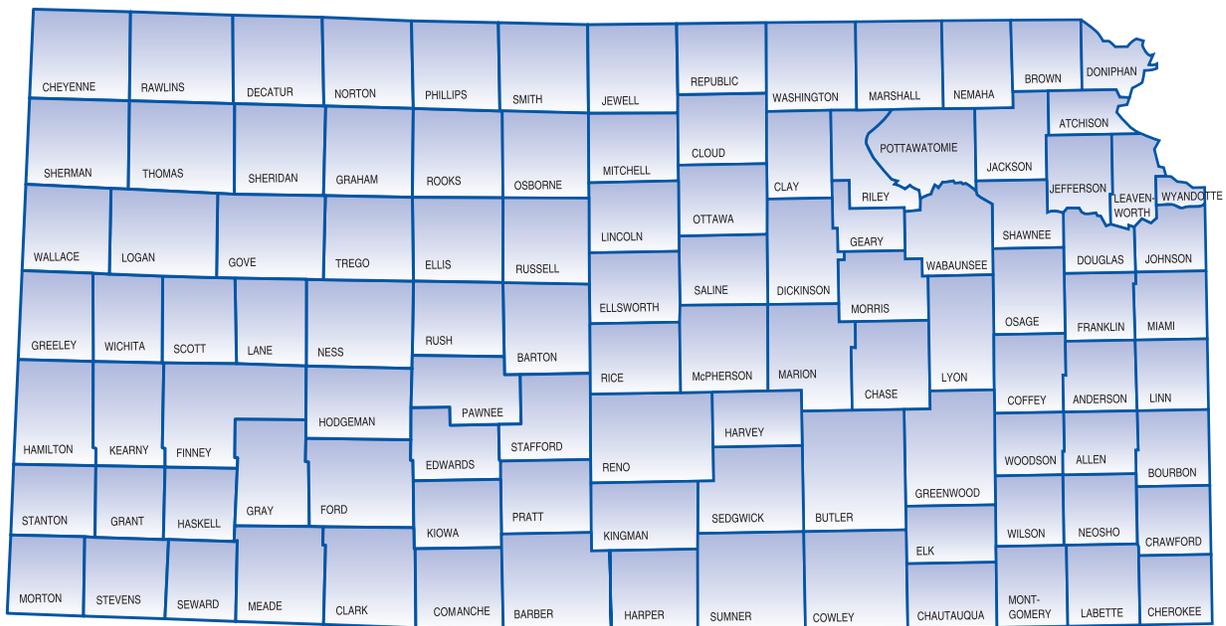


Injury Mortality In Kansas 1999-2003



Office of Injury Prevention
Office of Health Promotion
Kansas Department of Health and Environment

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*The mission and vision for the **Office of Injury Prevention** is as follows:*

Mission: *Build Solid Infrastructure to Improve the Health of Kansans by Increasing Awareness & Action to Reduce Unintentional and Intentional Injuries.*

Vision: *To provide Technical Assistance to Local & State Partners to Access Burden of Injury, Assure Interventions and Facilitate Policy Development*

INTRODUCTION

Unintentional injuries and violence account for more than 1,500 deaths each year in the state of Kansas, corresponding to an average annual injury death rate of approximately 58.3 per 100,000 persons. Unintentional injuries alone were the fifth leading cause of death overall in 2003, accounting for 1,076 deaths. Among persons ages 1-44 years, unintentional injuries are the leading cause of death in Kansas.

From the Centers of Disease Control 2001-2002 Injury Fact Book

“Injuries Affect Everyone:

Injuries are a leading cause of deaths for Americans of all ages, regardless of gender, race or economic status. But injury deaths are only part of the picture. Millions of Americans are injured each year and survive. For many of them, the injury causes temporary pain and inconvenience, but for some, the injury leads to disability, chronic pain, and a profound change in lifestyle.”

This mortality report is based on underlying causes reported on death certificates for the years 1999-2003. As such, this document represents a follow-up to previous analysis of injury deaths in Kansas that assessed the years 1995 – 1998 and 1990 – 1994. This is a secondary study, based primarily on vital statistics data from the Center for Health and Environmental Statistics, Division of Health, KDHE. In this study, analysis of the number and intent of fatal injury is guided by the matrix model.ⁱ Because of minor differences, Kansas studies may have slight variances in rates and numbers.

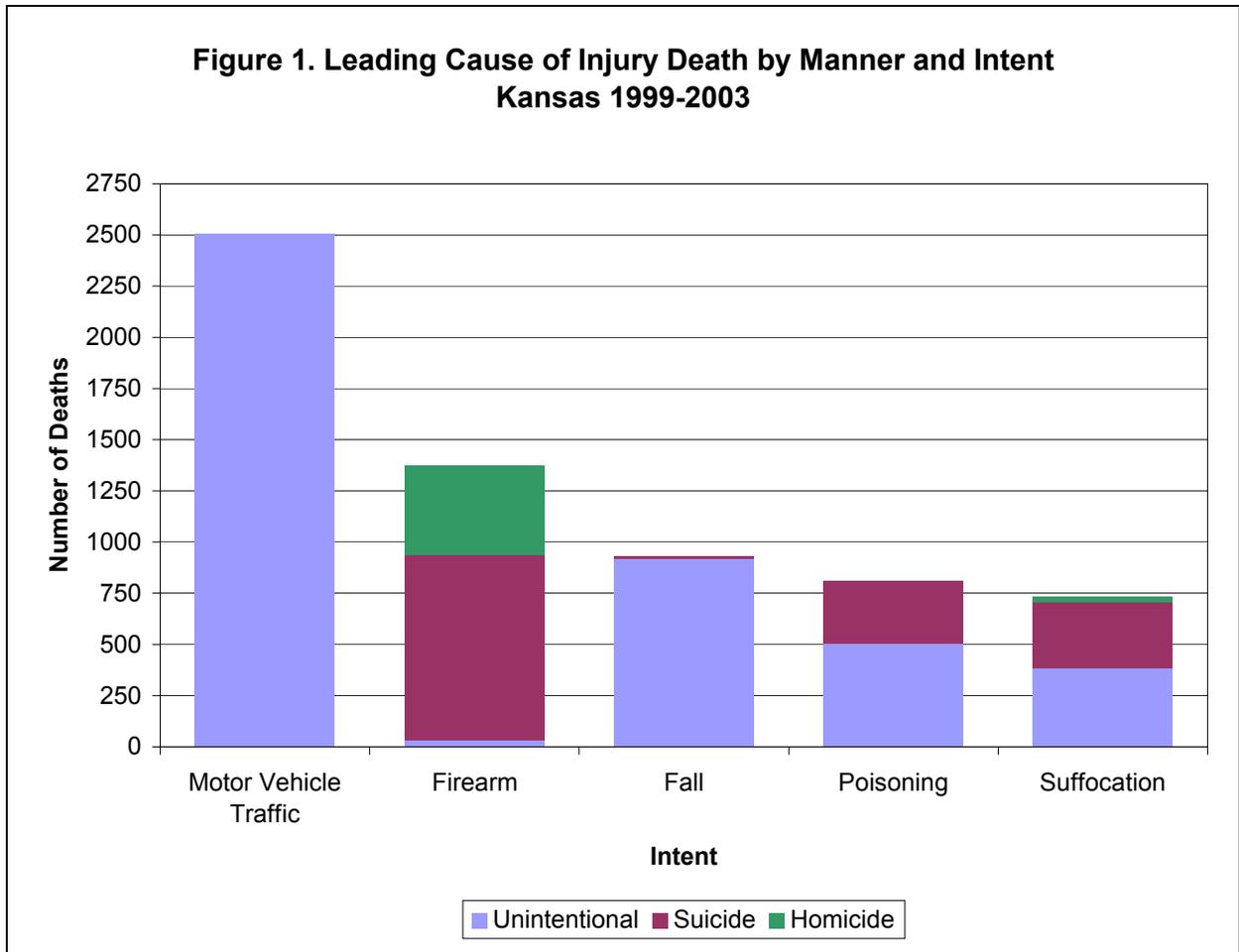
ⁱ Electronic reference formats recommended by the Center for Disease Control and Prevention. (2005, February 12). Retrieved October 26, 2005, from <http://www.cdc.gov/ncipc/whatsnew/matrix2.htm>

