



KANSAS HEALTH INSTITUTE

# Suicide in the Sunflower State

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An Update from the Kansas Health Institute

August 24, 2023

# Hello!

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# Who We Are

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- Nonprofit, nonpartisan educational organization based in Topeka.
- Established in 1995 with a multi-year grant by the Kansas Health Foundation.
- Committed to convening meaningful conversations around tough topics related to health.



# Our Vision & Mission

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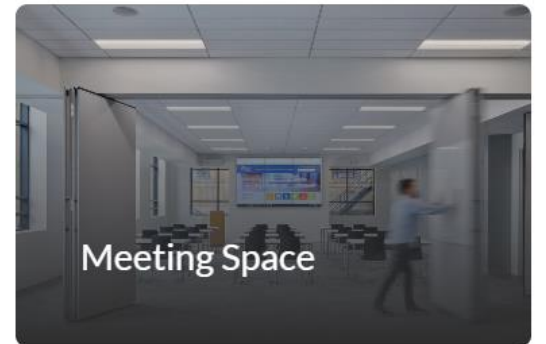
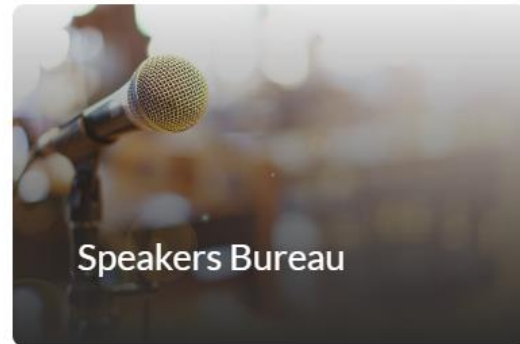
**Healthier Kansans through effective policy.**

Improve the health of all Kansans through nonpartisan research, education and engagement that support effective policymaking.



# Our Services

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<https://www.khi.org/services/>



# Background

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## Our Recent Work

- Suicide Among Adolescents and Youths in Kansas ([2022](#))
- Youth and Young Adult Mental Health: Challenges & Opportunities in the Sunflower State ([2022](#))
- Suicide in Rural and Frontier Kansas – Virtual Event ([2021](#))
- State Efforts to Prevent Suicide in Rural Communities ([2021](#))
- Federal Efforts to Prevent Suicide in Rural Communities ([2021](#))
- Urban-Rural Differences in Suicide Rates and Leading Means in Kansas ([2021](#))
- Rising Stress-Related Deaths in Kansas ([2018](#))
- Deaths by Suicide: Disparities in the Sunflower State ([2018](#))

## Upcoming

- 988 Suicide & Crisis Lifeline – Year 1 Impacts Hybrid Convening ([September 7, 2023](#))



# Agenda

## National Perspective

- Trend in Suicide Rates Since 2000
- Disparities in Suicide
- Provisional 2022 Data



## Kansas Perspective

- Adolescent & Youth Suicide Rates
- Urban-Rural Suicide Rates

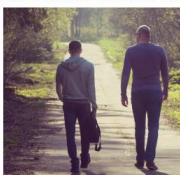
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### URBAN-RURAL DIFFERENCES IN SUICIDE RATES AND LEADING MEANS IN KANSAS

**Introduction**

Suicide was the ninth leading cause of death in Kansas in 2019 and the 10th leading cause of death in the U.S., and the suicide rates have been increasing. In both Kansas and the U.S., discharge of firearms has been the leading means of suicide. The suicide rate in Kansas, 15.2 per 100,000 population (age-adjusted to the U.S. 2000 standard population), was the 16th highest in the country in 2019. Nationally, suicide rates ranged from 8.0 per 100,000 in New Jersey to 23.3 per 100,000 in Wyoming. While rising suicide rates across the nation have drawn attention, urban-rural differences also have been noticed. Rural areas have experienced a higher suicide rate than urban areas, regardless of age, sex, race or ethnicity.

The majority (89 of 105) of counties in Kansas are considered rural by population density, including Frontier, Rural and Densely-Settled Rural counties, according to the peer county group classification used by the Kansas Department of Health and Environment. This issue brief highlights how suicide rates and the means of suicide have changed over time and have varied across Kansas, with a close look at differences by rurality. A better understanding of urban-



rural differences in rates and means of suicide could help devise unique policies and programs to meet the needs of local communities.

#### Rising Suicide Rates in Kansas

#### Increase in Rural Counties Outpaces Non-Rural

Over the past 20 years, the rate of suicide across Kansas has steadily risen, from 12.5 per 100,000 population in 2000-2004 to 18.1 in 2015-2019 (Figure 1, page 2). This translates

**KEY POINTS**

- ✓ The suicide rate in Kansas was nearly 1.5 times higher in 2015-2019 than in 2000-2004 (18.1 compared to 12.5 per 100,000), and in 2019 was the 16th highest in the country.
- ✓ The suicide rate increased gradually starting in 2000, then picked up pace between 2007-2011.
- ✓ While Kansas counties of all population densities saw an increase in suicide rates over the past 20 years, the increase in Frontier and Rural counties outpaced that
- ✓ In Densely-Settled Rural, Semi-Urban and Urban counties (54.7 and 59.4 percent increases compared to 45.2, 40.3 and 45.4 percent increases, respectively).
- ✓ Since 2011-2015, the rate of suicide by discharge of firearms in Frontier counties has been significantly higher than other county groups.
- ✓ In 2015-2019, two-thirds (66.8 percent) of suicides in Frontier counties occurred by discharge of firearms (15.3 out of 22.9 per 100,000).

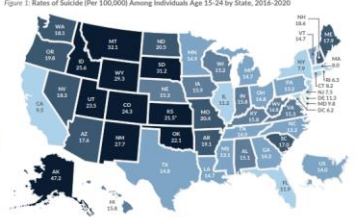
**2021** KBH/21-41

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### SUICIDE AMONG ADOLESCENTS AND YOUTHS IN KANSAS

Suicide was the second leading cause of death for Kansas youths age 15-24 in 2016-2020, and the 5-year combined number of Kansas youth suicide deaths increased from 271 in 2001-2005 to 442 in 2016-2020. Kansas experienced the 10th highest youth suicide rate in the nation in 2016-2020 (13.0 to 21.3 per 100,000 population) (Figure 1).

For both Kansas and the U.S. overall, youth suicide rates increased steadily from 2001 to 2020, but rose more rapidly beginning in 2014-2018. In the past two decades, the youth suicide rate in Kansas has been consistently higher than the U.S. overall. The 63.8 percent increase in the youth suicide rate from 2001-2005 to 2016-2020 (13.0 to 21.3 per 100,000 population) in



**KEY POINTS**

- ✓ Kansas had the 10th highest suicide rate in the nation for youths age 15-24 and the 11th highest for early adolescents age 10-14 in 2016-2020.
- ✓ The Kansas youth suicide rate increased 63.8 percent, from 13.0 per 100,000 population in 2001-2005, to 21.3 per 100,000 in 2016-2020, which outpaced the 45.1 percent increase in the U.S. overall (9.9 to 14.0 per 100,000).
- ✓ Suicide was the second leading cause of death for Kansas early adolescents age 10-14 and youths age 15-24 in 2016-2020.
- ✓ Six in 10 (60.9 percent) male youths who died by suicide in 2016-2020 died by discharge of firearms, while firearms accounted for a quarter (24.2 percent) of female youth suicides in the same period.

