

IAVDRS Medical Examiner Data

November 4th, 2023

Outline

1. IAVDRS overview
2. Program updates
3. ME Data



Top Four Leading Causes of Death, 2020

	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
1	Congenital Anomalies 4,043	Unintentional Injury 1,153	Unintentional Injury 685	Unintentional Injury 881	Unintentional Injury 15,117	Unintentional Injury 31,315	Unintentional Injury 31,057	Malignant Neoplasms 34,589	Malignant Neoplasms 110,243	Heart Disease 556,665	Heart Disease 696,962
2	Short Gestation 3,141	Congenital Anomalies 382	Malignant Neoplasms 382	Suicide 581	Homicide 6,466	Suicide 8,454	Heart Disease 12,177	Heart Disease 34,169	Heart Disease 88,551	Malignant Neoplasms 440,753	Malignant Neoplasms 602,350
3	Sids 1,389	Homicide 311	Congenital Anomalies 171	Malignant Neoplasms 410	Suicide 6,062	Homicide 7,125	Malignant Neoplasms 10,730	Unintentional Injury 27,819	Covid-19 42,090	Covid-19 282,836	Covid-19 350,831
4	Unintentional Injury 1,194	Malignant Neoplasms 307	Homicide 169	Homicide 285	Malignant Neoplasms 1,306	Heart Disease 3,984	Suicide 7,314	Covid-19 16,964	Unintentional Injury 28,915	Cerebrovascular 137,392	Unintentional Injury 200,955



Violence is a major **PUBLIC HEALTH PROBLEM.**

In the US,
**SEVEN
PEOPLE
PER HOUR**
die a
violent
death

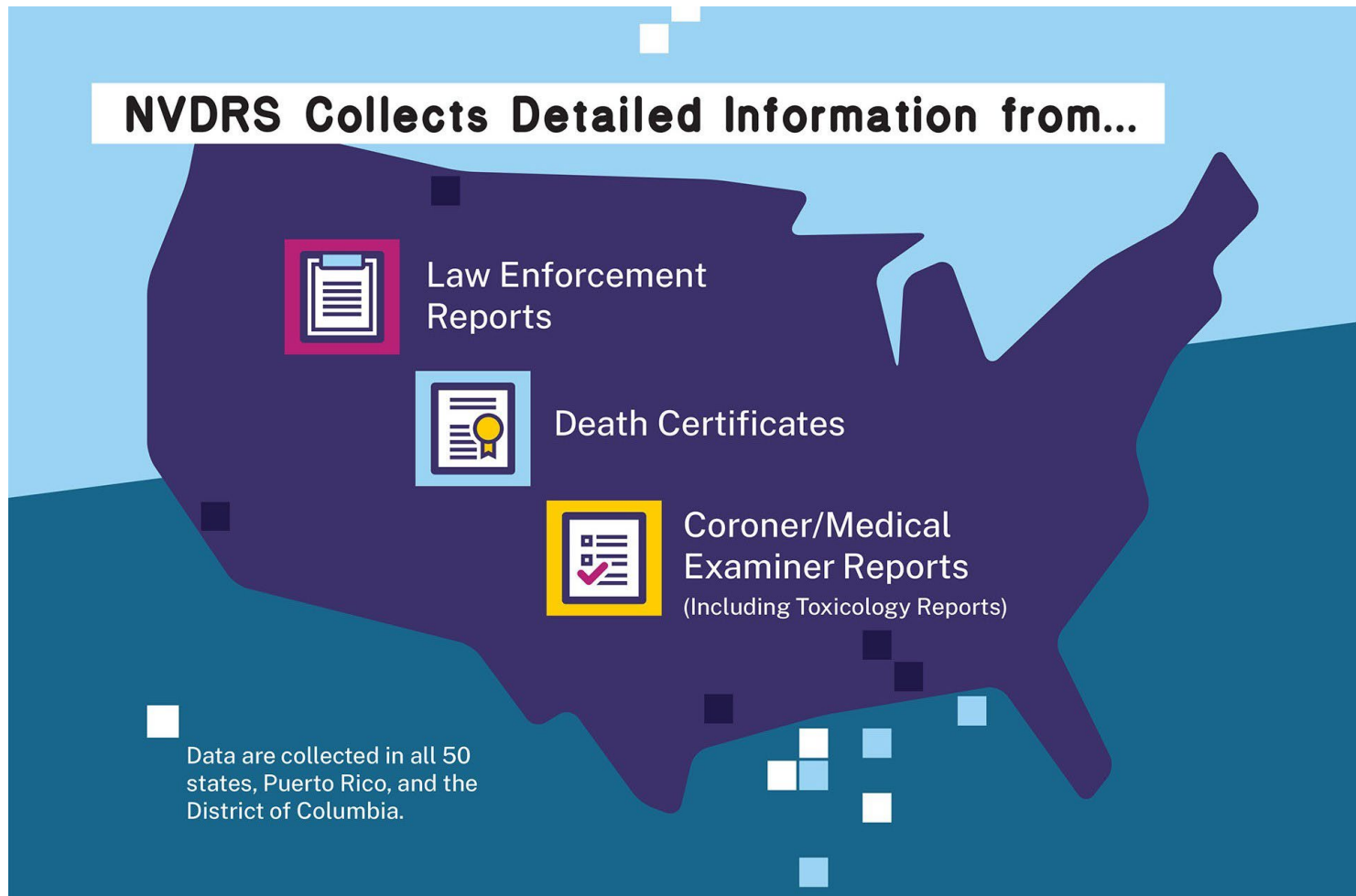
In 2017, more than
19,500 PEOPLE
DIED BY
HOMICIDE



In 2017, more than
47,000 PEOPLE
DIED BY
SUICIDE



These deaths cost the
economy nearly
\$90 BILLION
IN MEDICAL CARE AND
LOST WORK ALONE.



Data is collected on:

- Homicides
- Suicides
- Deaths resulting from law enforcement intervention
- Unintentional firearm injury deaths
- Deaths of undetermined intent
- Deaths resulting from terrorism

What KIND of Data Does NVDRS Collect?