FACT SHEET

Injury-Related Mortality in Kansas, 1999-2003

- ❑ Motor vehicle-related crashes and firearms accounted for half of all injury deaths in Kansas between 1999 and 2003.
- ❑ The majority of deaths due to an injury were due to unintentional injury (70%).
- ❑ Suicides accounted for 21% of the injury deaths, while homicides accounted for 8%, and 1% were due to deaths of undetermined intent and/or those involving legal/war cases.
- ❑ Motor vehicle crashes were the number one cause of unintentional injury deaths in Kansas; falls ranked 2nd in the number of unintentional injury deaths.
- ❑ Overall, the rate of injury death in Kansas is approximately 2 times higher among males than among females.
- ❑ The highest rates of motor-vehicle -related injury deaths occurred among males aged 15-24 years and males aged 75-84 years.
- ❑ The age group with the highest death rates from unintentional injuries was persons aged 85 years and older.
- ❑ Suicide rates were highest among males aged 75 years and older.

All Injuries

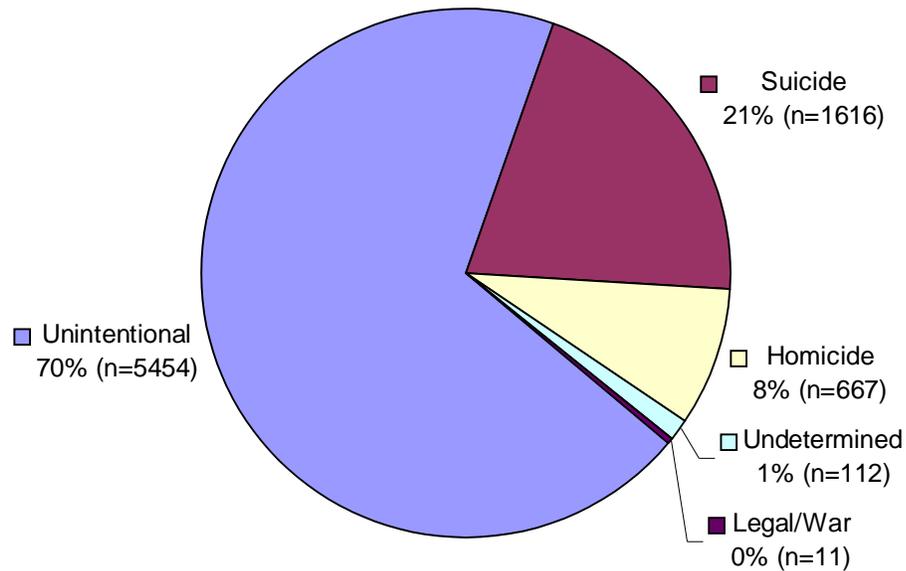


N = 7,860

KDHE, Vital Statistics

- Motor vehicle-related injuries and firearm injuries are the two leading causes of injury deaths in Kansas.
- Between 1999 and 2003, these two causes accounted for 50 percent (32 percent motor vehicle, 18 percent firearm) of all injury deaths.
- Motor vehicle-related deaths were almost all classified as unintentional, whereas firearm deaths were mainly suicides and homicides.

**Figure 2. Injury Mortality by Intent
Kansas 1999-2003**



N = 7,860

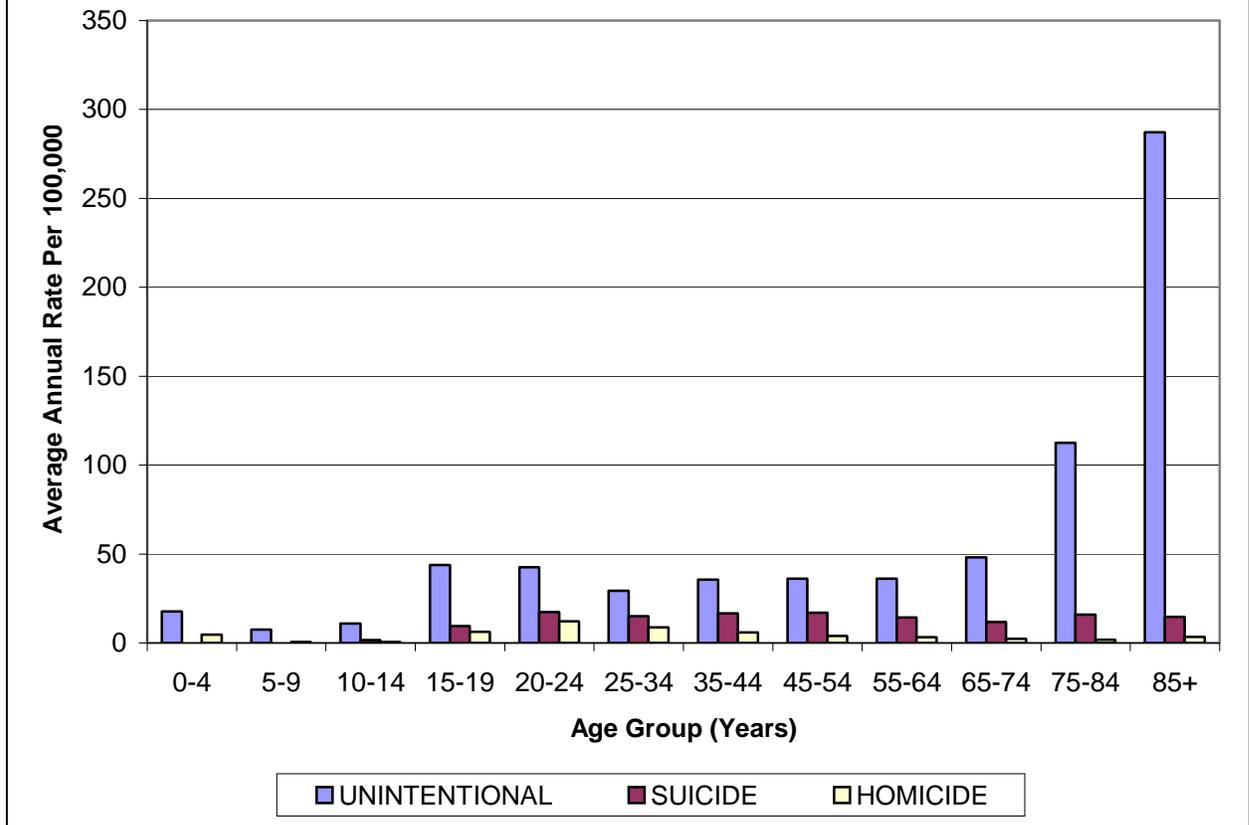
KDHE, Vital Statistics

- Injury may be classified as unintentional (commonly referred to as accidents) or intentional (homicide and suicide).

- The majority of injury deaths occurring in Kansas were unintentional. Between 1999 and 2003, 70 percent all injury deaths were unintentional, 29 percent of the deaths were due to suicide and homicide.

- There were more than twice as many deaths due to suicide (1,616) compared to homicide (667).