**2022** KBH/22-15



# National Perspective



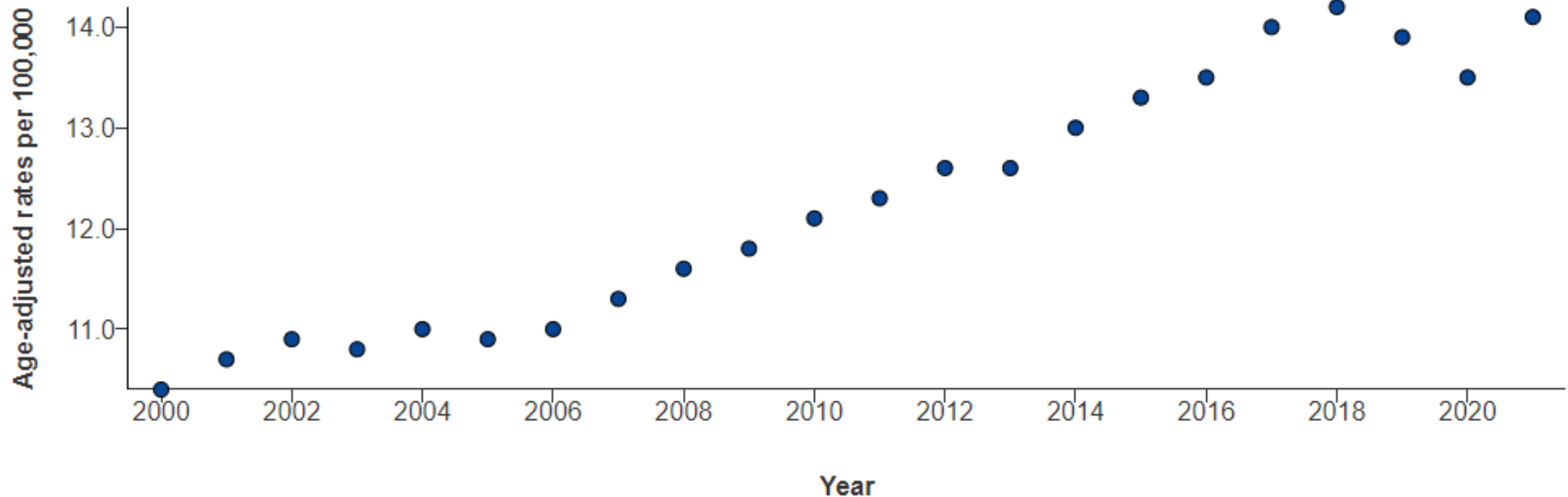
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# National Trend in Suicide Rates, 2000-2021

Suicide rates increased 37% between 2000-2018 and decreased 5% between 2018-2020. However, rates nearly returned to their peak in 2021.



# National Suicide Findings, 2021

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## In 2021:

**48,183 people**  
died by suicide in  
the United States.

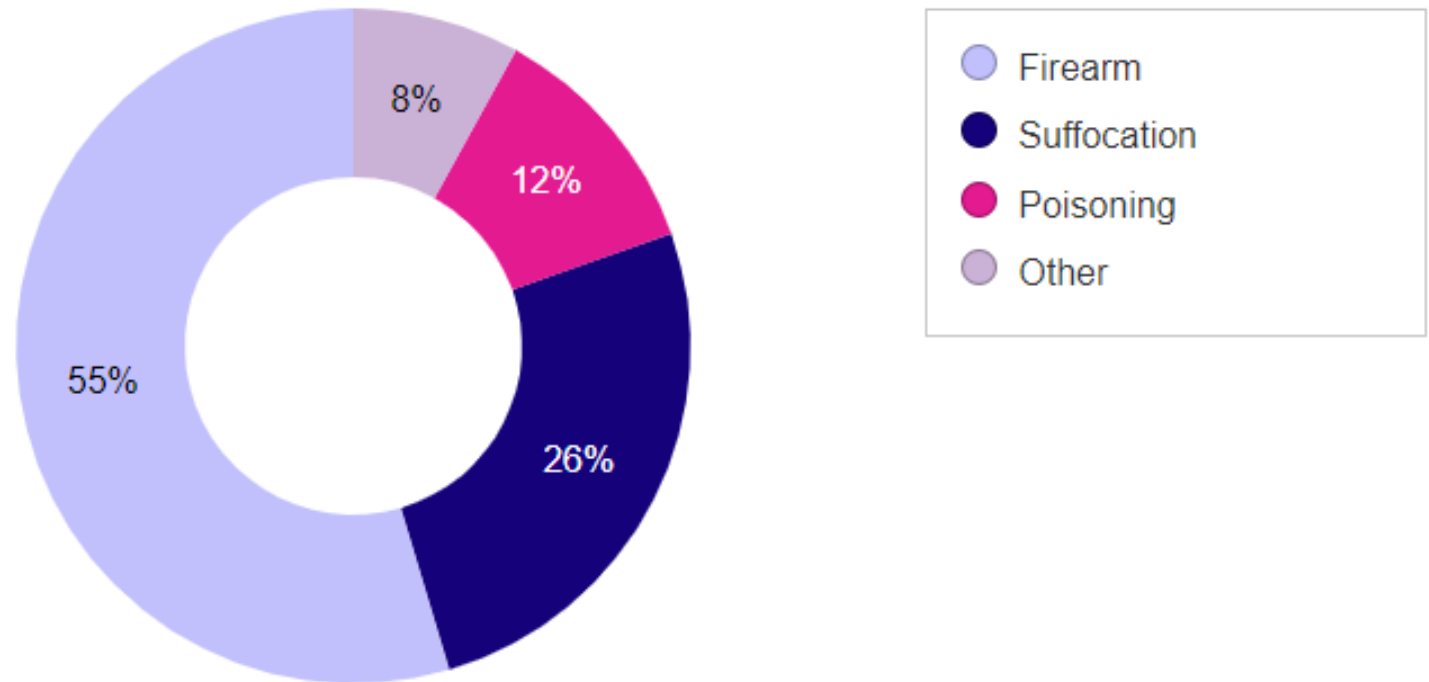
That is **1 death**  
every **11 minutes**.

- ➔ **12.3 million adults** seriously thought about suicide
- ➔ **3.5 million adults** made a plan
- ➔ **1.7 million adults** attempted suicide

