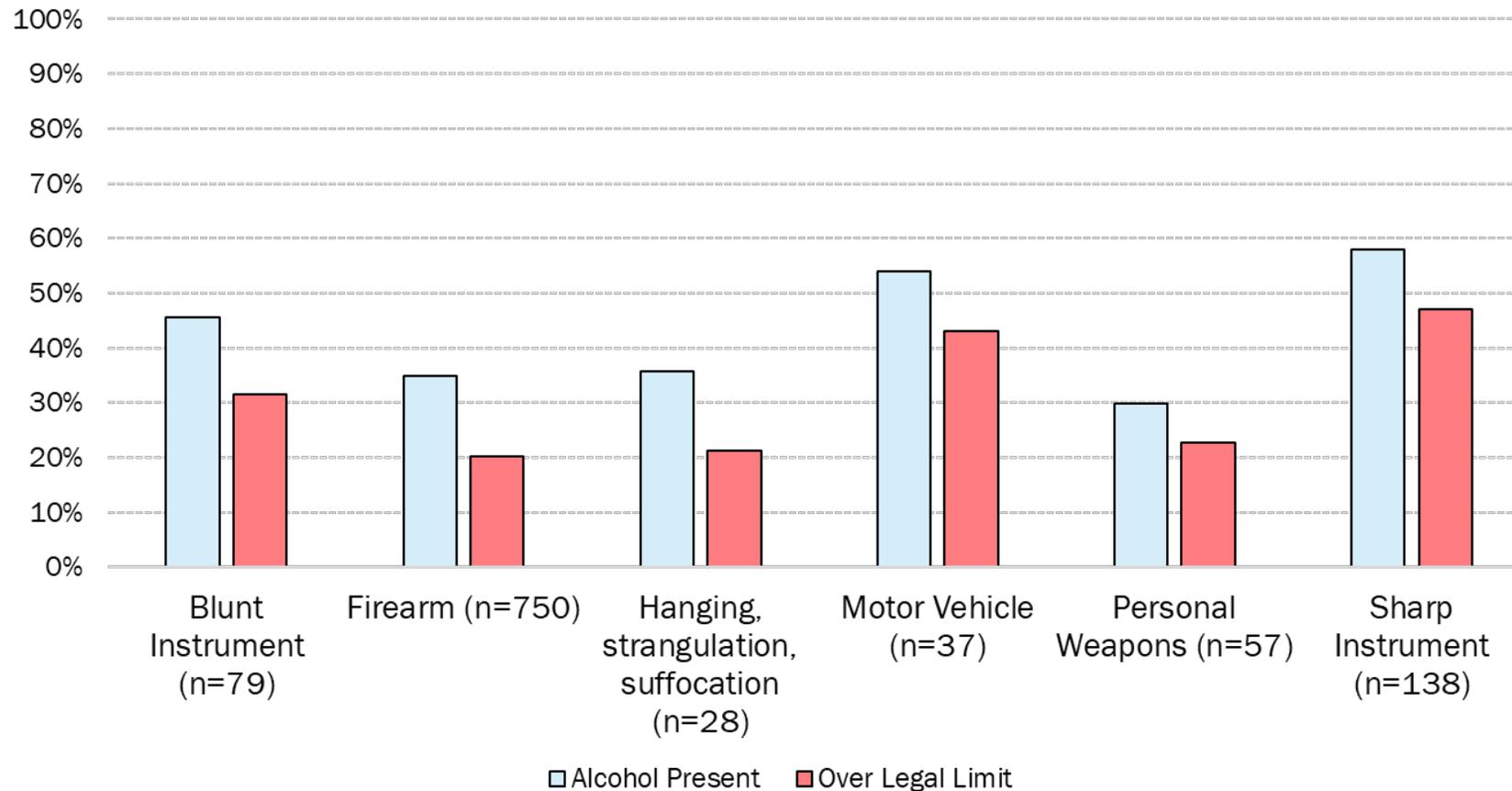


Data sources: CDC, Injury Center, NVDRS, 2010-2019 and NMVDRS, program data, 2020.