**Figure 3. Injury Mortality Rate by Intent and Age
Kansas 1999-2003**

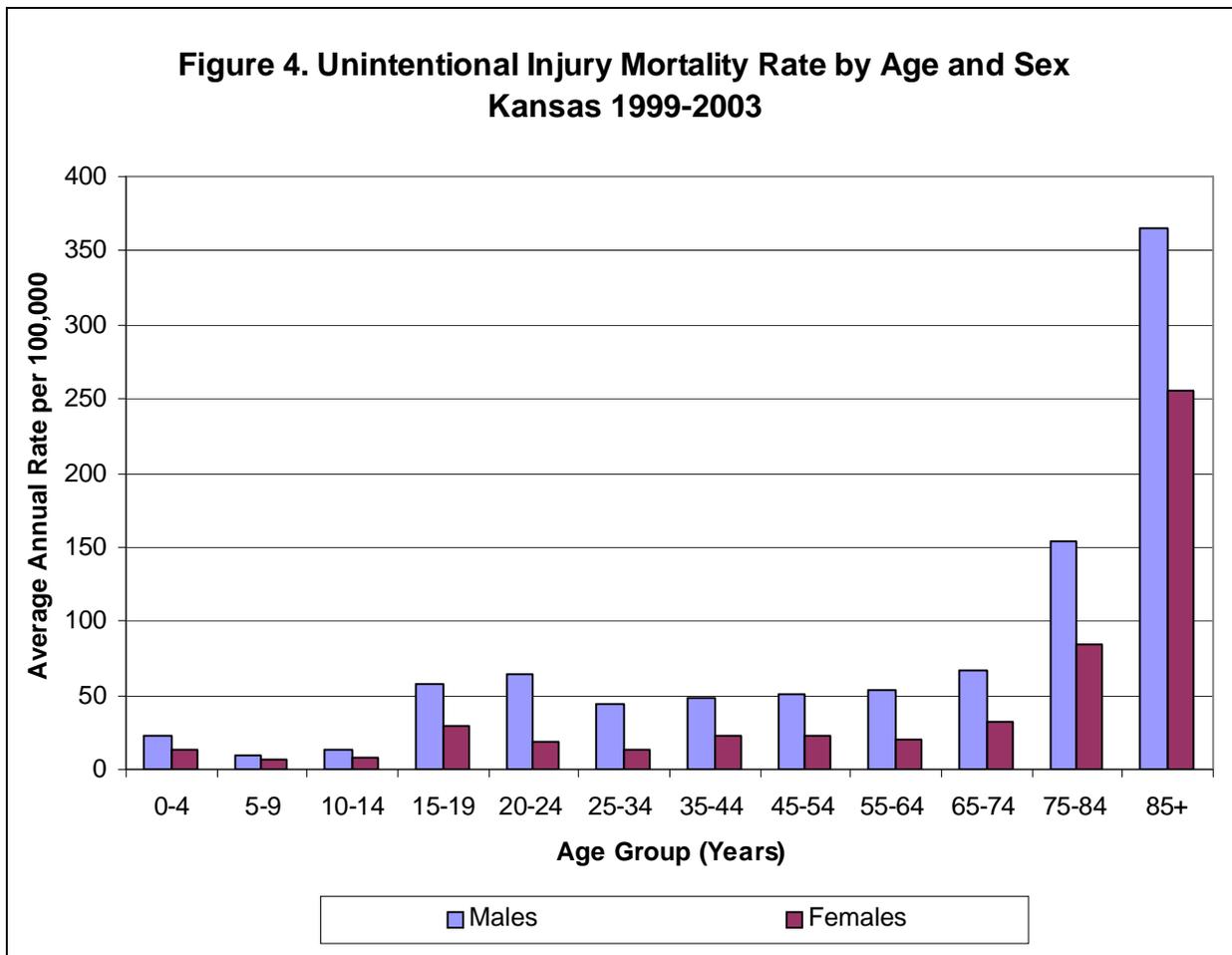


N = 7,860

KDHE, Vital Statistics

- For every age group, unintentional injuries were the most frequent form of injury mortality.
- Persons aged 85 years and older had high rates of death due to unintentional injuries. Between 1999 and 2003, 287 out of every 100,000 Kansans age 85 years and older died as a result of an unintentional injury.
- Persons ages 75 to 84 years had the second highest rate of unintentional injury. High rates were also observed among persons ages 15 to 19 years and 20 to 24 years.

Unintentional Injuries

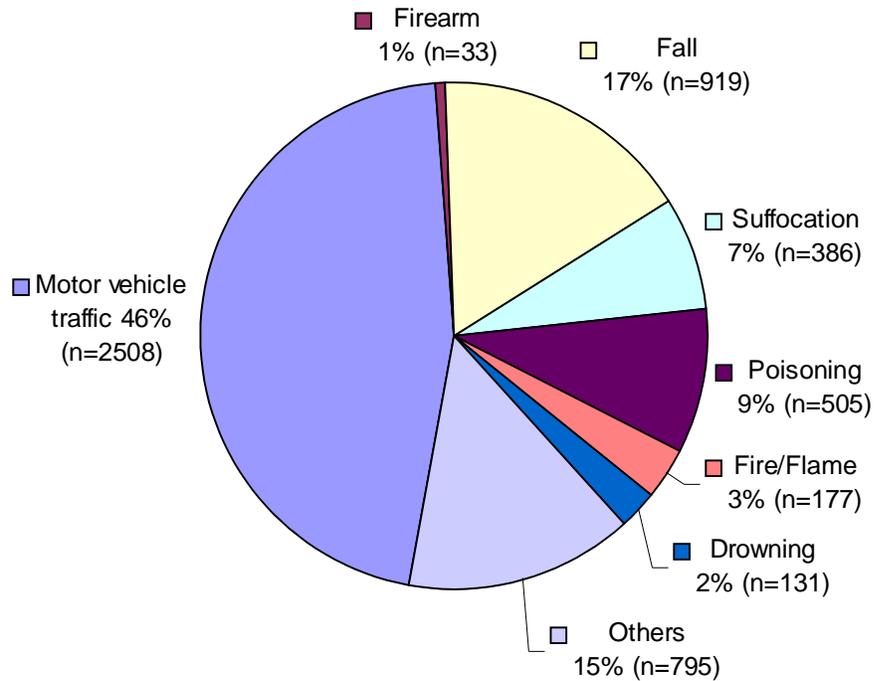


N = 5,454

KDHE, Vital Statistics

- A total of 5,454 Kansas residents died from unintentional injuries between 1999 and 2003.
- Males and females 75 years and older had the highest rates of deaths due to unintentional injuries.
- Males had a higher rate of death due to unintentional injury in every age group when compared to females