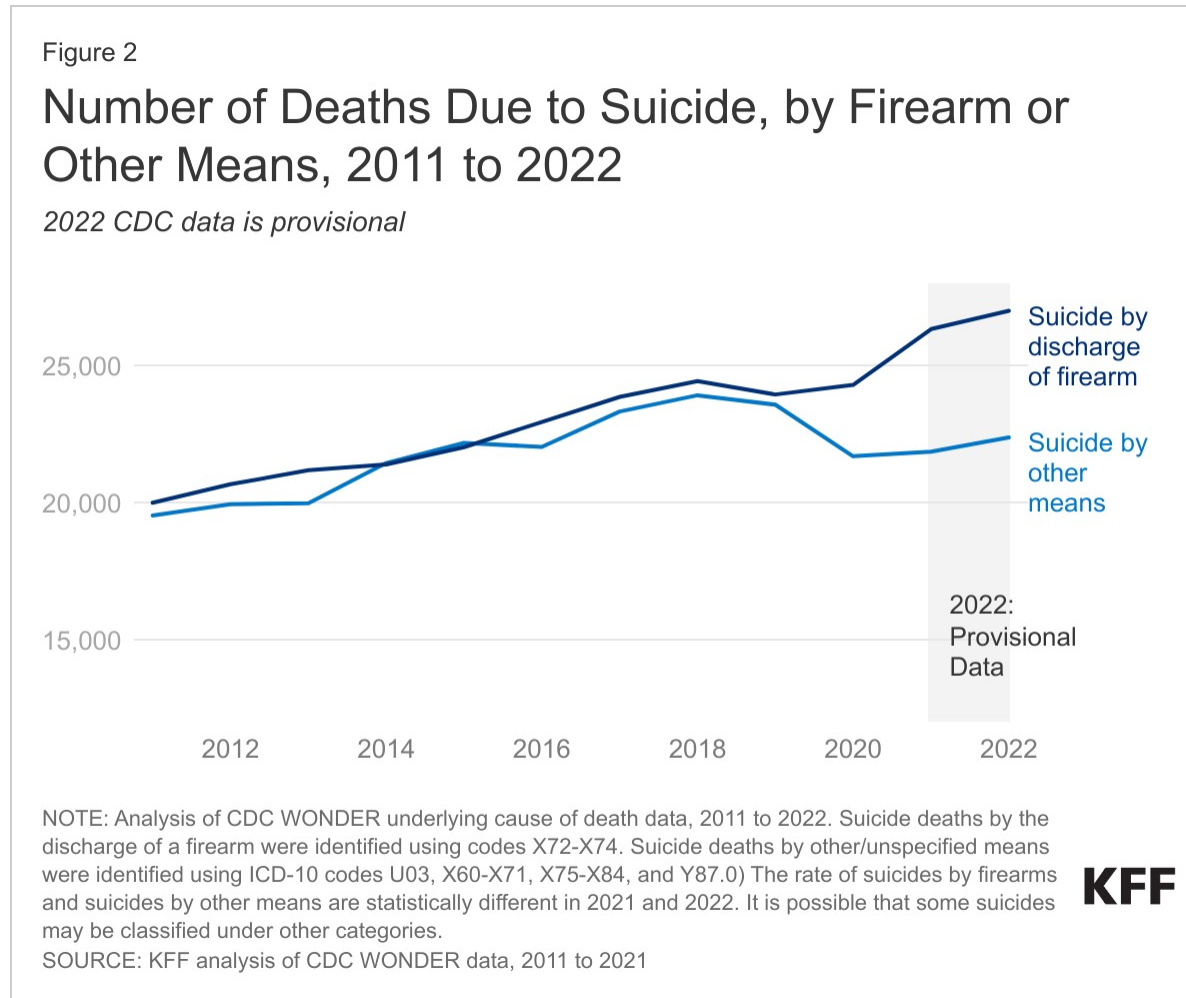


# National Suicide Rates by Means, 2021

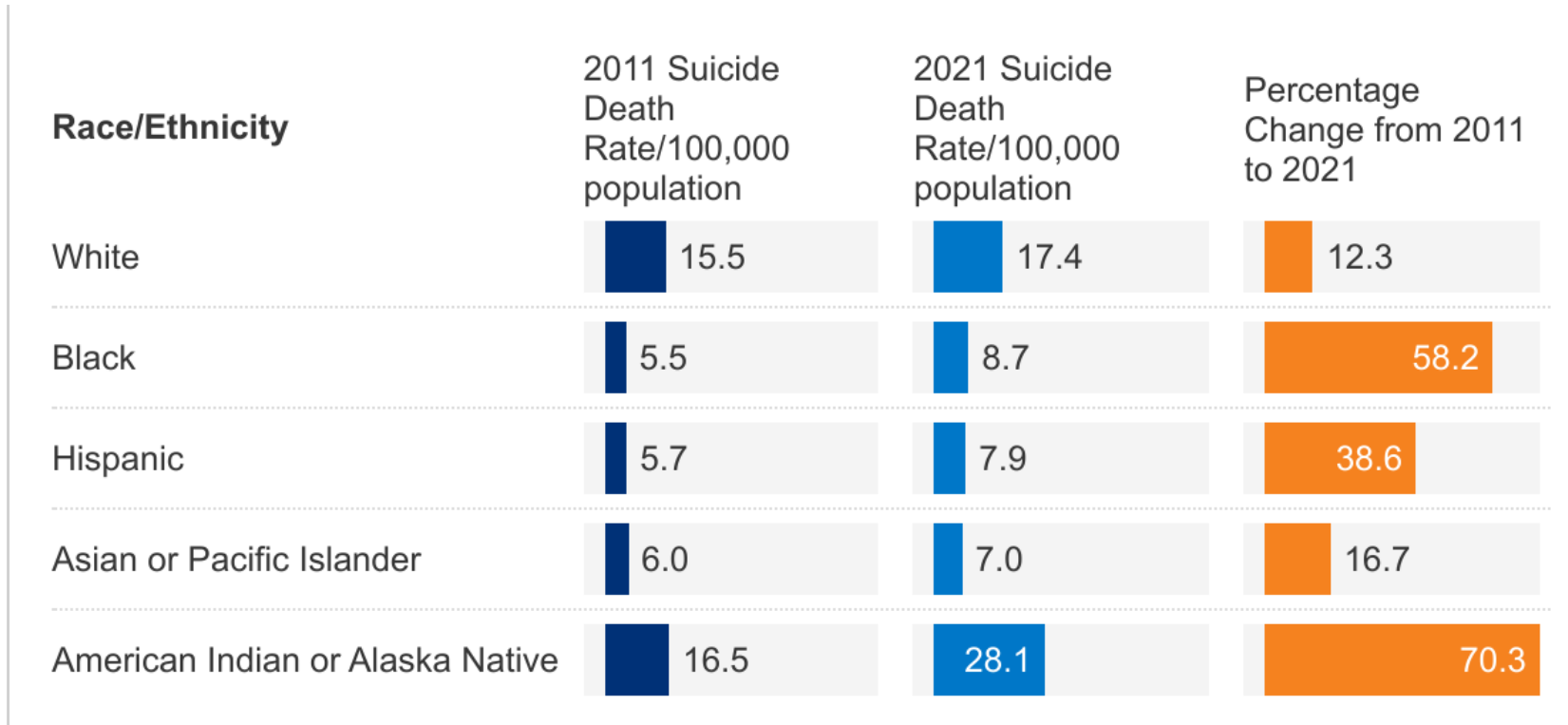
Firearms are the most common method used in suicides. Firearms are used in more than 50% of suicides.



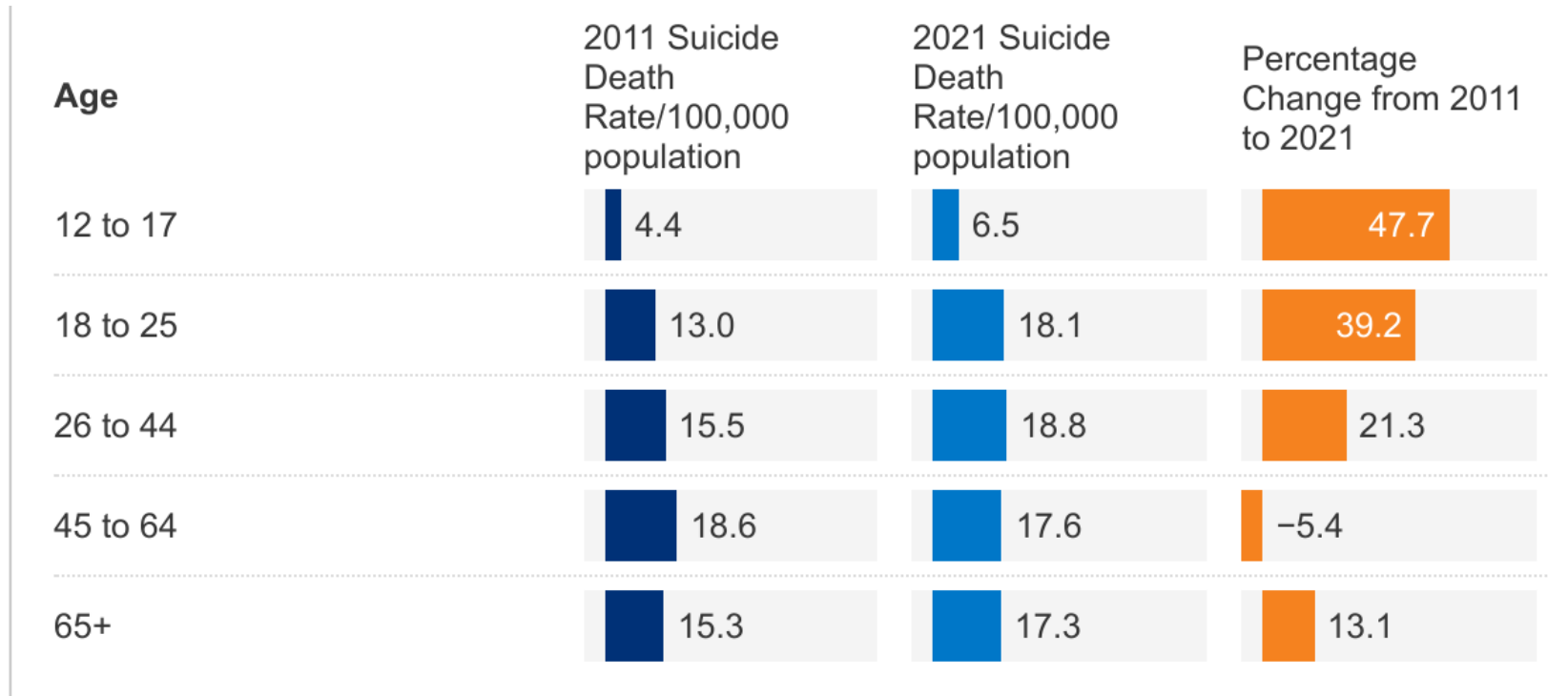
# National Suicide Rates, By Means, 2011-2022 (Provisional Data)