NVDRS covers all types of violent deaths, in all settings, for all age groups. Over 600 data elements are captured, including:



Location of injury



Mental health problems and treatment



Characteristics of victim



Intimate partner violence



Relationship of victim to suspect



Physical health problems



Weapons used



Relationship problems



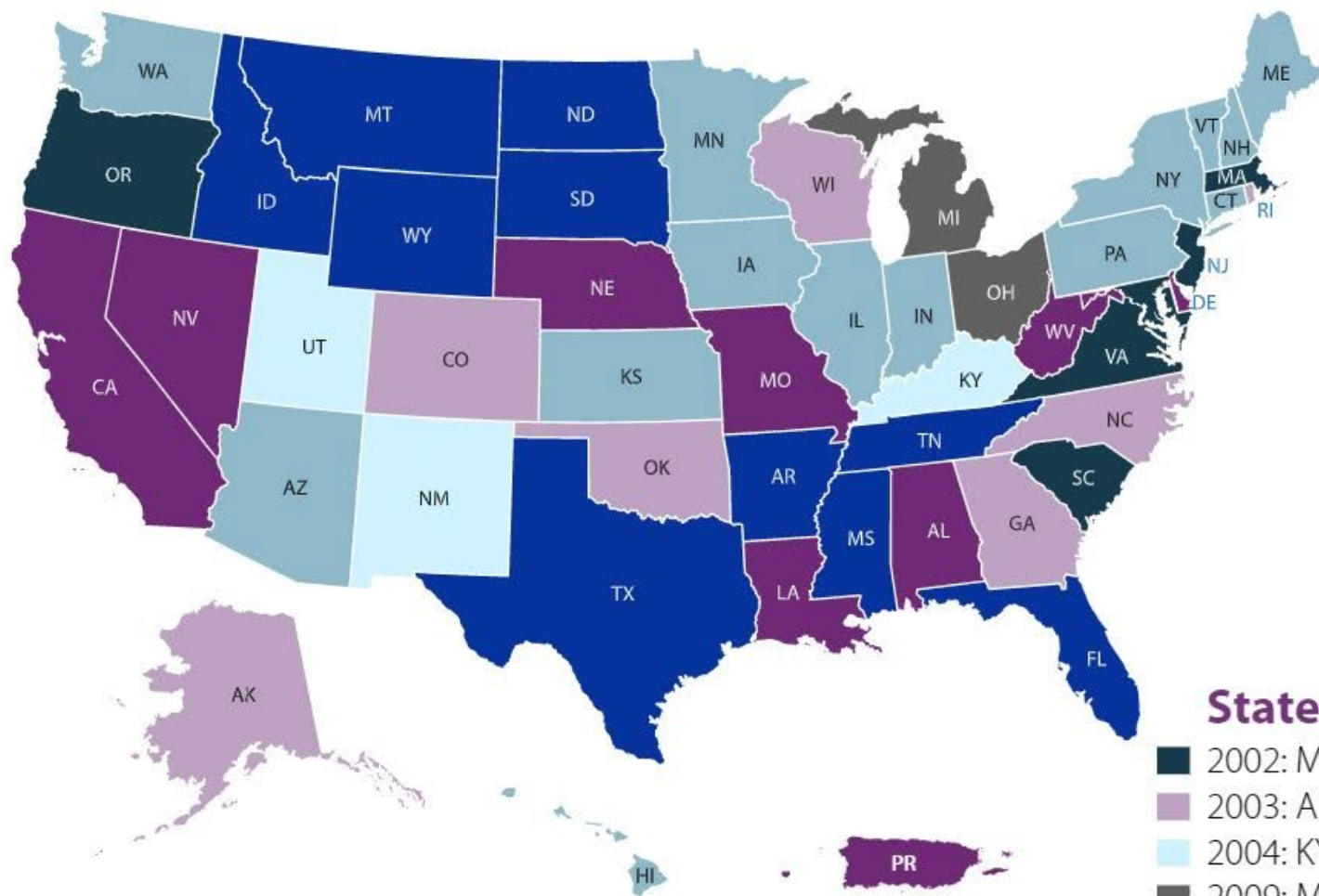
Toxicology reports



Problems with job or finances



Alcohol or substance abuse



The Reach of NVDRS

NVDRS began collecting data on violent deaths from six states in 2002, followed by progressive additions to the system over several years. **In 2018, NVDRS was expanded to include data collection from all 50 states, Puerto Rico, and the District of Columbia.** This expansion brings NVDRS closer to the goal of providing a complete picture of violent deaths across the nation

States added by year:

- 2002: MA, MD, NJ, OR, SC, VA
- 2003: AK, CO, GA, NC, OK, RI, WI
- 2004: KY, NM, UT
- 2009: MI, OH
- 2014: AZ, CT, HI, IA, IL, IN, KS, ME, MN, NH, NY, PA, VT, WA
- 2016: AL, CA, DE, DC, LA, MO, NE, NV, Puerto Rico, WV
- 2018: AR, FL, ID, MS, MT, ND, SD, TN, TX, WY

Iowa's Program Implementation



- *Funded by CDC
- *Project Direction & Oversight



- *Contractor of IDPH
- *Day-to-Day
- *Data collection + Abstraction
- + Analysis

Data Providers

- *IDPH Vital Records (Death Certificates)
- *Coroner & Medical Examiners
- *Investigating LE Agencies

IAVDRS Advisory Committee

Data Abstracting



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CDC System (SAMS)

Program Quality Metrics

Data Timeline



2021	2021 year ends	End of 2022 - 2023	May 2023 Complete
Death certificate data from vital records sent and medical examiner reports requested	Data request from law enforcement Begins Abstraction of data from medical examiner reports begins	Abstraction of data from law enforcement records and quality control	Data closeout Results used in reports