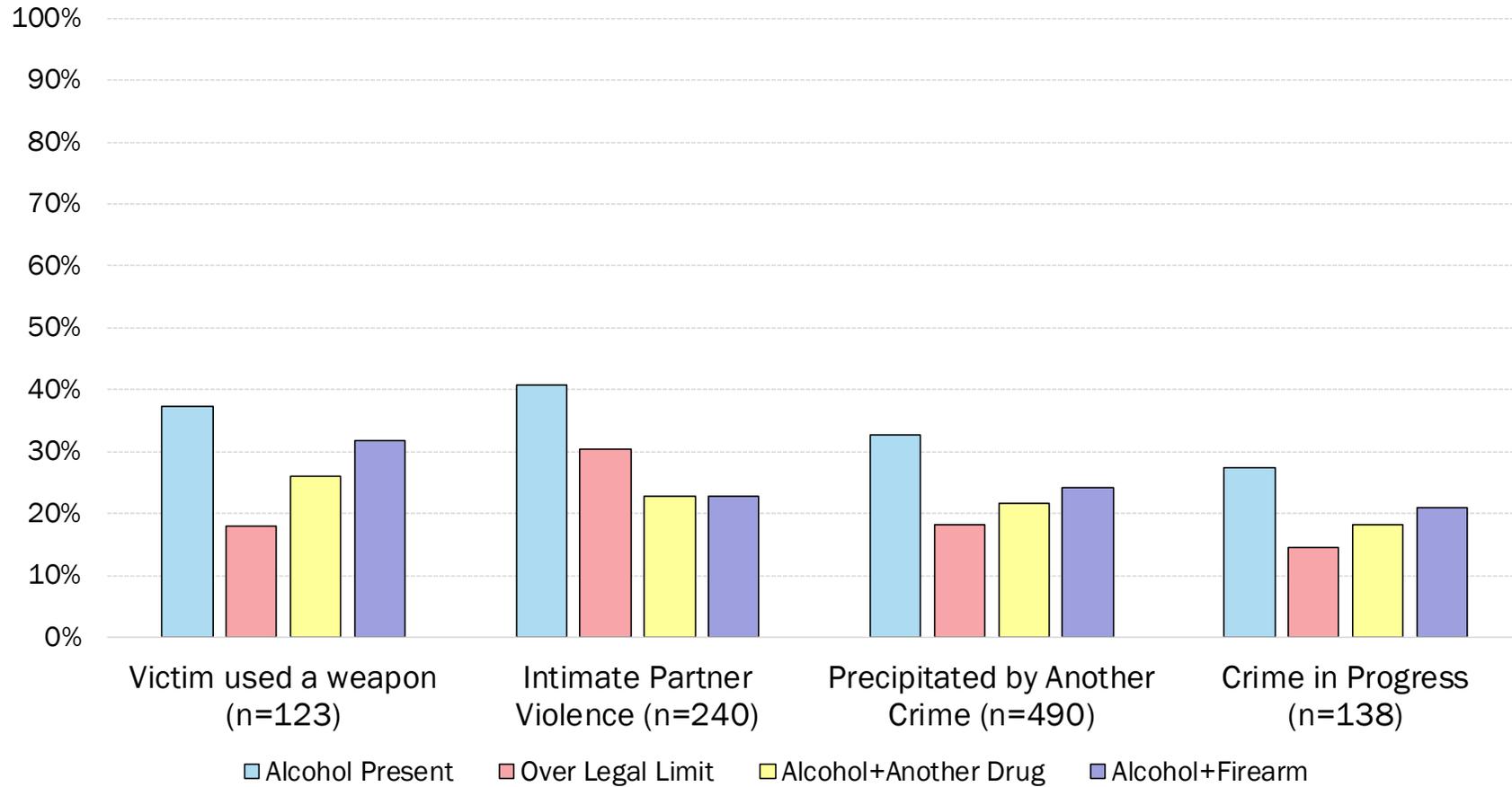
# Selected Types of Violent Deaths by Presence of Alcohol And Other Drugs/Firearms in Decedents, NM, 2016-2020