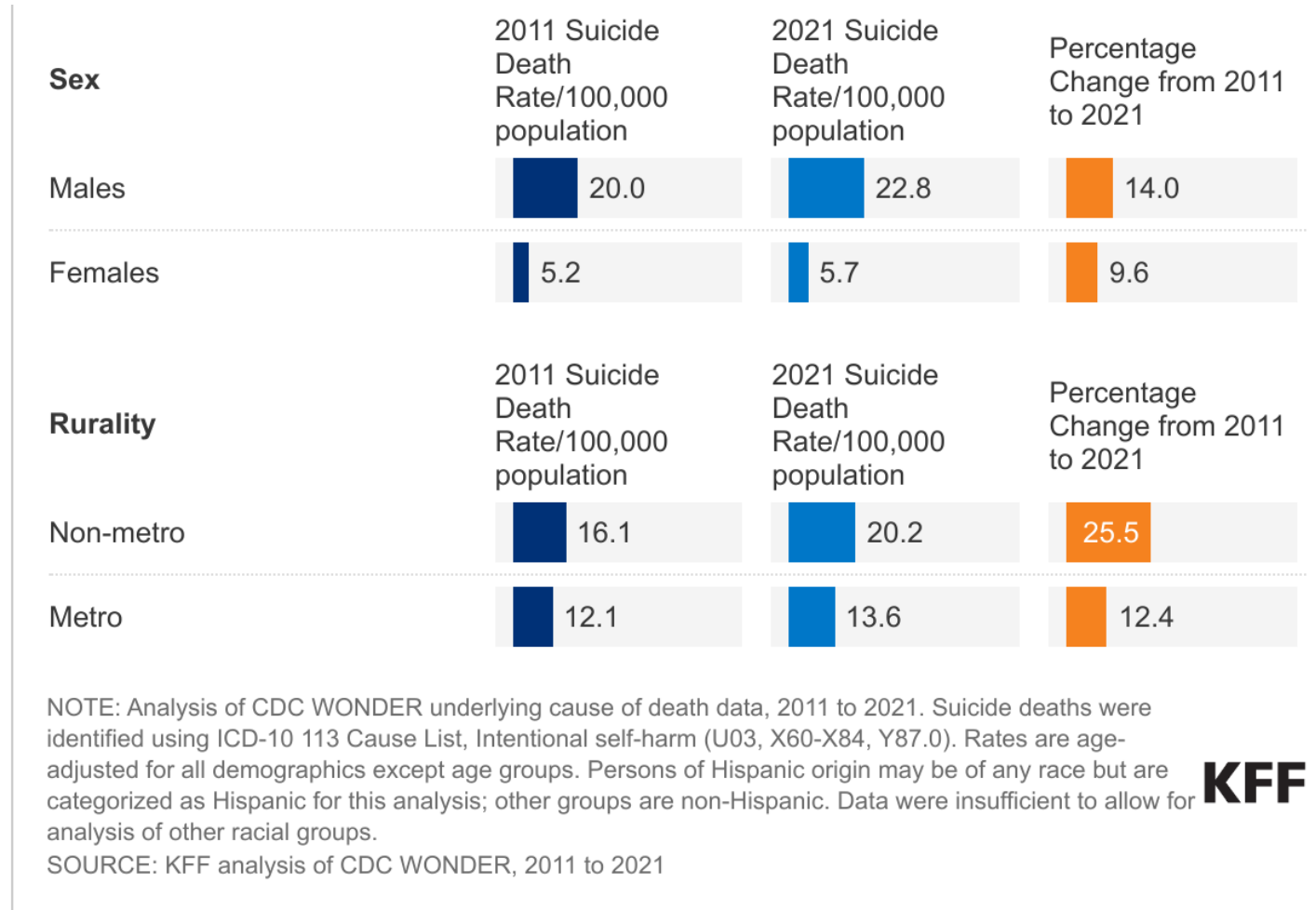
# National Suicide Rates, by Race & Ethnicity, 2011-2021



# National Suicide Rates, by Age, 2011-2021



# National Suicide Rates, by Sex and by Rurality, 2011-2021

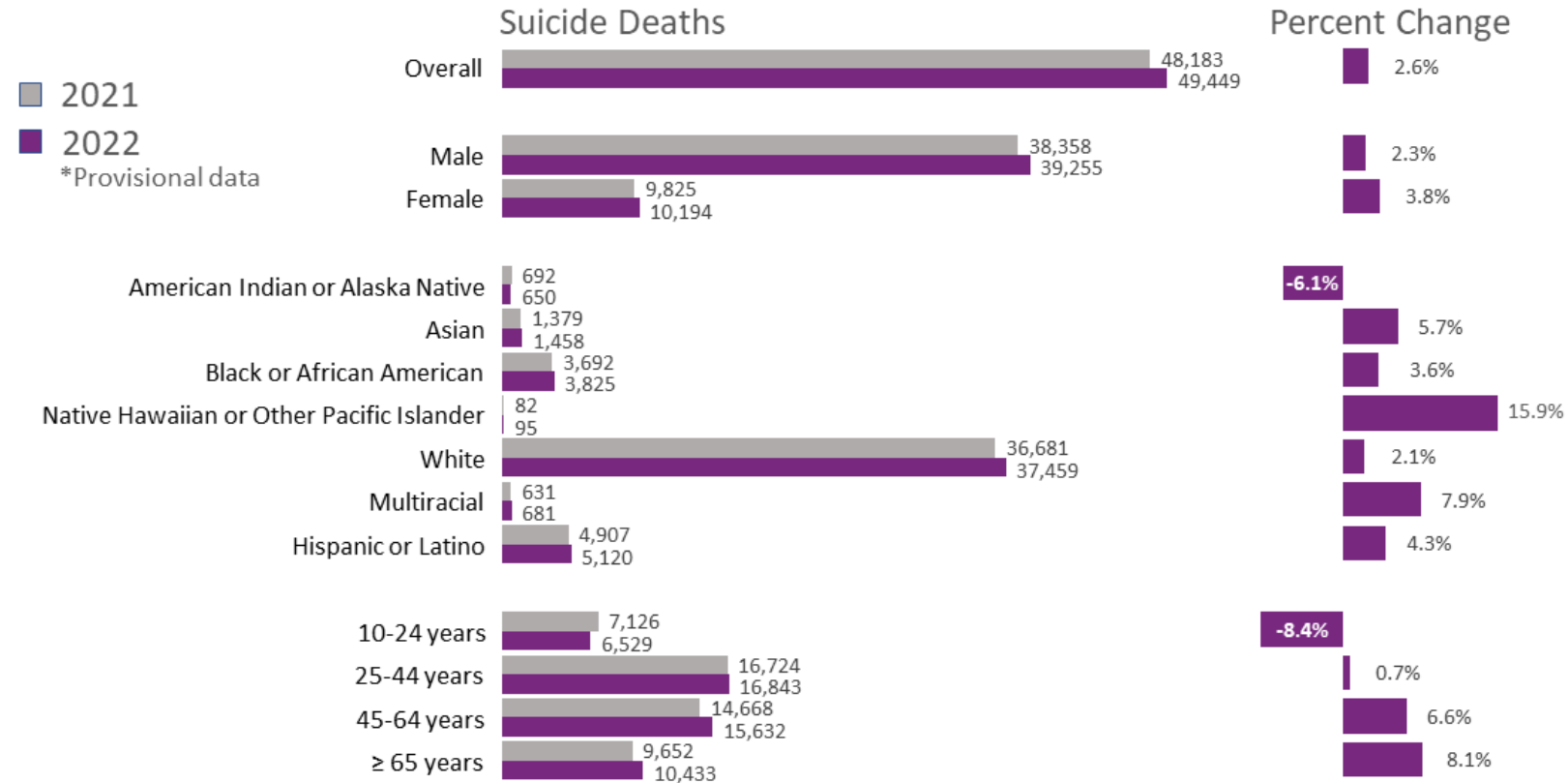


**KFF**



# National Suicide Rates, by Population, 2021-2022 (Provisional Data)

Overall, the number of deaths by suicide **increased** 2.6% from 2021 to 2022\*, but **decreased** among American Indian/Alaska Native people and Youth





# Disparities in Suicide Rates



## Veterans

Veterans have an adjusted suicide rate that is 57.3% greater than the non-veteran U.S. adult population.



## Tribal Populations

Suicide is the 9th leading cause of death among AI/AN people.



## Adults

Adults (35-64 years) account for almost half of all suicides in the U.S.



## LGB Youth

High school students identifying as lesbian, gay, or bisexual attempt suicide at a rate five times higher than heterosexual students.



## Certain Industries & Occupations

Suicide rates are highest among men working in certain industries (Mining, Quarrying, and Oil and Gas Extraction) and occupations (Construction and Extraction).