**Figure 5. Unintentional Injury Mortality by Mechanism of Injury
Kansas 1999-2003**

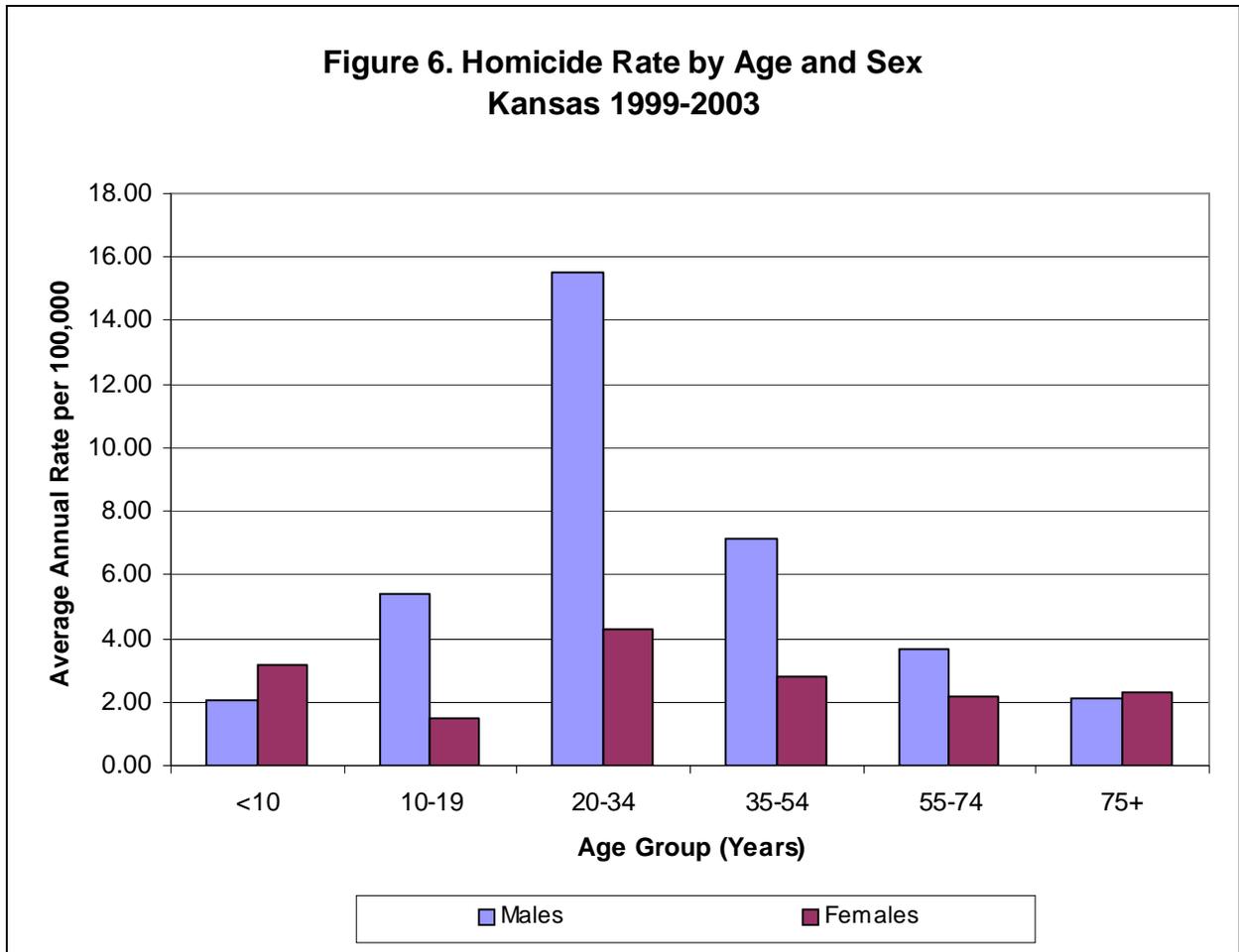


N = 5,454

KDHE, Vital Statistics

- Most unintentional injury deaths were due to motor vehicle crashes. A total of 2,508 Kansans were killed in a motor vehicle-related incident between 1999 and 2003.
- Falls were the second leading cause of unintentional injury deaths in Kansas. Nine hundred and nineteen (919) persons were unintentionally killed in a fall-related incident.

Homicides



N = 667

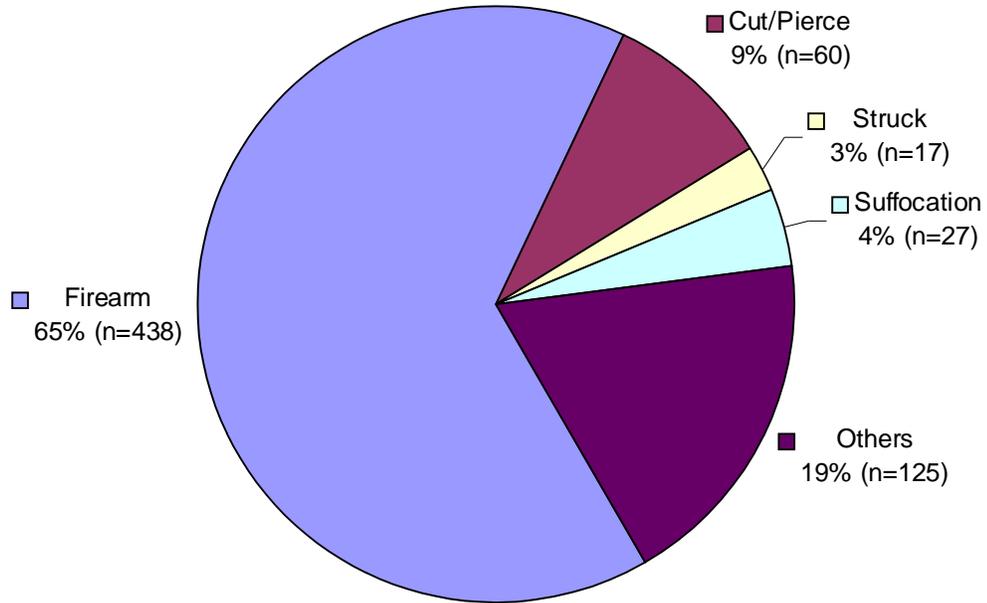
KDHE, Vital Statistics

- Between 1999 and 2003, 667 Kansans were victims of homicide.

- The rate of homicide is highest among Kansans ages 20 to 34 years. Of this group, homicide rate is approximately four times higher among males than among females.

- Overall, the rate of homicide in Kansas is approximately three times higher among males than among females.