Data Updates

2021 Suicide Report

Suicide Report



Occurring in Iowa

683 Violent Deaths

543 Suicide Deaths (80%)

Iowa Residents

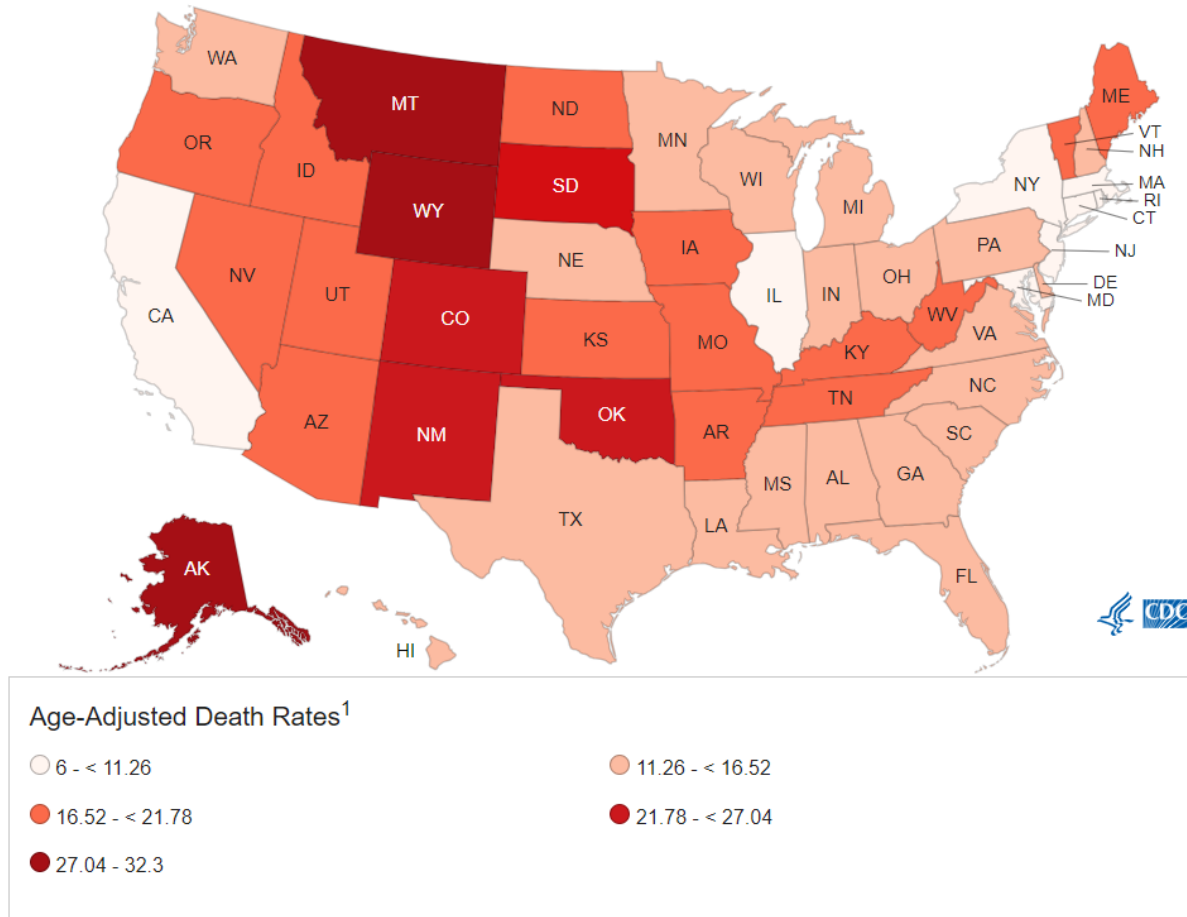
662 Violent Deaths

533 Iowa Residents (81%)

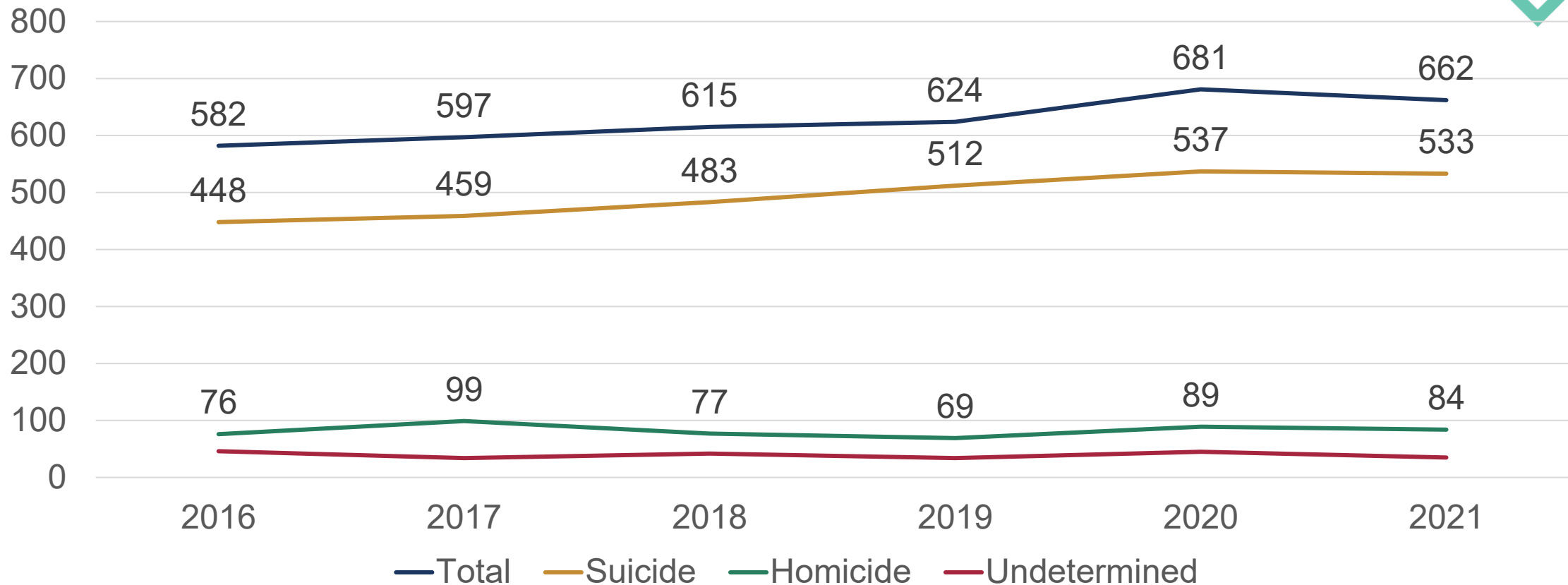