## People with Disabilities

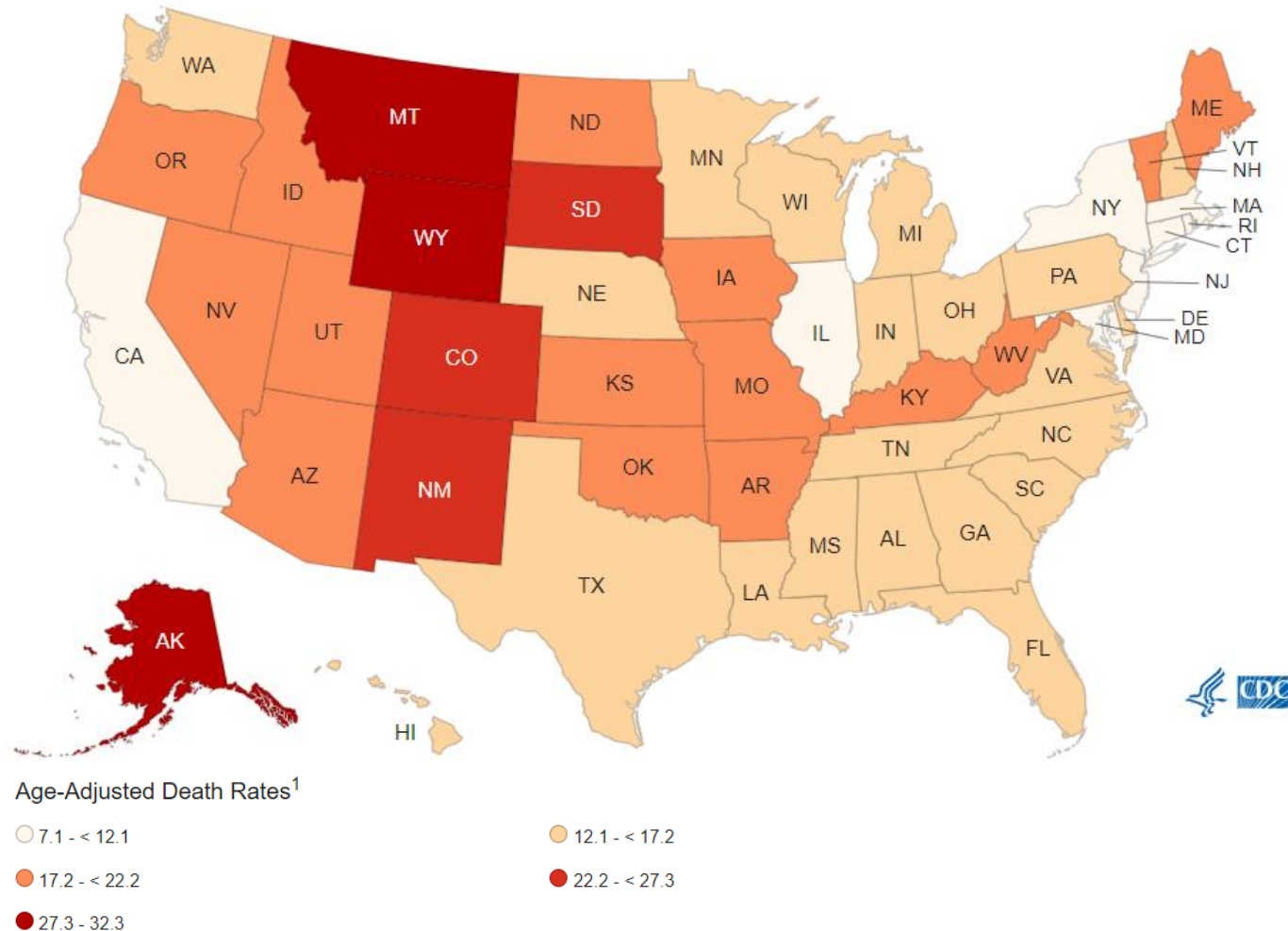
Adults with disabilities are three times more likely to report suicidal ideation compared to adults without disabilities.



# Suicide Rates by State, 2021

## Ranks (Age-Adjusted rate per 100,000 population)

1. New Jersey (7.1)
20. Nebraska (15.0)
30. Iowa (17.5)
32. Missouri (18.7)
- 33. Kansas (19.4)**
40. Arkansas (20.6)
44. Oklahoma (22.1)
45. Colorado (22.8)
50. Wyoming (32.3)



# Kansas Perspective



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# Urban-Rural Differences in Suicide Rates

## Methods

- Kansas Information for Communities (KDHE) data from 2000-2019
- Age-adjusted to 2000 U.S. standard population
- Rate per 100,000
- 5-year average rates
- KDHE Peer Groups

KDHE KIC Link: [http://kic.kdheks.gov/death\\_new.php](http://kic.kdheks.gov/death_new.php)

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### URBAN-RURAL DIFFERENCES IN SUICIDE RATES AND LEADING MEANS IN KANSAS

**ISSUE BRIEF**

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- ✓ Since 2011-2015, the rate of suicide by discharge of firearms in Frontier counties has been significantly higher than other county groups.
- ✓ In 2015-2019, two-thirds (66.8 percent) of suicides in Frontier counties occurred by discharge of firearms (15.3 out of 22.9 per 100,000).

**2021**

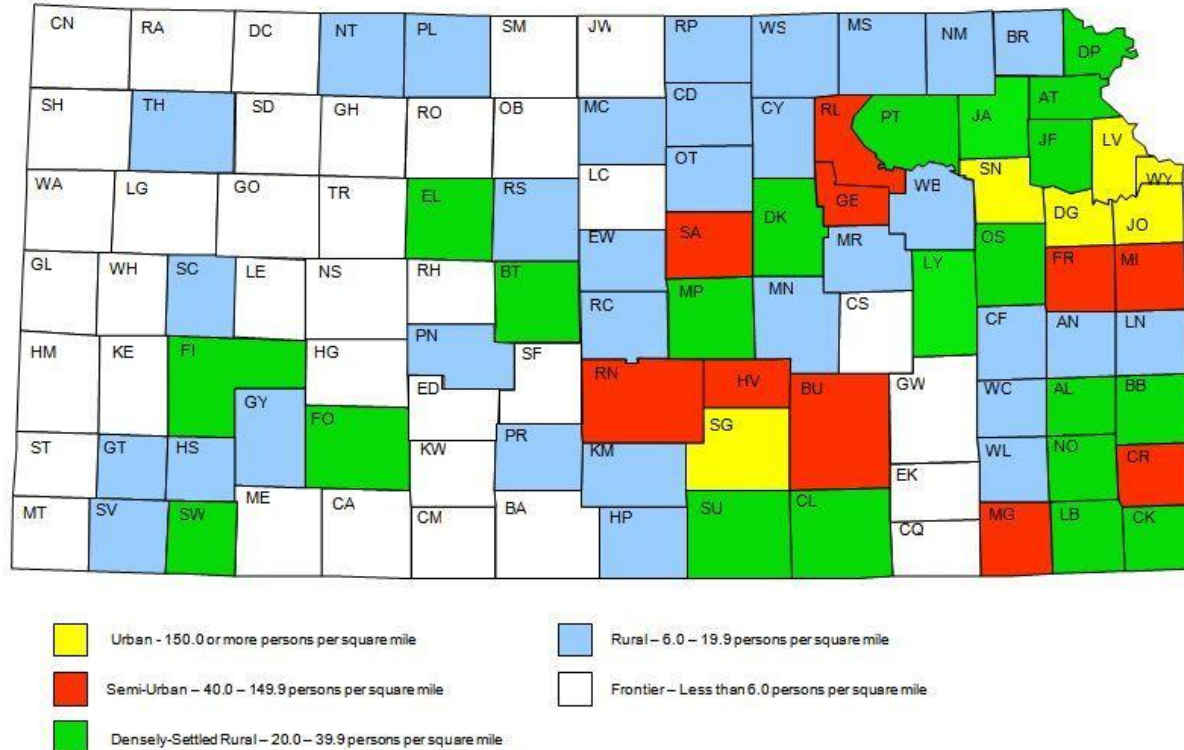
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8/30/21-43