**Figure 7. Homicides by Mechanism of Injury
Kansas 1999-2003**

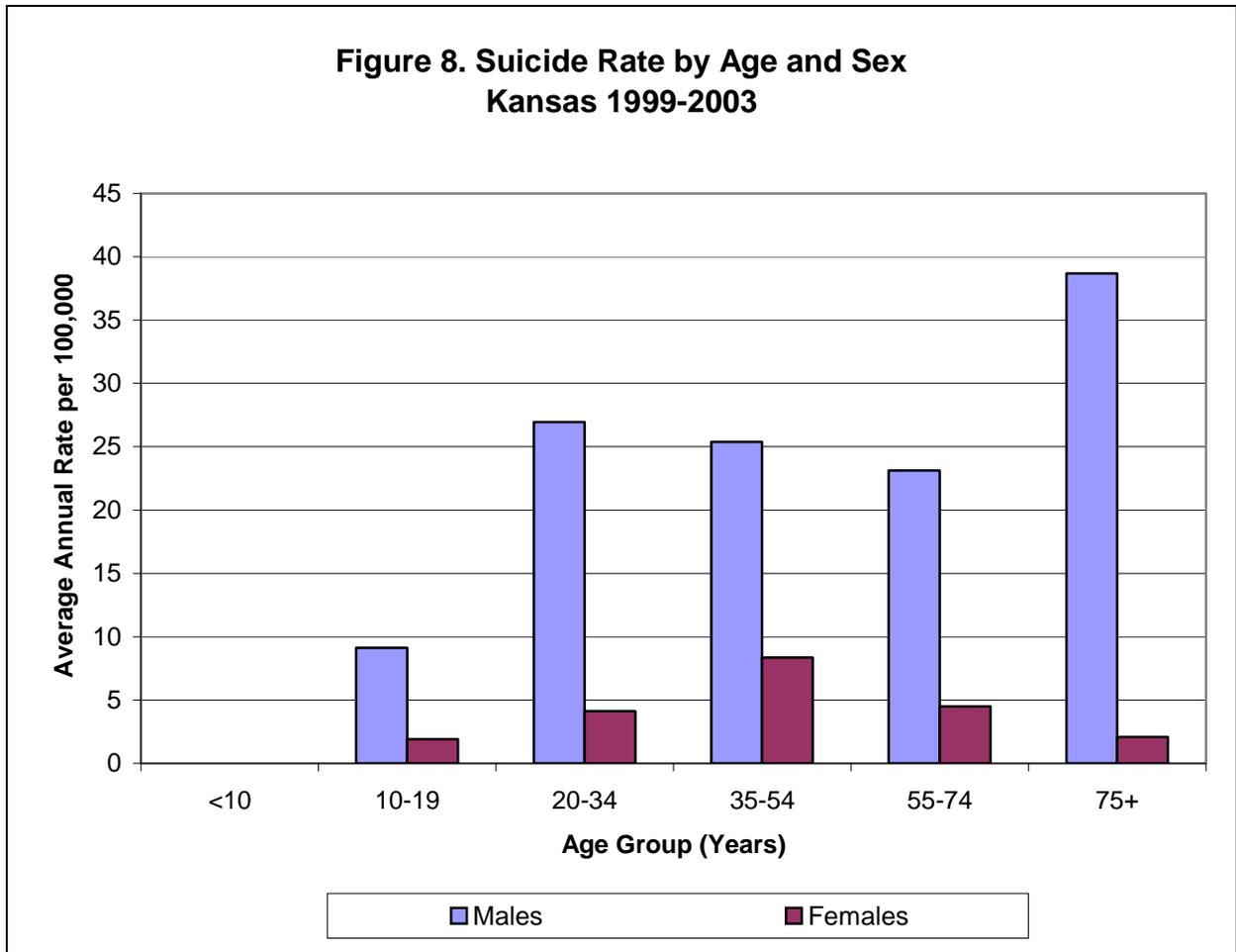


N = 667

KDHE, Vital Statistics

- Firearms were the most common weapons used to commit homicide in Kansas between 1999 and 2003.
- Between 1999 and 2003, a firearm killed a total of 438 Kansans.
- Among Kansans killed by a firearm, 342 were male and 96 were female. Most of these victims were between the ages of 20 and 54 years.

Suicide

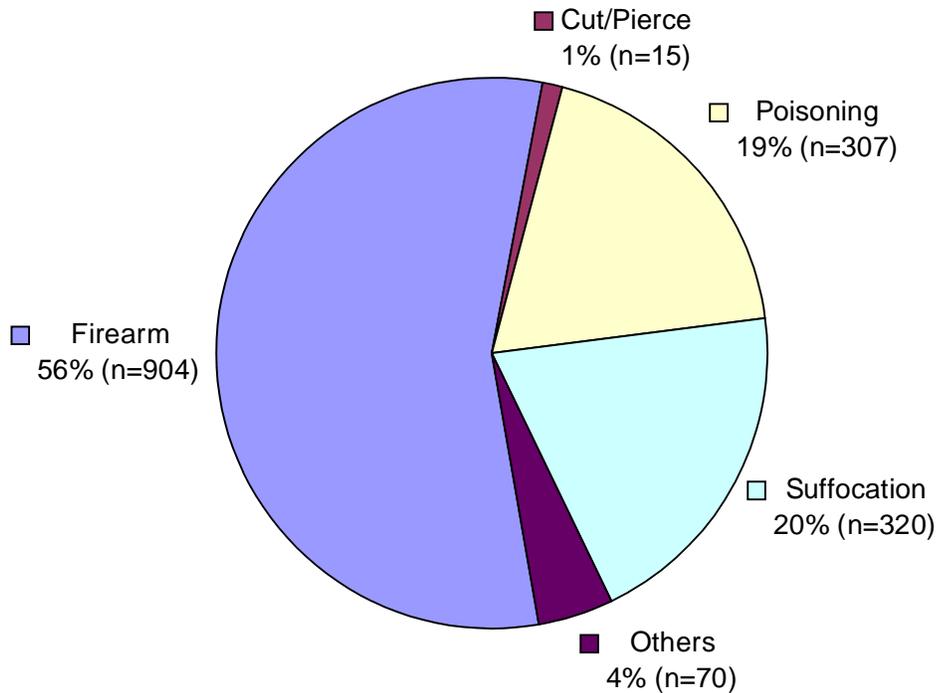


N = 1,616

KDHE, Vital Statistics

- A total of 1,616 Kansans committed suicide between 1999 and 2003.
- The rate of suicide is approximately five times higher among males than among females.
- The highest rate of suicide occurred among Kansans ages 75 years and older.

**Figure 9. Suicide by Mechanism of Injury
Kansas 1999-2003**

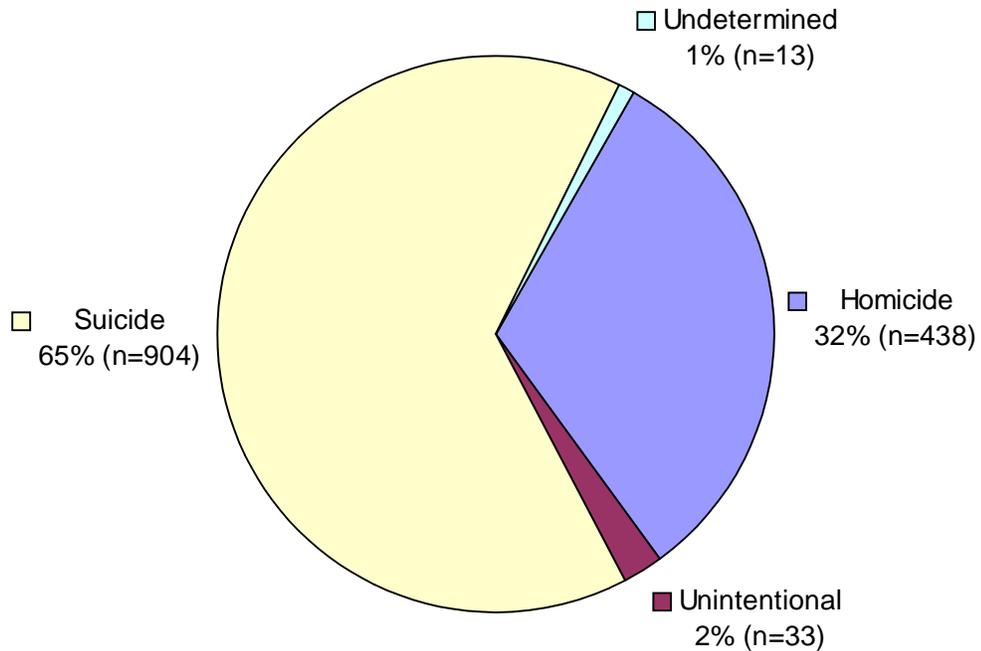


N = 1,616
KDHE, Vital Statistics

- The majority of suicides (56 percent, n =904) were committed with a firearm.
- Suffocation, usually in the form of hanging, and poisoning, usually by carbon monoxide inhalation or pill ingestion, were the 2nd and 3rd most common means to suicide.