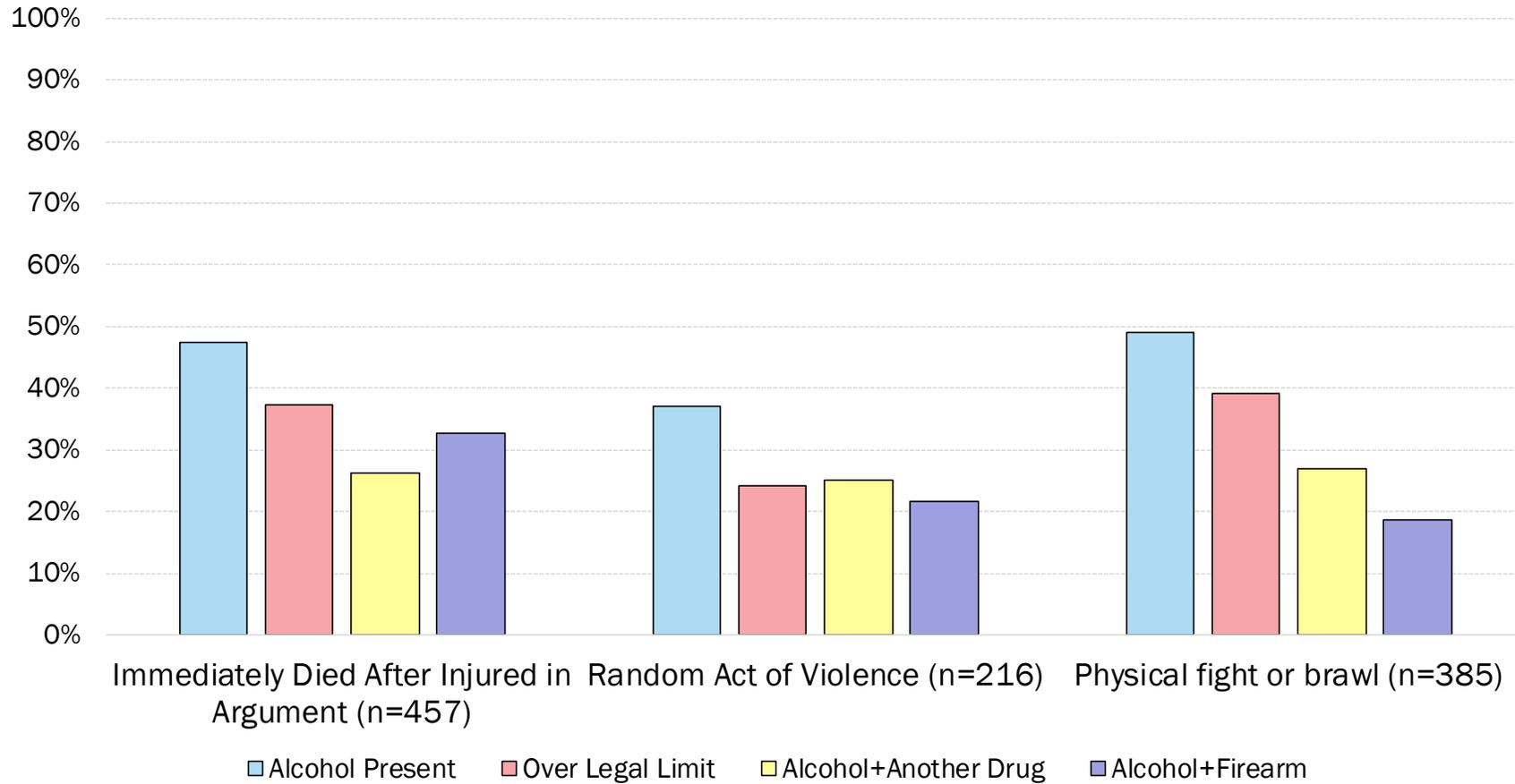
# Selected Means/Methods of Homicides and Legal Interventions Violent Deaths by Alcohol Presence in Decedents, NM, 2016-2020



# Selected Circumstances of Violent Deaths by Presence of Alcohol and Other Drugs/Firearms in Decedents, NM, 2016-2020



# Selected Circumstances of Violent Deaths by Presence of Alcohol and Other Drugs/Firearm in Decedents, NM, 2016-2020 (Cont.)



# Violent Death Summary

- Historically, over 81% of violent deaths had a reported result for alcohol
- Alcohol is most detected drug in violent death decedents (typically victim)
  - Present in 1 of 3 (~33%) decedents
    - 2 of 3 (67%) were over the legal limit (80 mg/dL)
    - About half used at least one other drug
      - Most common drugs also used with alcohol were marijuana or amphetamines
- Alcohol was detected in decedents in over 30% of selected violence-related circumstances
  - Over half those alcohol incidents also involved a firearm
    - Most cases the decedent did not use the firearm

# Questions/Feedback

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