# KDHE Peer Groups Map

**Kansas Peer County Groups**

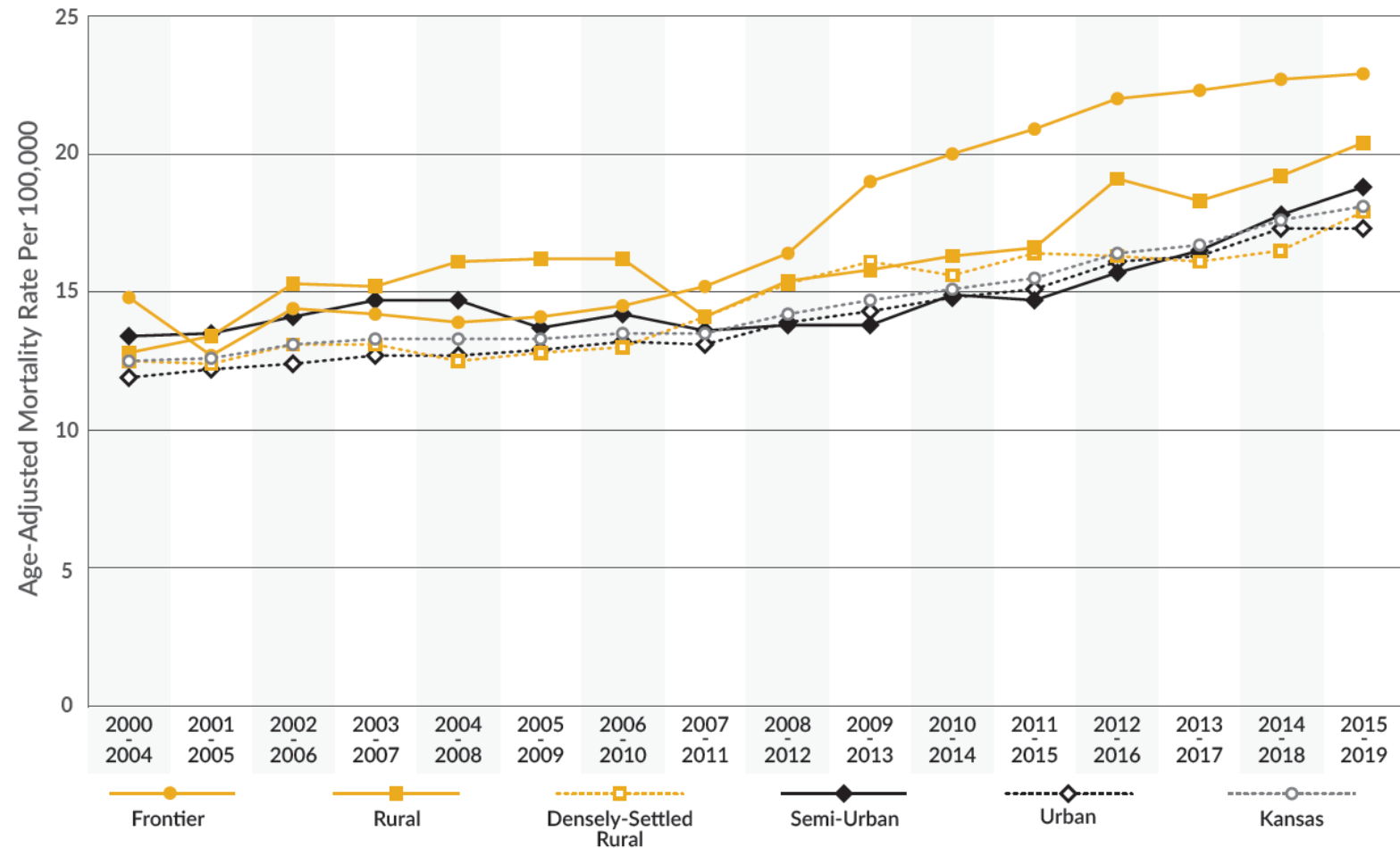


Source Data - 2010 US Census Data  
 Prepared by Bureau of Epidemiology and Public Health Informatics  
 Corrected 5-29-2012 to reflect Doniphan County as Densely-Settled Rural



# Suicide Rates by Peer Group, 2000-2019

Figure 1. Suicide Rate by Peer County Group, Kansas, 2000-2019

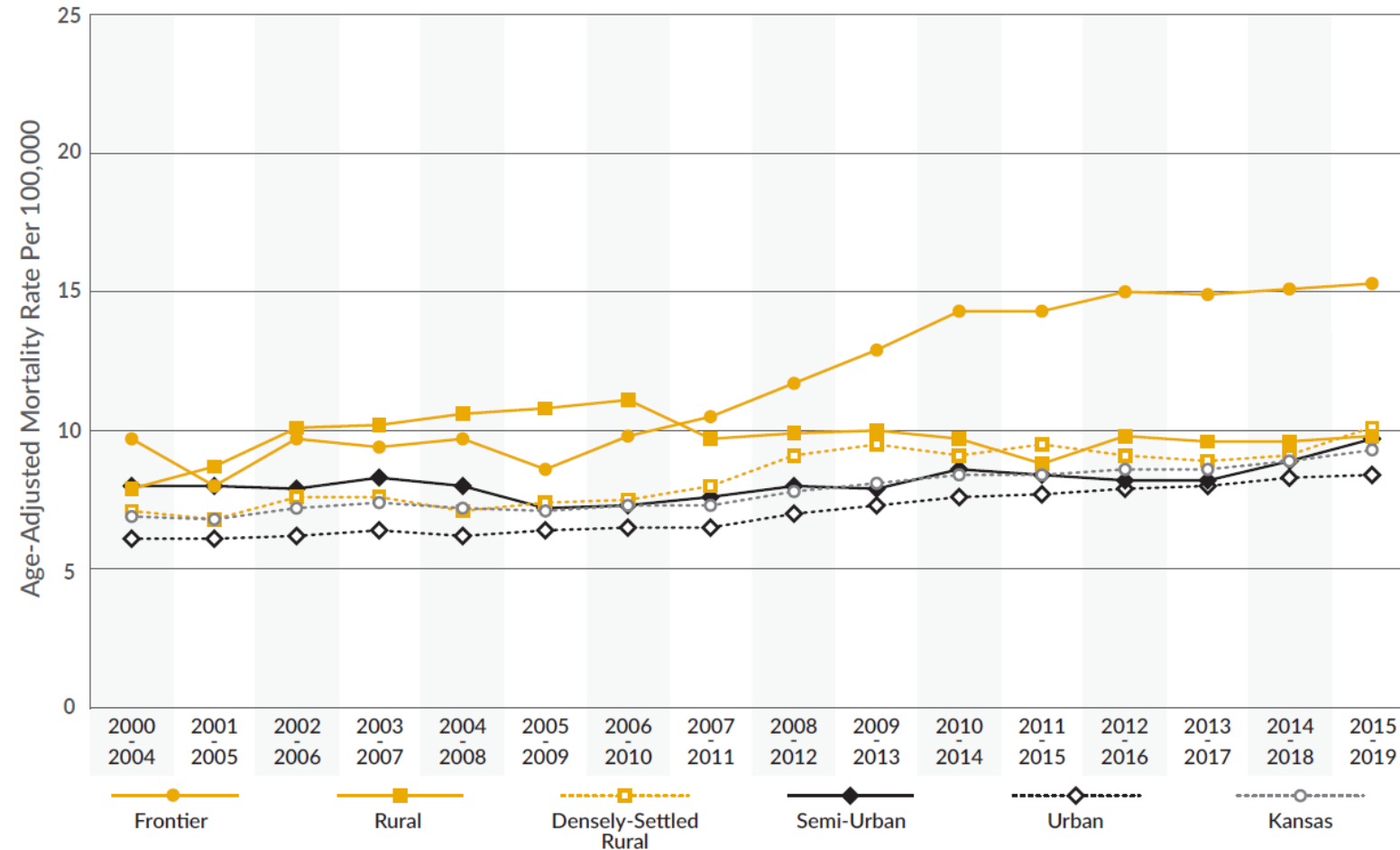


Note: Data were aggregated to five years due to small sample size. All rates are age-adjusted to the U.S. 2000 standard population.  
 Source: KHI analysis of Kansas Information for Communities data, 2000-2019.