Firearms

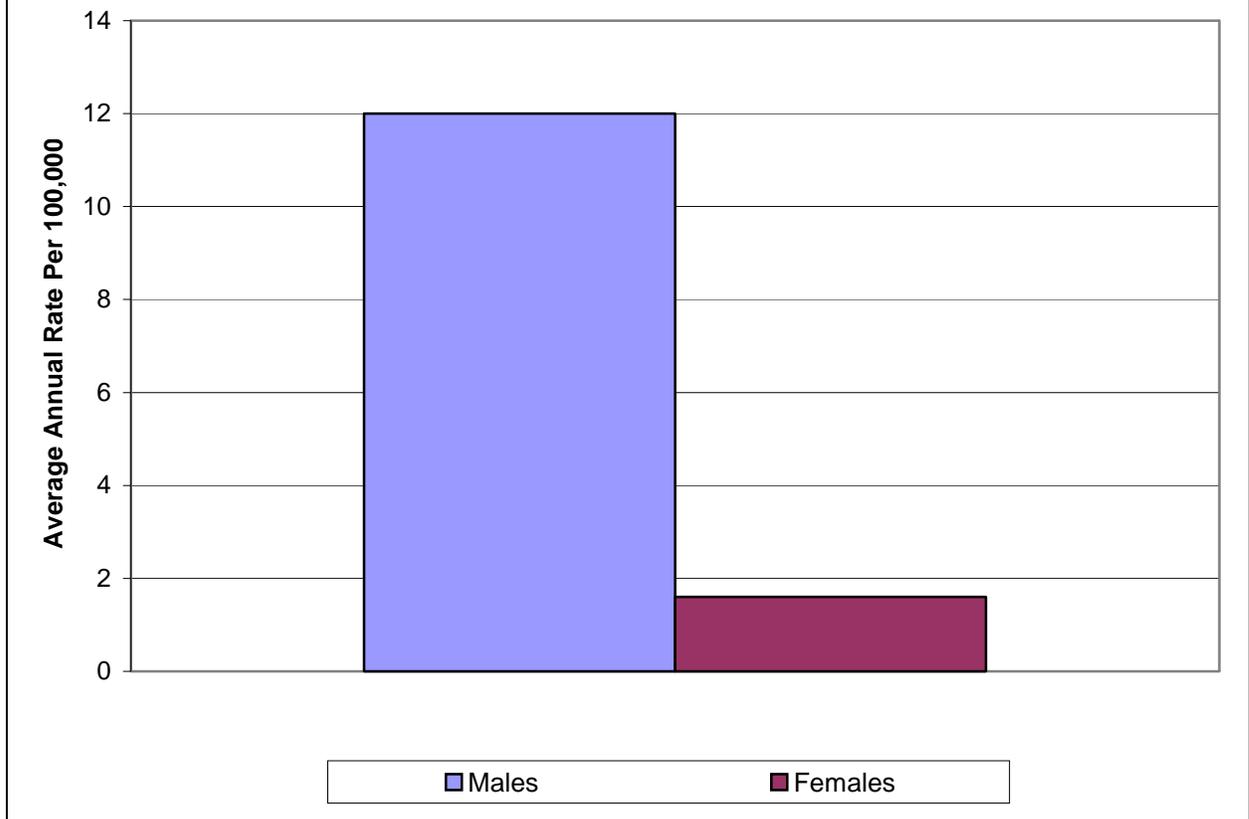
Figure 10. Firearm-Related Deaths by Intent
Kansas 1999-2003



N = 1,398
KDHE, Vital Statistics

- Between 1999 and 2003, firearms killed 1,398 Kansans.
- Firearms accounted for the majority of deaths due to suicide and homicide.
- Between 1999 and 2003, 33 Kansans were unintentionally shot and killed.

**Figure 11. Firearm Suicide Rate by Sex
Kansas 1999-2003**

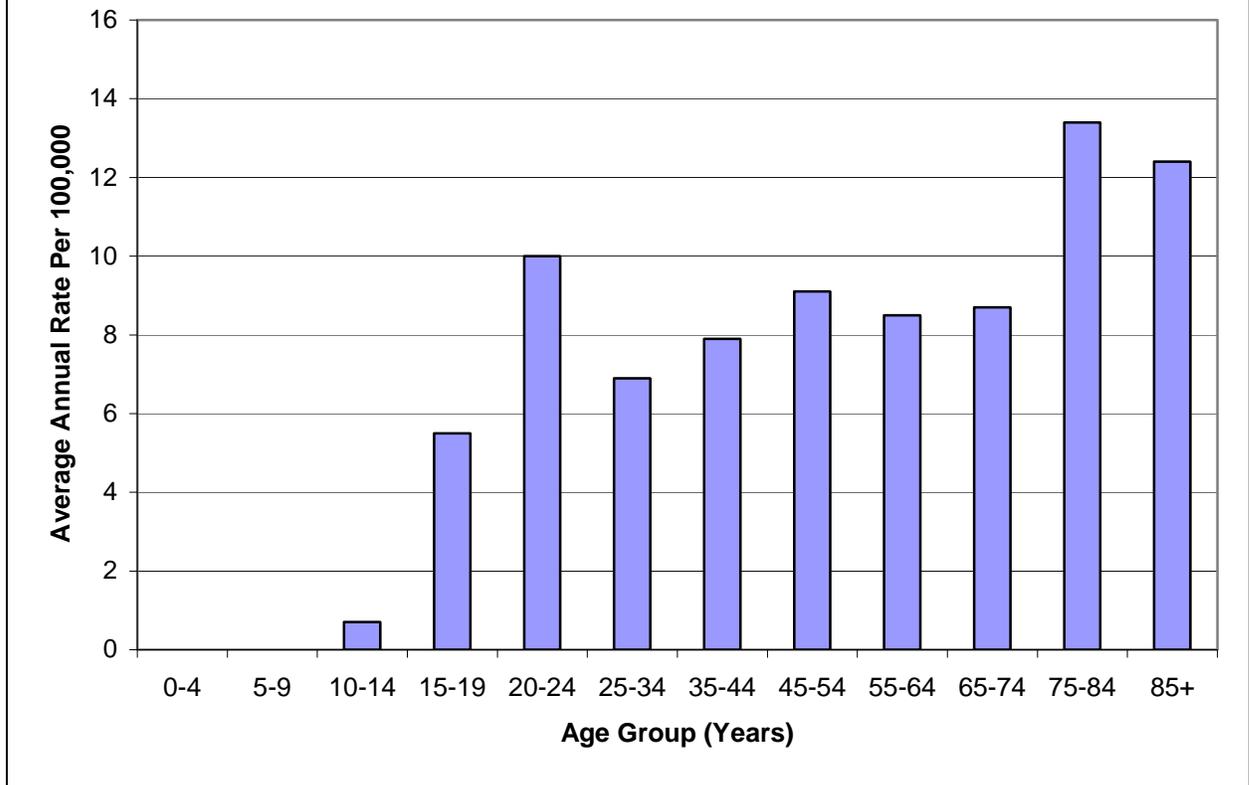


N = 904

KDHE, Vital Statistics

- The rate of firearm suicide was approximately eight times higher among males than among females.
- Among the 1,320 Kansas males who committed suicide, 60 percent (n=797) used a firearm; among the 296 women who committed suicide, 36 percent (n=107) involve the used of a firearm.