Rate of Suicide Death

16.7 per 100,000 down from 17.0 per 100,000

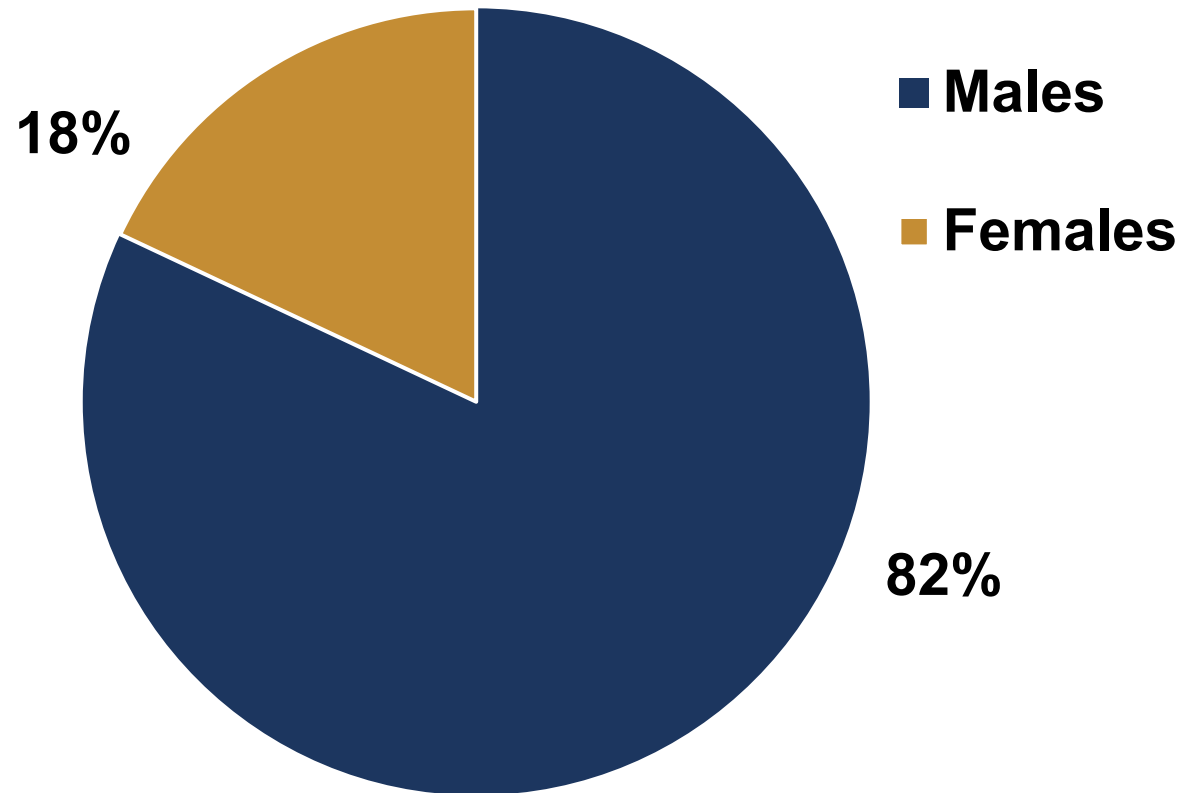
Suicide Mortality by State, 2021



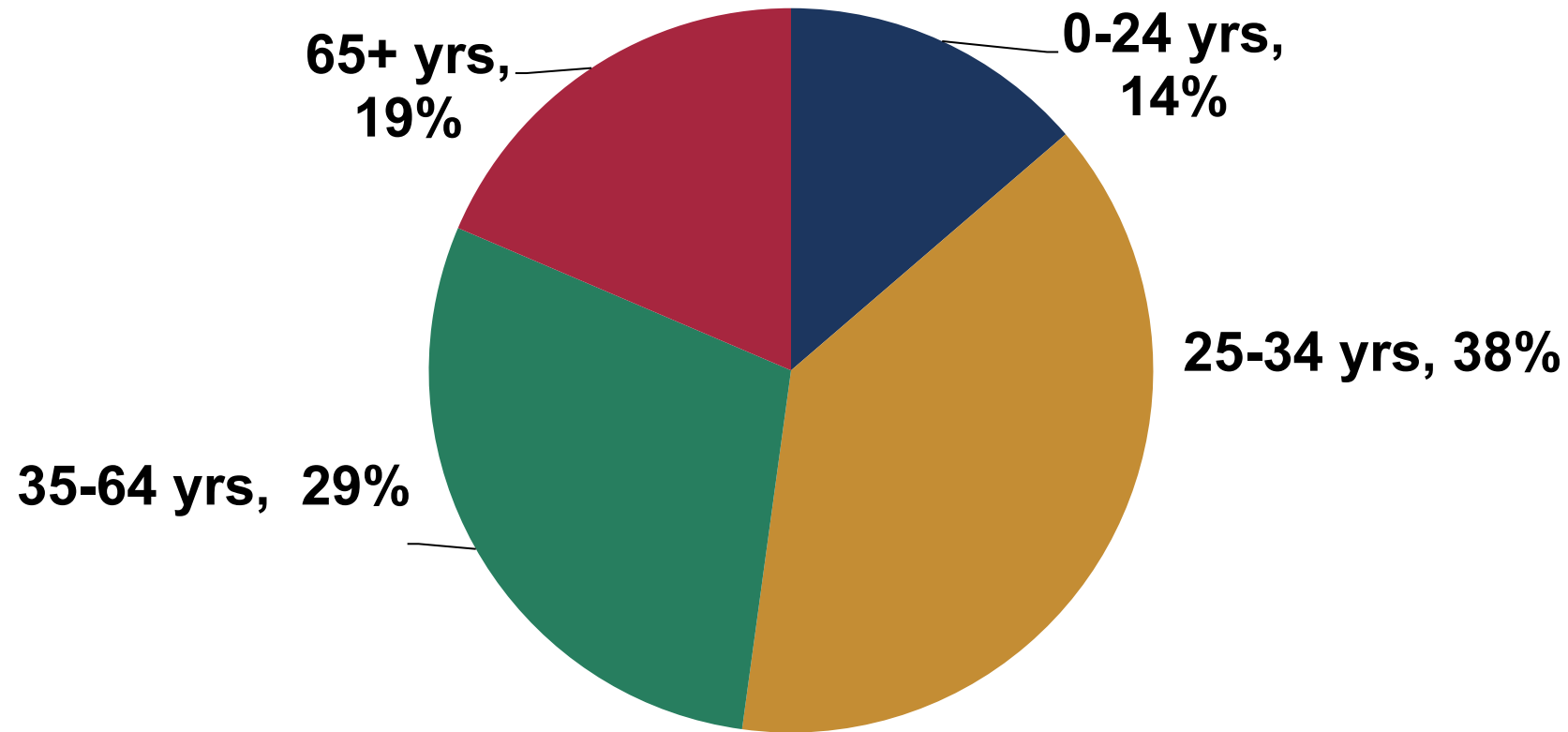
Number of Violent Deaths by Year, IA Residents