# Suicide Rates by Peer Group, 2000-2019 (Firearms)

Figure 2. Rate of Suicide by Discharge of Firearms by Peer County Group, Kansas, 2000-2019

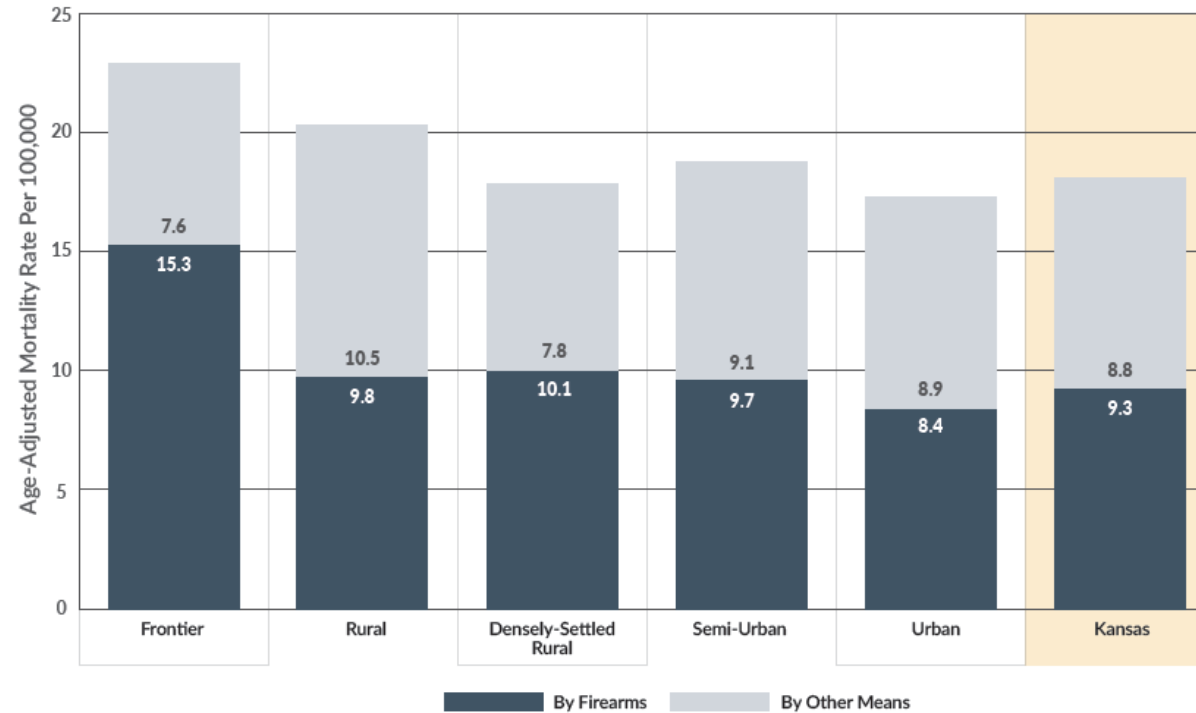


Note: Data were aggregated to five years due to small sample size. All rates are age-adjusted to the U.S. 2000 standard population.  
Source: KHI analysis of Kansas Information for Communities data, 2000-2019.



# Suicide Rates by Peer Group, 2015-2019

Figure 3. Rate of Suicide and Means of Suicide by Peer County Group, 2015-2019



Peer County Group	Frontier	Rural	Densely-Settled Rural	Semi-Urban	Urban	Kansas
Number of Suicides	122	229	407	419	1,432	2,609
Suicide Per 100,000	22.9*	20.4	17.9	18.8	17.3	18.1
By Other Means	7.6**	10.5	7.8	9.1	8.9	8.8
By Firearms	15.3***	9.8	10.1	9.7	8.4	9.3

Note: Data were aggregated to five years due to small sample size. All rates are age-adjusted to the U.S. 2000 standard population. Statistically significant differences (p-value < 0.05) were found between Frontier and Urban counties (\*), between suicide by firearms and by other means for Frontier counties (\*\*), and between Frontier and other county groups (\*\*\*).

Source: KHI analysis of Kansas Information for Communities data, 2015-2019.





# Suicide Rates Among Kansas Youth

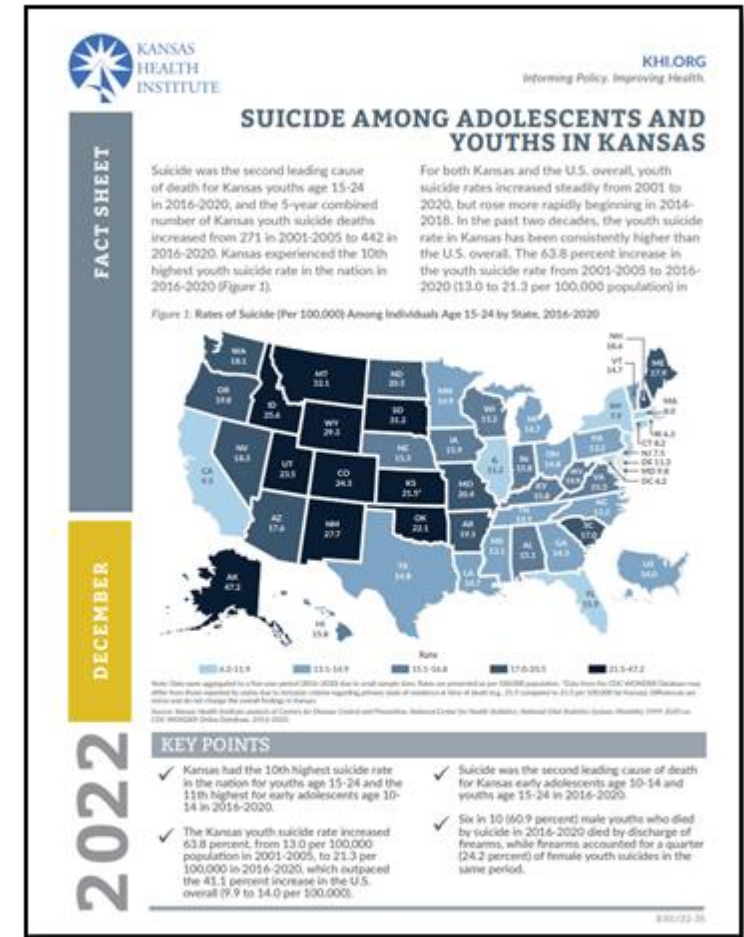
## Methods

- Trend in suicide rates and means
- Data from KDHE Vital Statistics and KIC & CDC WONDER
- 20 Years from 2001-2020
- Data aggregated to five-year periods

*We recognize Lauren Gracy, Epidemiologist, KDHE, for her contributions.*

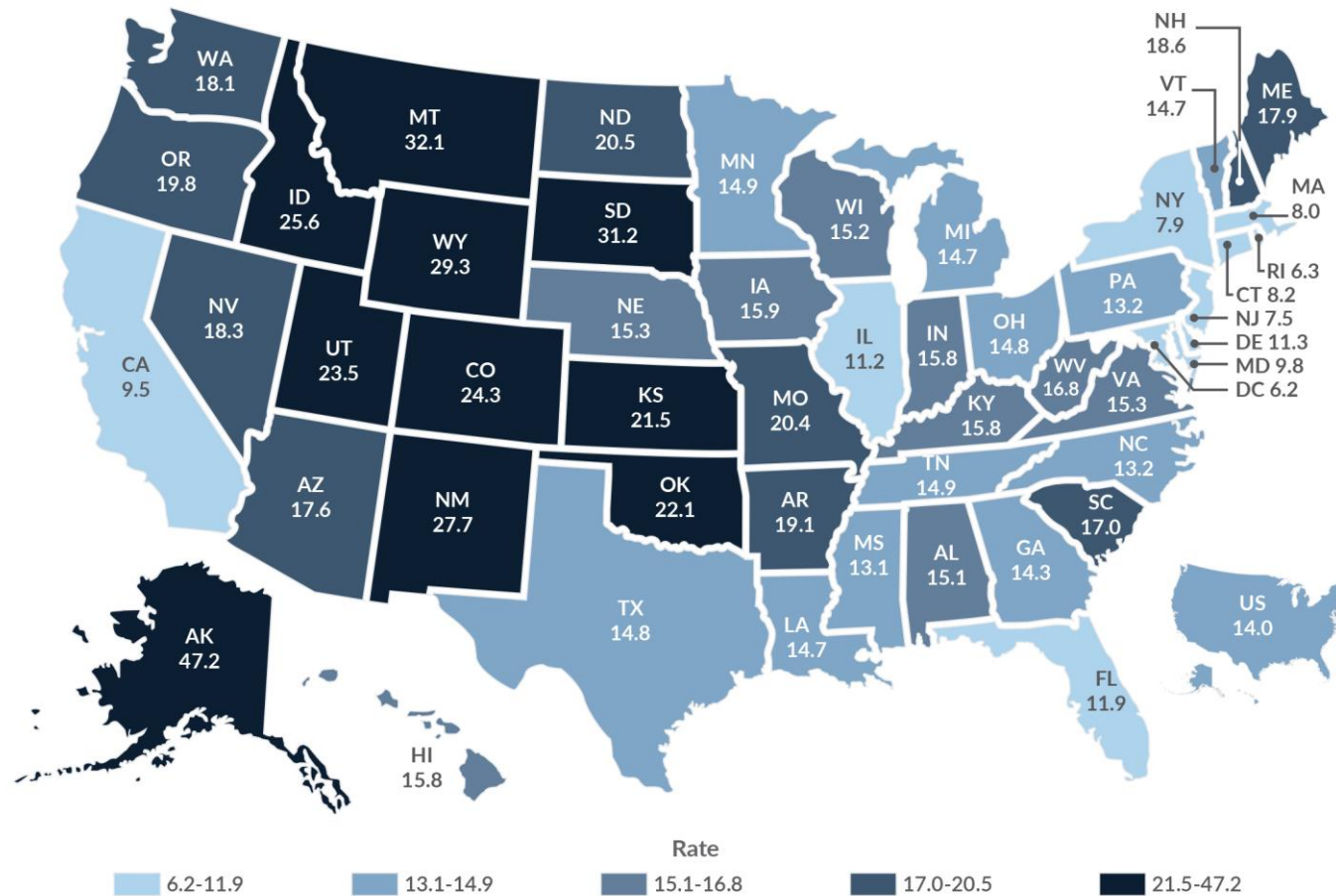
KDHE KIC Link: [http://kic.kdheks.gov/death\\_new.php](http://kic.kdheks.gov/death_new.php)