**Figure 12. Firearm Suicide Rate by Age
Kansas 1999-2003**

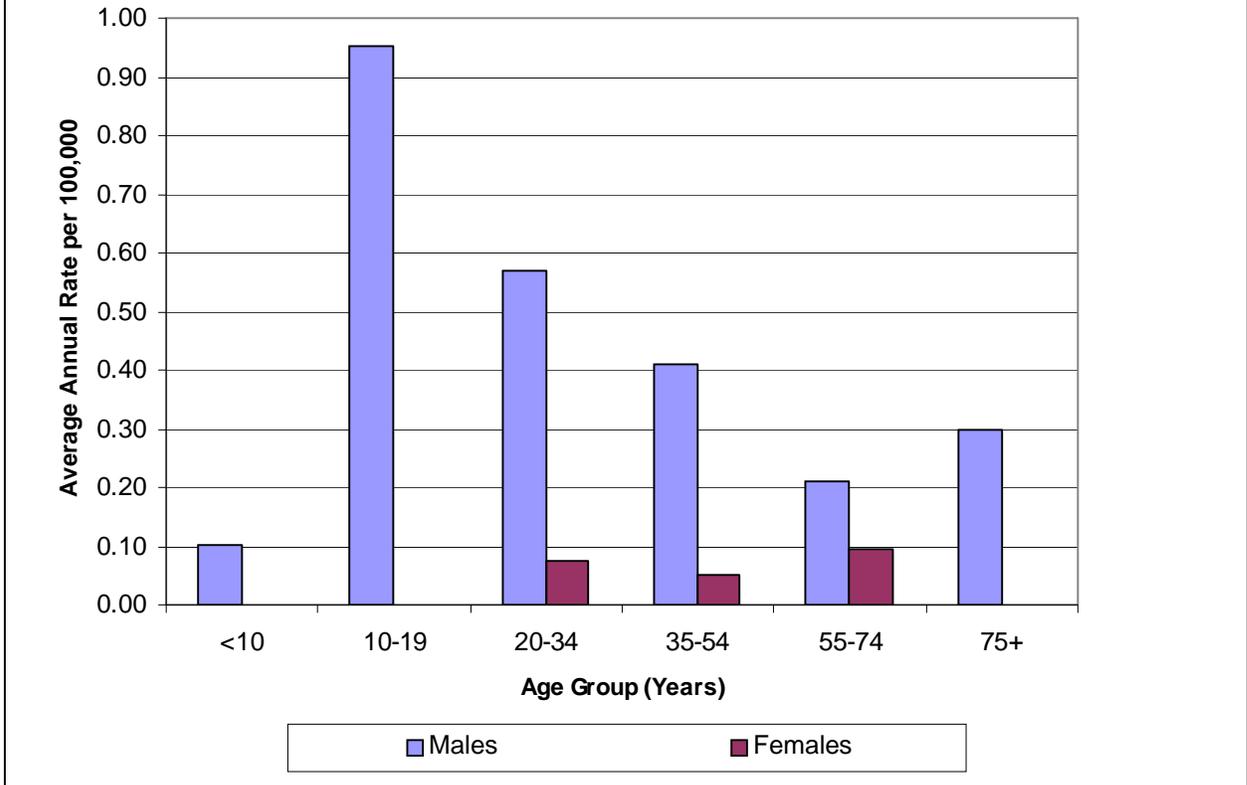


N = 904

KDHE, Vital Statistics

- Between 1999 and 2003, the highest rate of firearm-related suicides occurred among Kansans ages 75 to 84 years.
- High rates were also observed among Kansans ages 20 to 24 years and those 85 years and older.
- Sixty-four Kansans ages 10 to 19 years committed suicide with the use of a firearm between 1999 and 2003.

Figure 13. Unintentional Firearm-Related Death Rate by Age and Sex Kansas 1999-2003

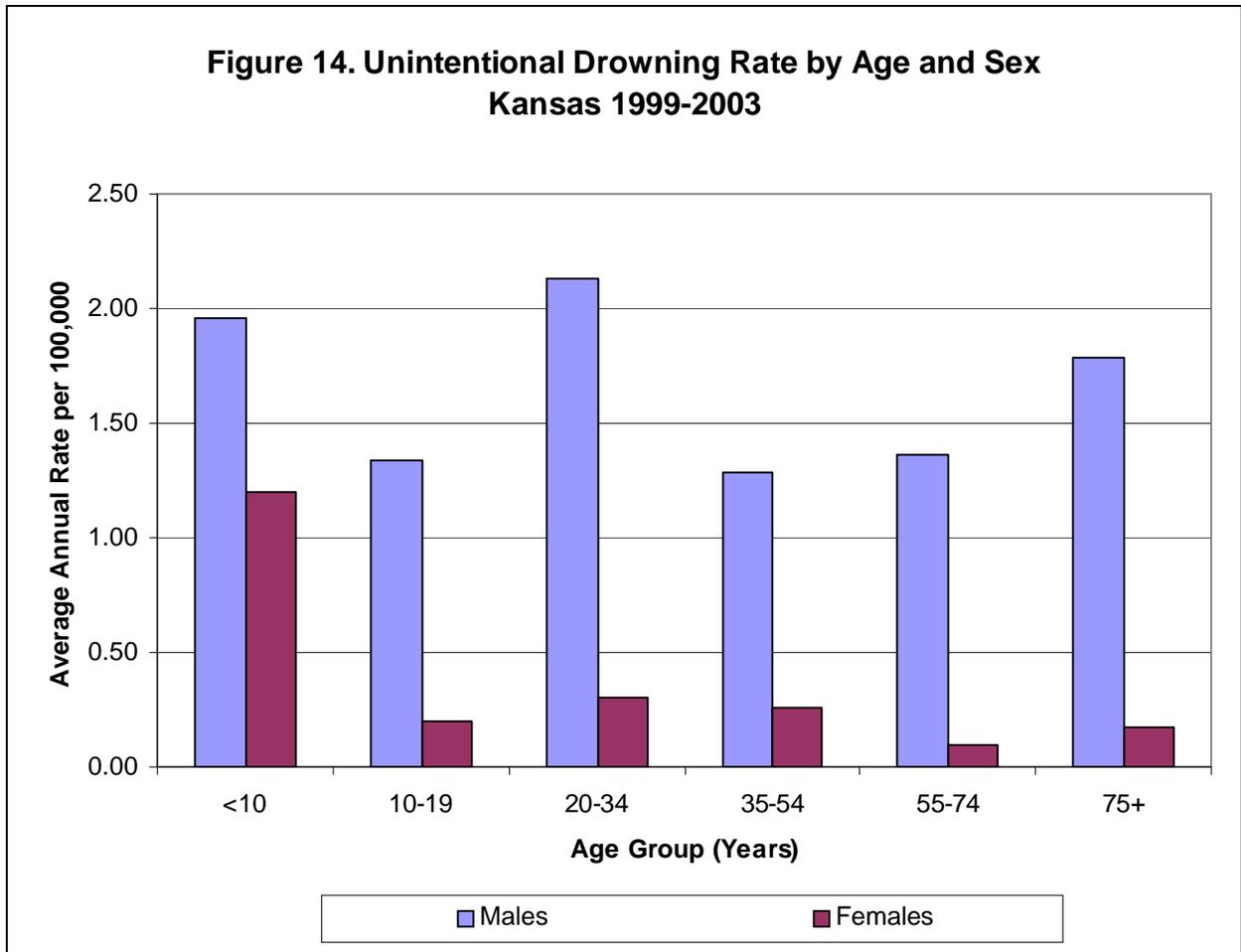


N = 33

KDHE, Vital Statistics

- Between 1999 and 2003, 33 Kansans died as a result of an unintentional gunshot wound. Ninety-one percent of these victims were males.
- The rate of unintentional firearm-related deaths was three times higher among males than among females.
- Deaths to due unintentional firearm injuries were highest among Kansans ages 10 to 19 years and lowest among Kansans less than 10 years of age.