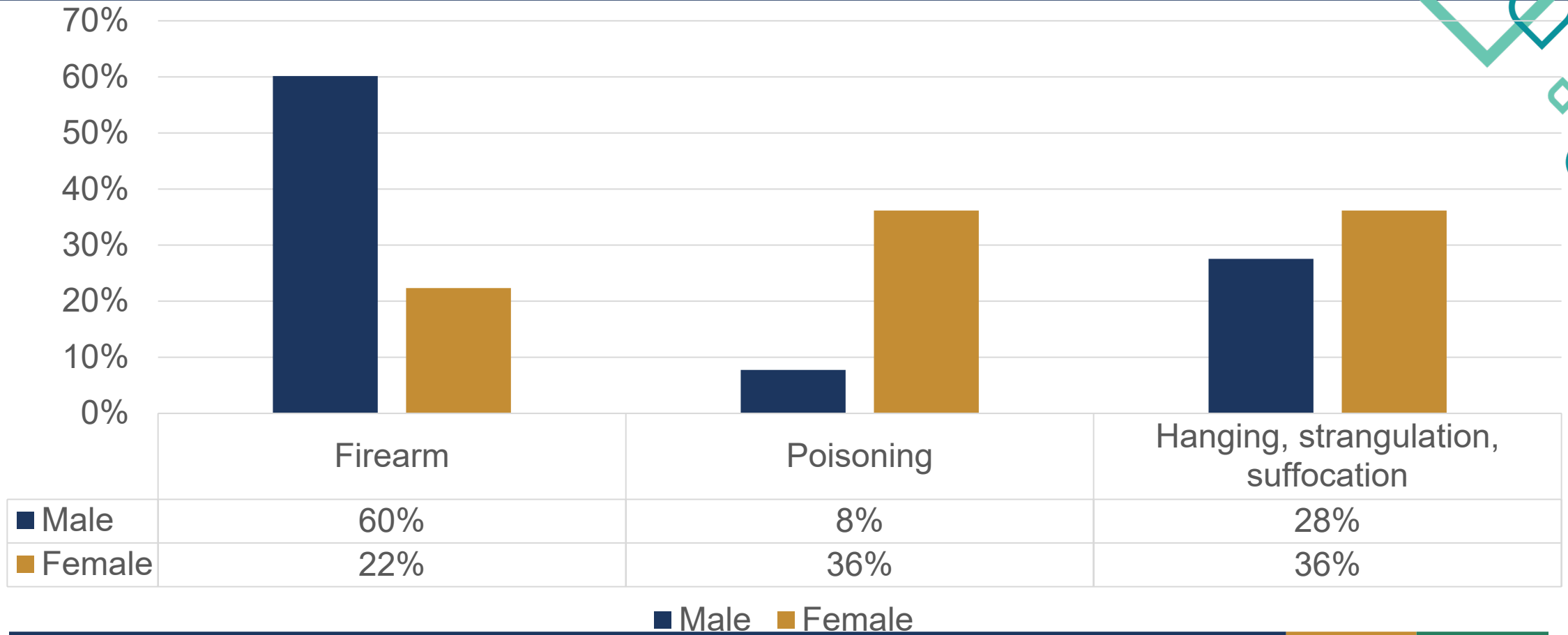
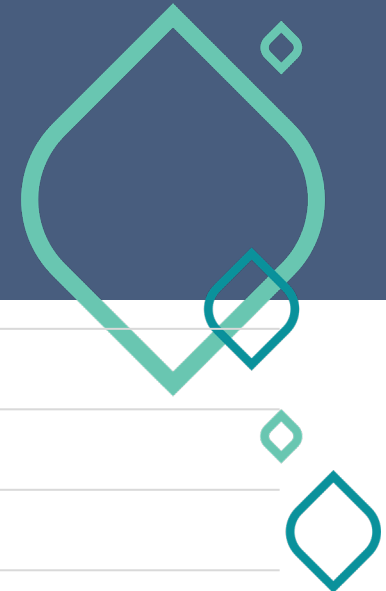
Sex of individuals who died by Suicide, Iowa, 2021



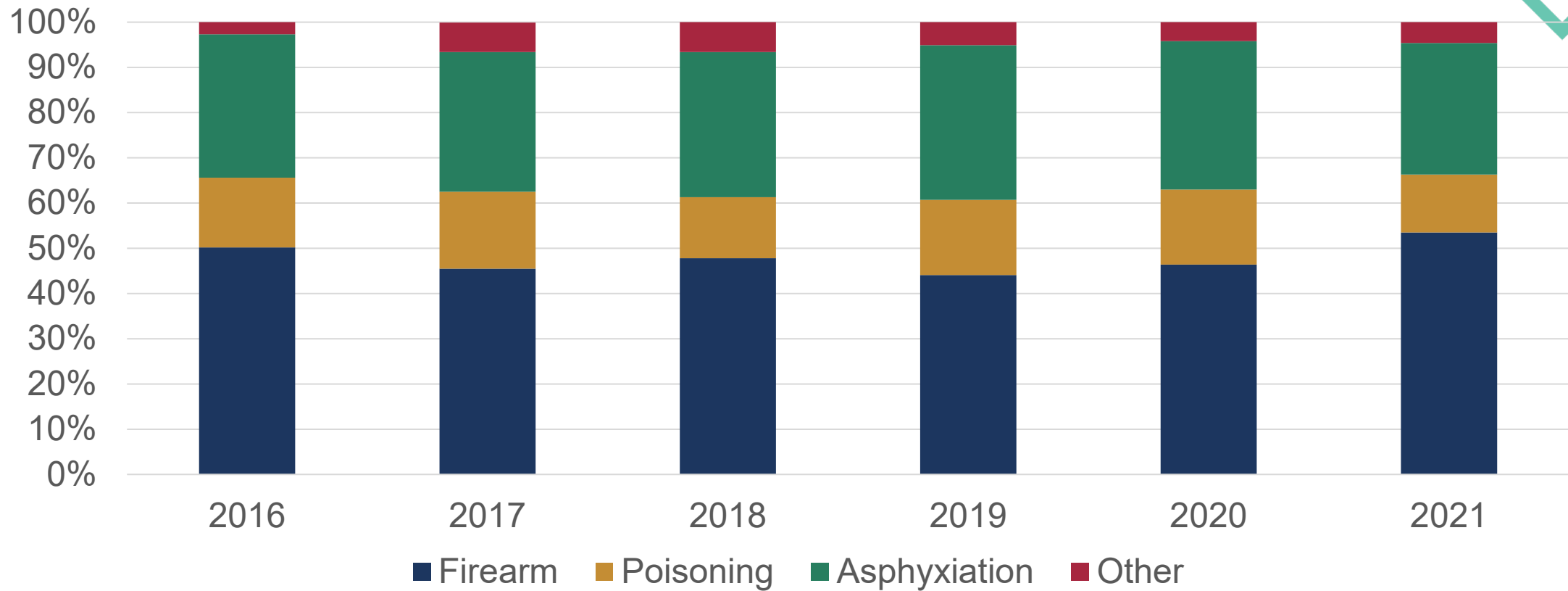
Deaths by Age Group, 2021



Percent Deaths by Sex, 2021



Means by Year



Circumstance by Year

SUICIDE

**Past Suicidal Ideations
Narrative:**

**Past Suicide Attempt
Narrative:**

**History Mental Disorder
Narrative:**

- ☐ Suicide Note Found
- ☐ Copy of Note Obtained
- ☐ Handwriting Sample Obtained

☐ Residence Secured

☐ Alcohol Found at Scene

Drugs Found at Scene:

- ☐ Non-Prescription
- ☐ Prescribed to Decedent
- ☐ Prescribed to Other
- ☐ Illegal

Treated By

Treatment Narrative:

Mental and Physical Health



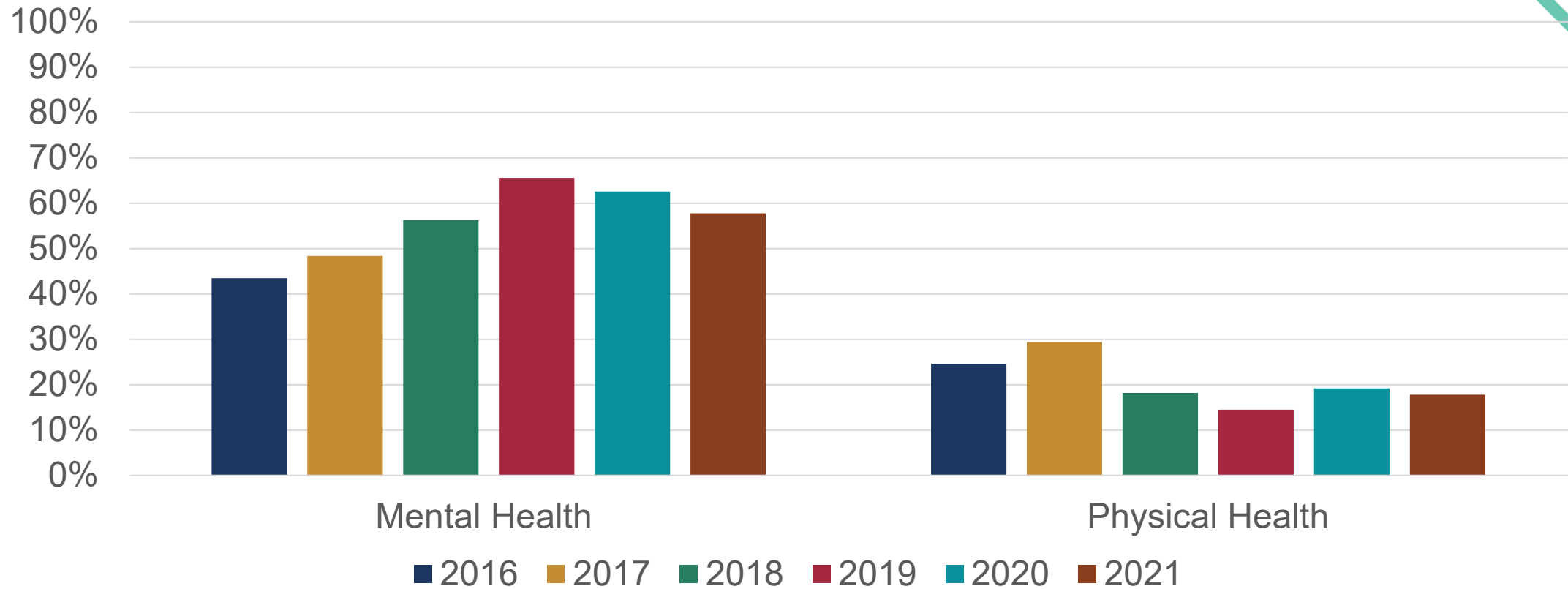
Mental Health

- if they have been identified as currently having a mental health problem
- Diagnosis in DSM or treatment identified

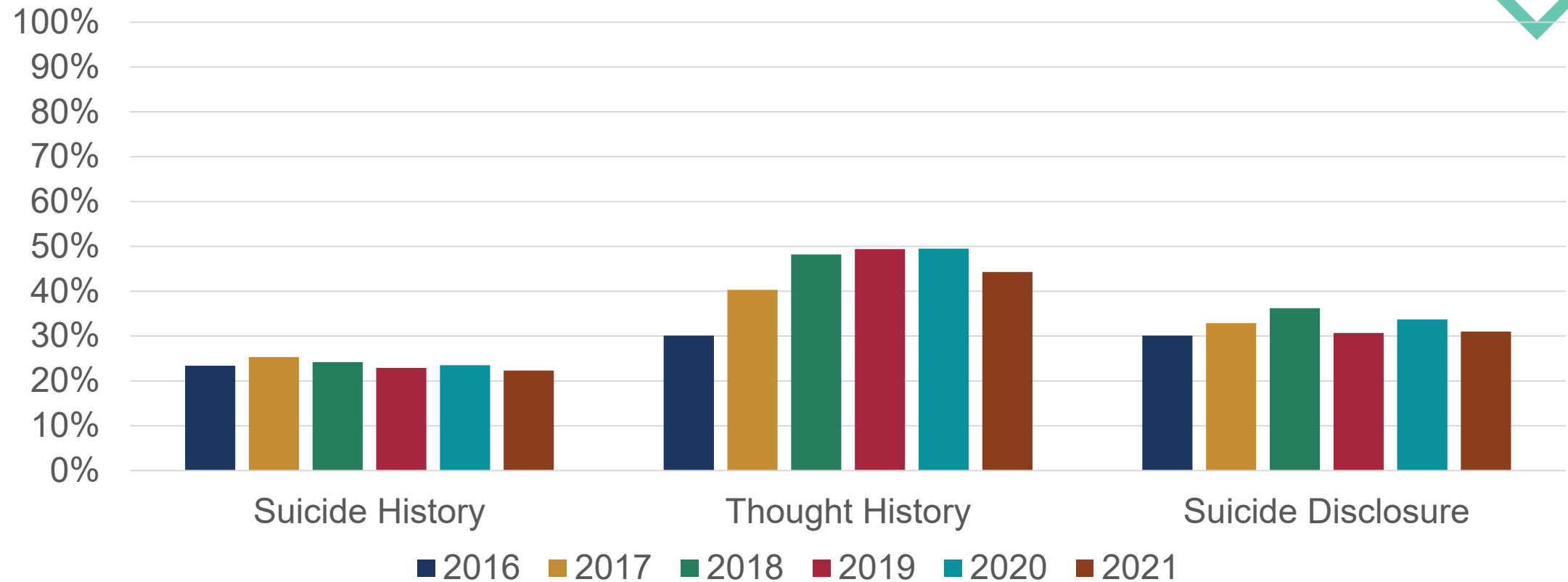
Physical Health

- health problem is noted as contributing to the death
- **Not asked in ME1**

Health Conditions by Year



Suicide History



SUICIDE

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Treated By

Treatment Narrative:

Alcohol and Substance Use



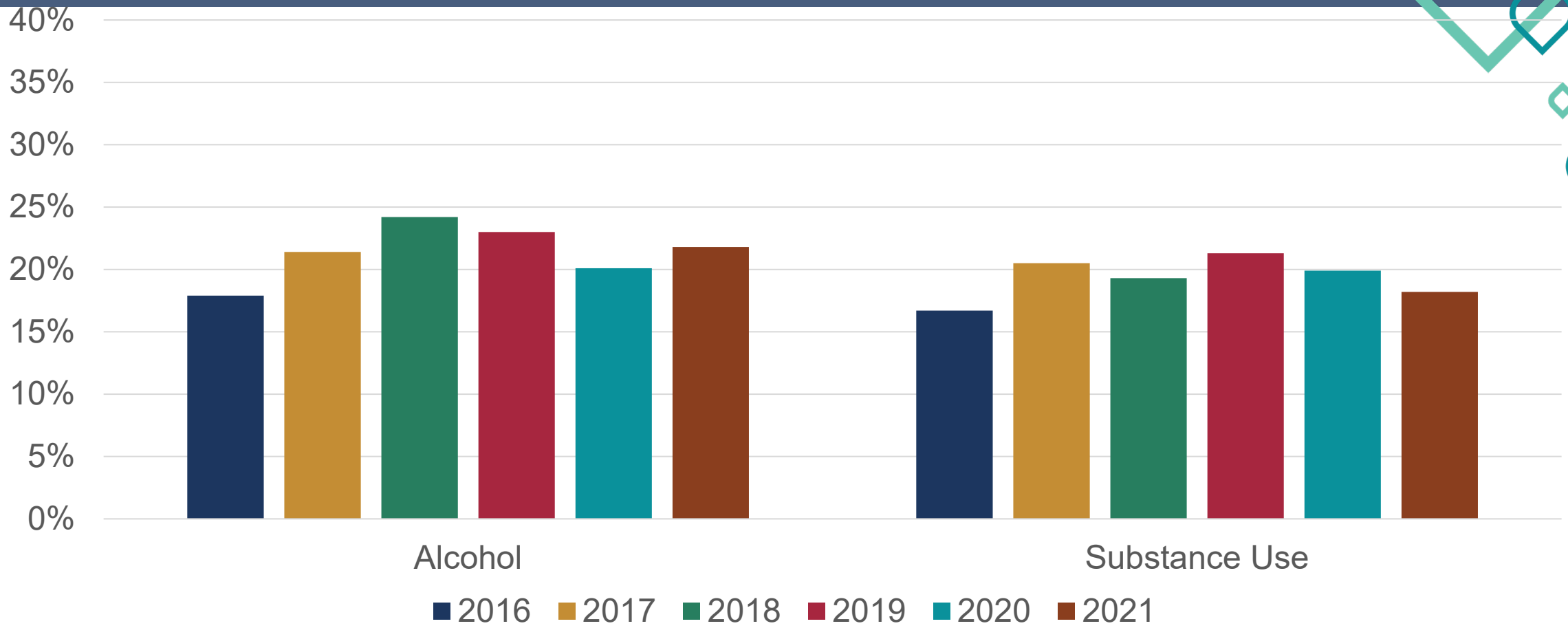
Alcohol

- Person has alcohol dependence or alcohol problem
- **Not asked in ME1**

Substance Use

- Person has a non-alcohol related substance abuse problem.
- **Not asked in ME1**

Alcohol and Substance Use



Interpersonal Circumstances



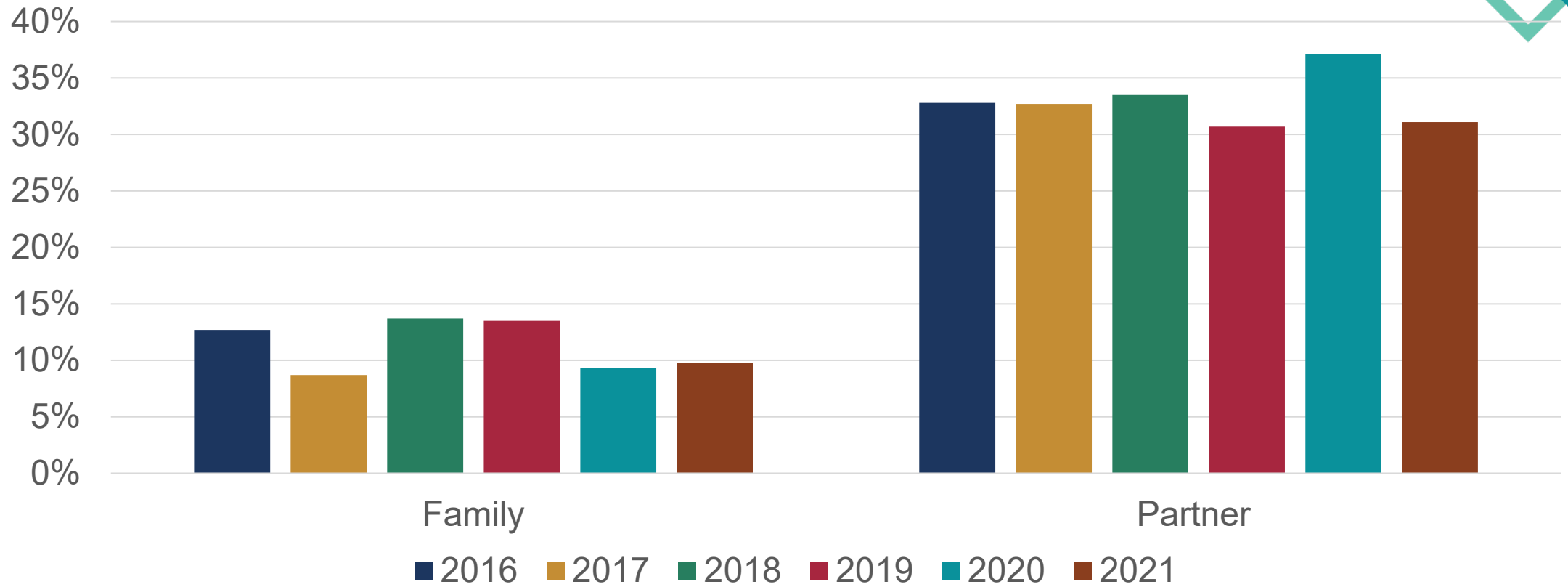
Family

- Relationship problems with a family member that appear to have contributed to the death
- Does not include partner
- **Not asked in ME1**

Intimate partner

- Problems with a current or former intimate partner appear to have contributed to the suicide or undetermined death
- **Not asked in ME1**