CDC WONDER Link: <https://wonder.cdc.gov/>



# State Rates of Suicide – Youth 15-24

Rates of Suicide (Per 100,000) Among Individuals Age 15-24 by State, 2016-2020

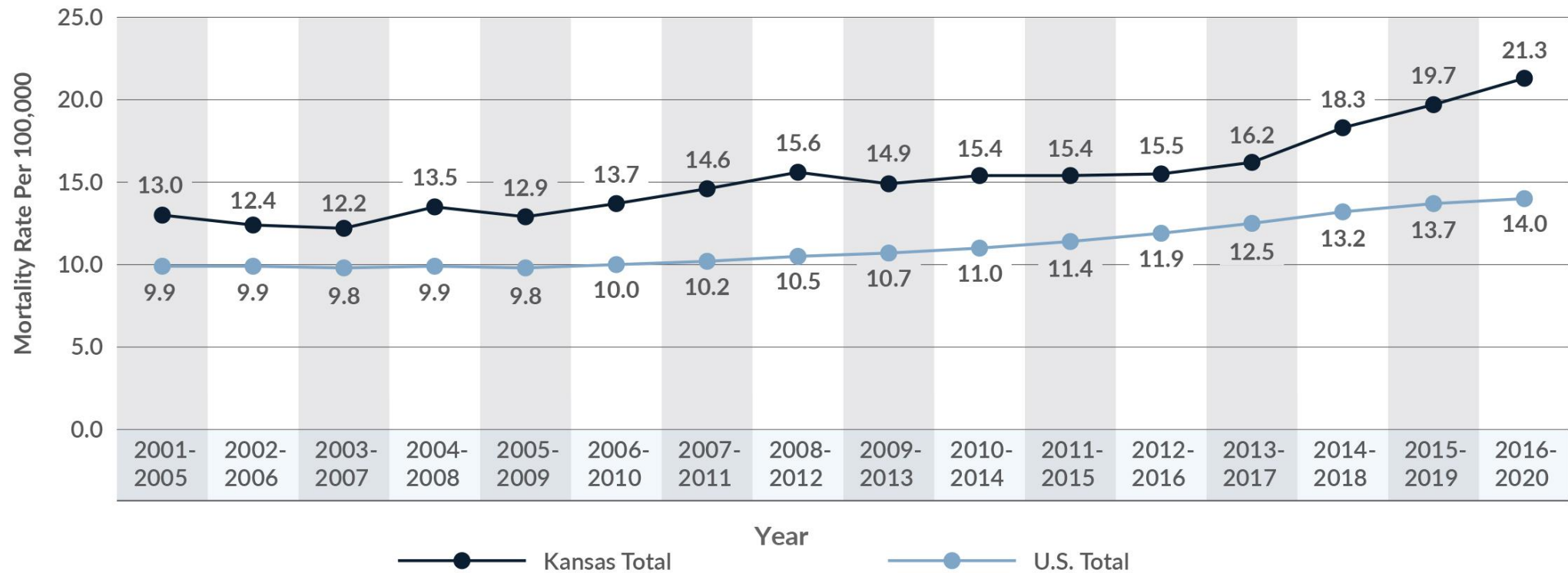


Note: Data were aggregated to a five-year period (2016-2020) due to small sample size. Rates are presented as per 100,000 population. Data from the CDC WONDER Database may differ from those reported by states due to inclusion criteria regarding primary state of residence at time of death. Differences are minor and do not change the overall findings in Kansas.  
 Source: Kansas Health Institute analysis of Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System, Mortality 1999-2020 on CDC WONDER Online Database, 2016-2020.



# Suicide Rate Trend – Youth 15-24

Rates of Suicide (Per 100,000) Among Youth Age 15-24 in Kansas and the U.S., 2001-2020



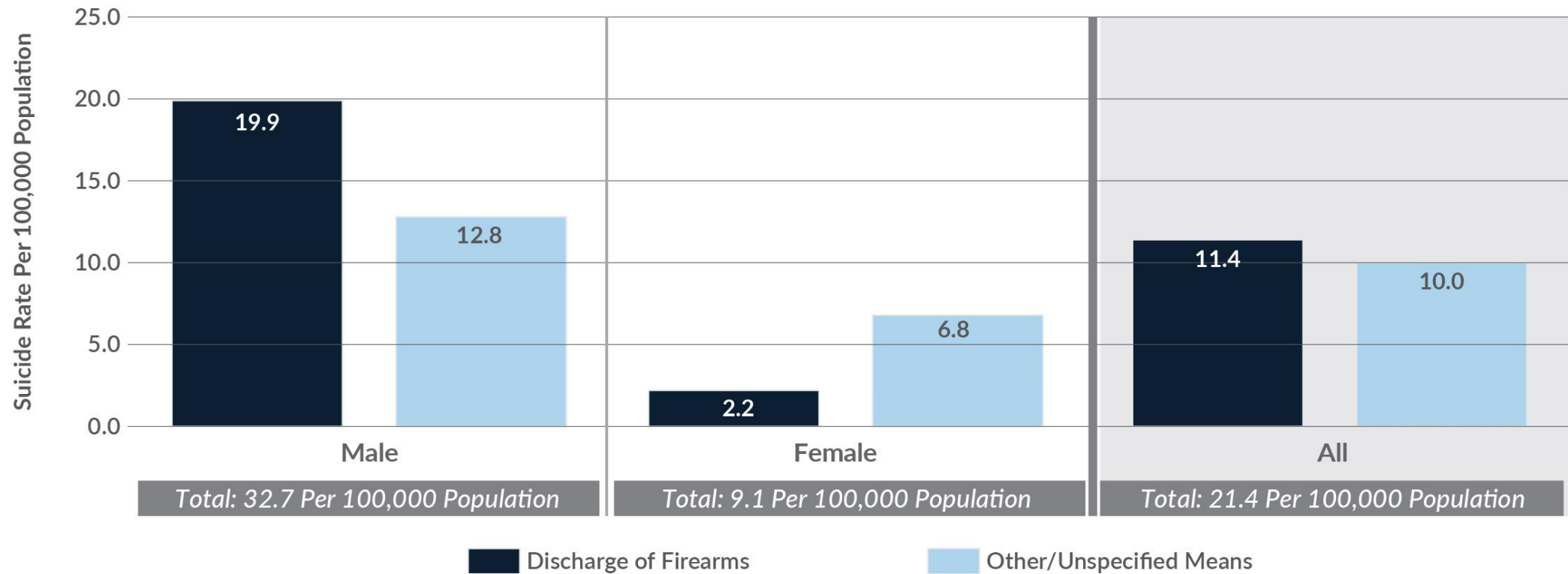
Note: Data were aggregated to five-year periods (e.g., 2016-2020) due to small sample size.

Source: Kansas Health Institute analysis of Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System, Mortality 1999-2020 on CDC WONDER Online Database, 2001-2020, and Kansas Department of Health and Environment, Office of Vital Statistics, Death Database, 2001-2020.



# Means of Suicide in Kansas – Youth 15-24

Rates of Suicide (Per 100,000) Among Male and Female Youth Age 15-24 in Kansas, 2016-2020



Note: Data were aggregated to five-year periods (e.g., 2016-2020) due to small sample size.

Source: Kansas Health Institute analysis of Kansas Department of Health and Environment, Office of Vital Statistics, Death Database, 2001-2020.



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# THANK YOU!

## Any Questions?



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