Interpersonal



Economic and Legal Circumstances



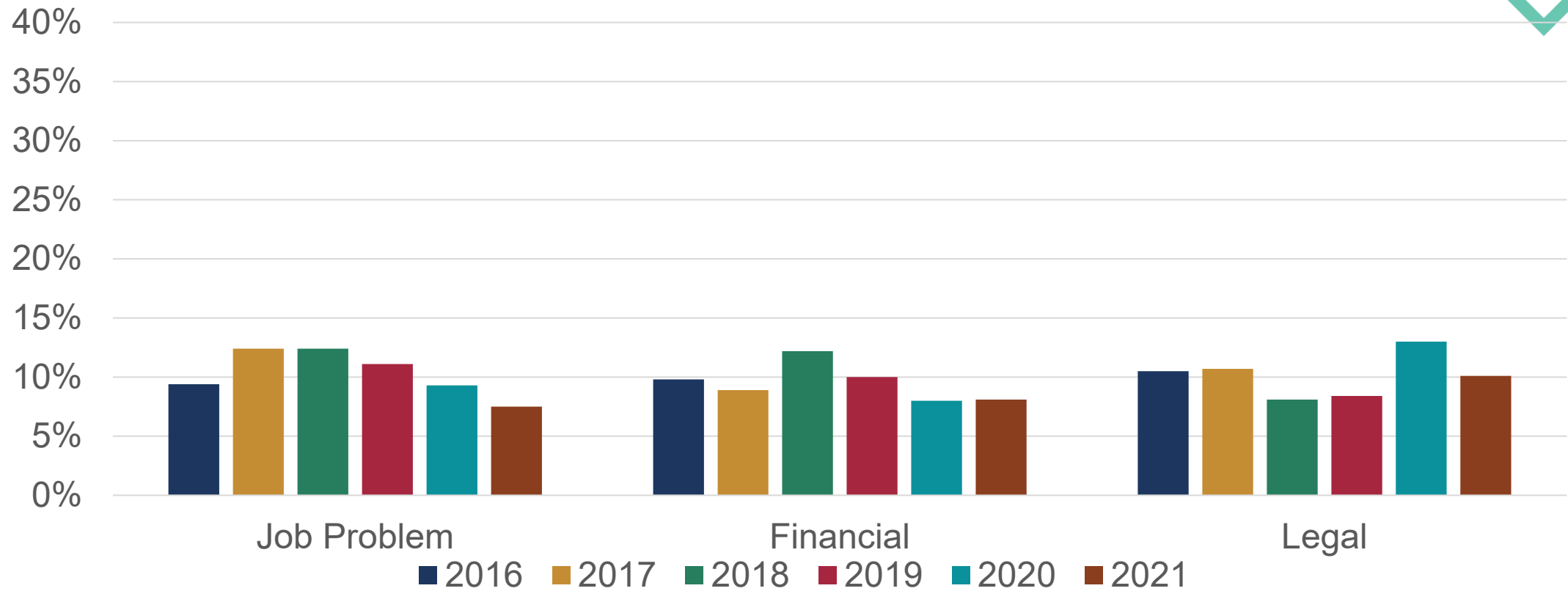
Financial & Job

- Bankruptcy, overwhelming debts, or foreclosure of a home or business, and this appears to have contributed to the death.
- Tensions with a co-worker, poor performance reviews, increased pressure, or was having a problem with joblessness
- **Not asked in ME1**

Criminal legal problem

- Recent or impending arrest, law enforcement pursuit, impending criminal court date
- **Not asked in ME1**

Economic or Legal Stressor



Medical Examiner Report Data Quality

Firearm Variables



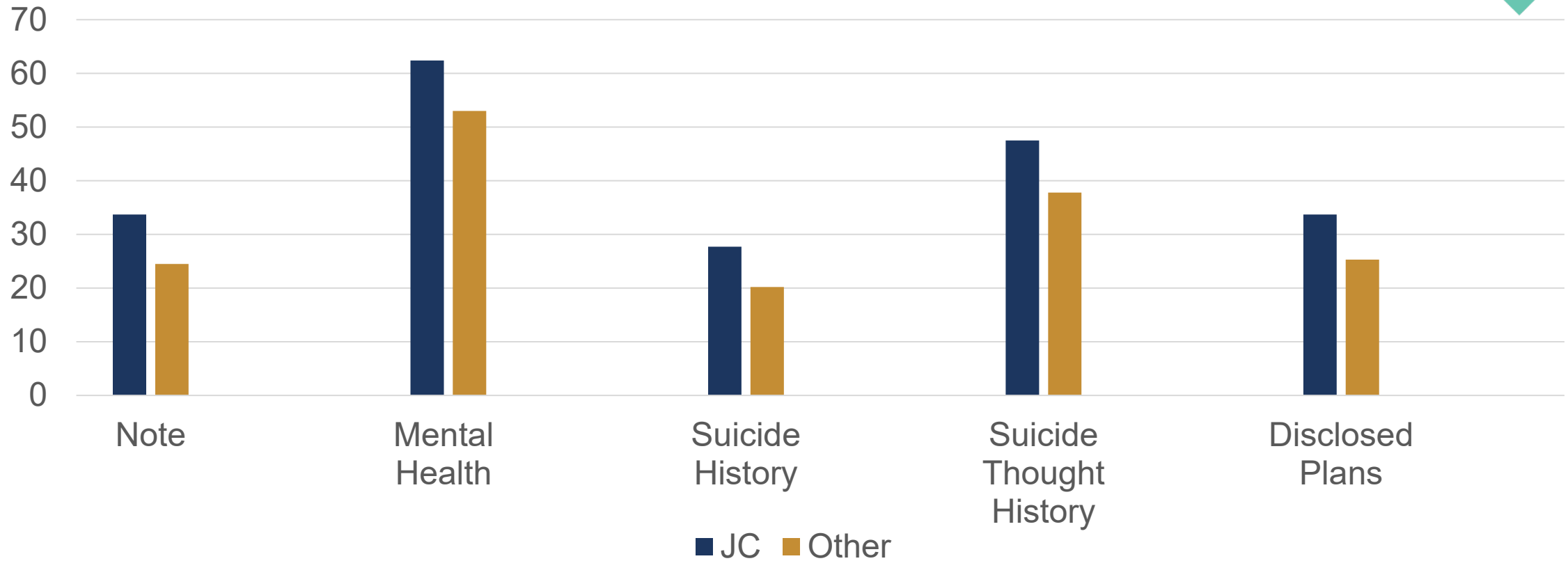
48% of all Suicides involved a firearm

Owner Unknown 28% (Other) vs 18% (JC)

Make Unknown 27% (Other) vs <5% (JC)

High missingness of Stored Loaded and Stored Locked for all counties (>80%)

ME1 Components



Sexual Orientation



Self-identification in IAVDRS

<1% of people who died by suicide identified as lesbian, gay, bisexual

“Did ____ consider themselves to be heterosexual, gay or lesbian, or bisexual?”

“How did ____ identify: heterosexual, gay or lesbian, or bisexual?”

No One Knows How Many L.G.B.T.Q. Americans Die by Suicide

Death investigators in Utah are among a handful of groups trying to learn how many gay and transgender people die by suicide in the United States.

<https://www.nytimes.com/2023/06/01/health/lgbtq-suicide-data.html>

Steps to Improve data quality

- IAVDRS provide training on data elements
- Communicate barriers in collecting information to IAVDRS
- Push for complete ME1 information



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