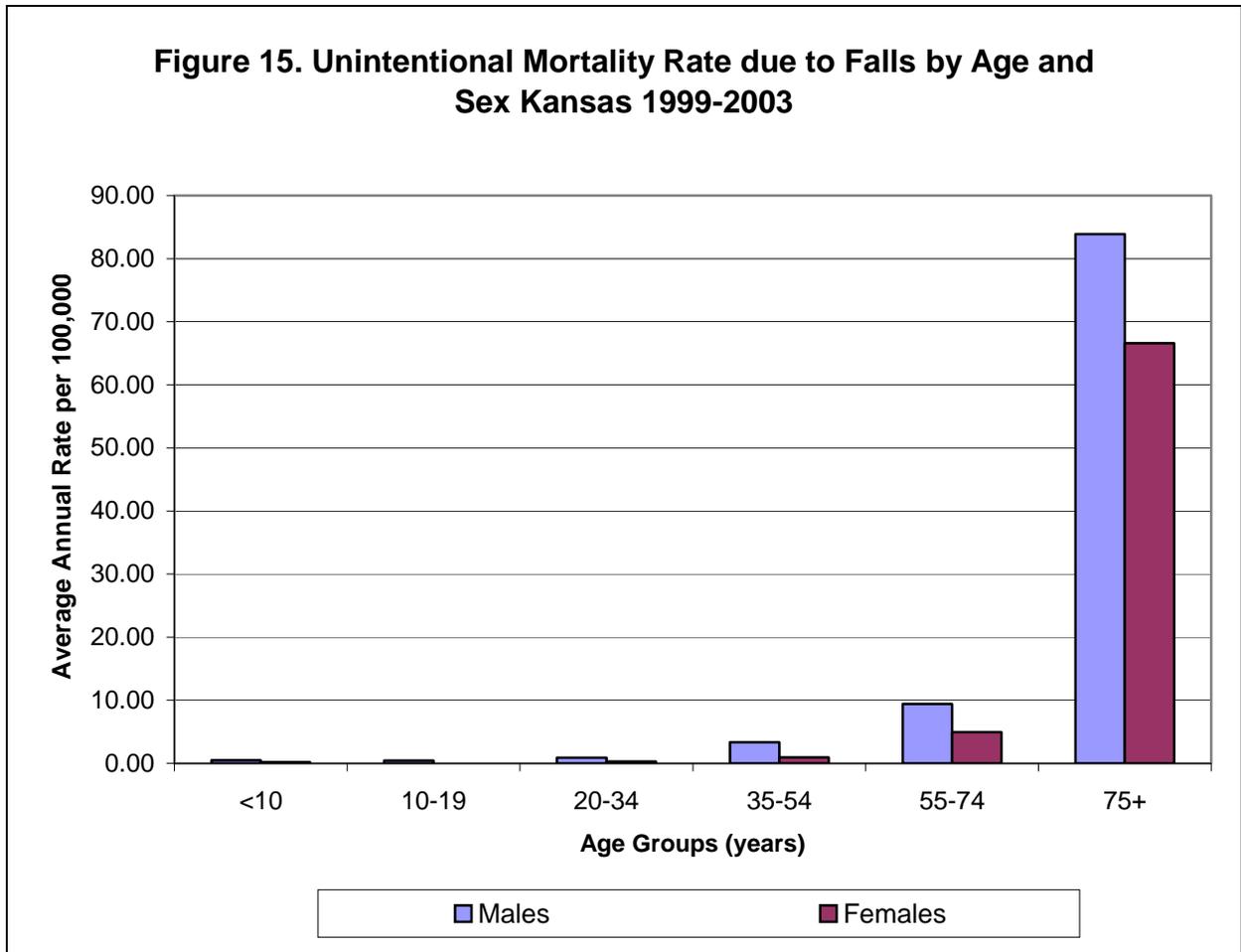
Drowning



N = 131
KDHE, Vital Statistics

- Between 1999 and 2003, 131 Kansans died from unintentional drowning.
- The rate of drowning was approximately five times higher among males than among females.
- Highest rate of drowning occurred among male Kansans ages 20 to 34 years, while the lowest rate of drowning occurred among female Kansans ages 55 to 74 years.

Falls

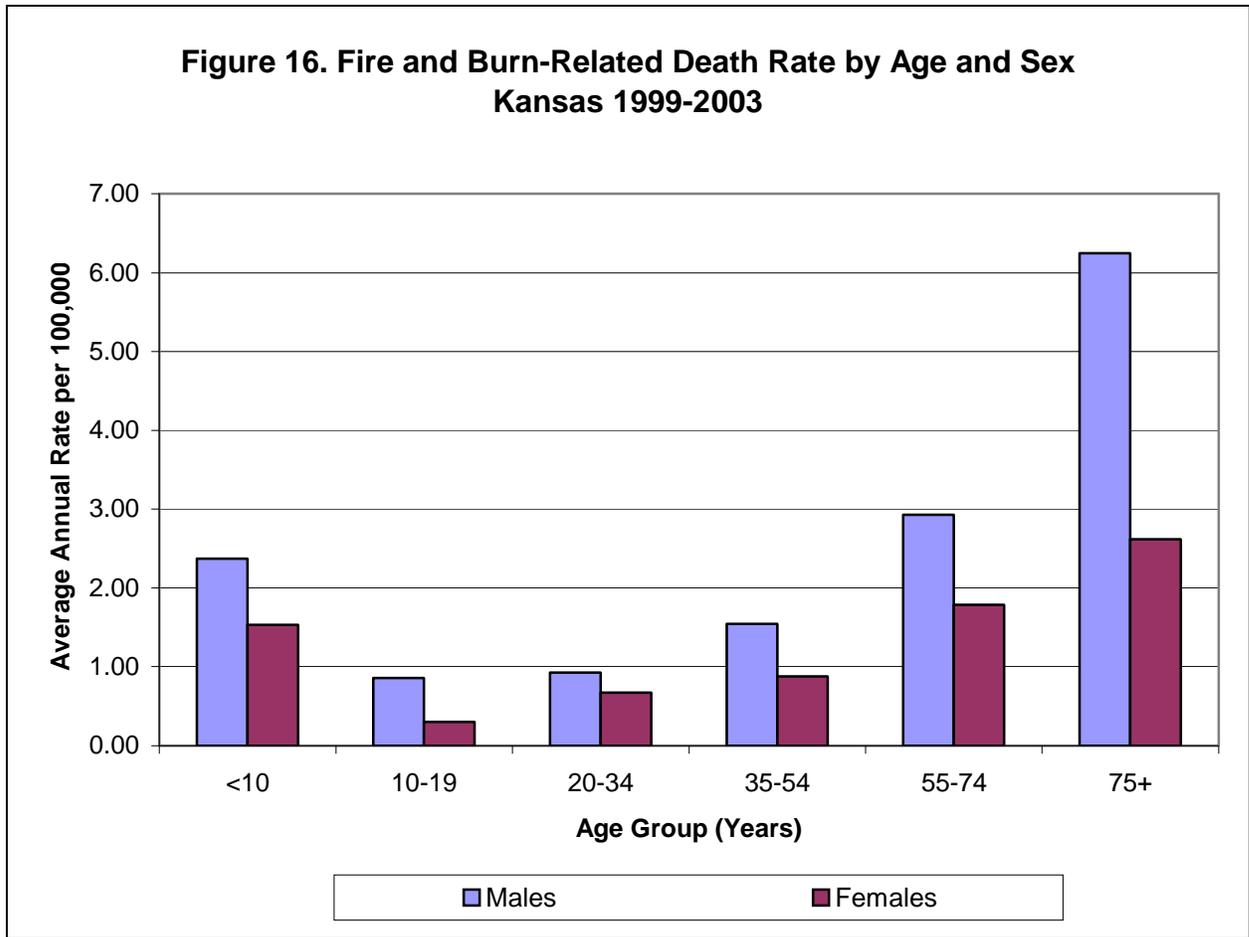


N = 919

KDHE, Vital Statistics

- Between 1999 and 2003, 919 Kansans died as a result of unintentional fall.
- The highest rate of deaths due to falls occurred among males ages 75 years and older.
- Relatively few fall-related deaths occurred in persons younger than 19 years.

Fire/Burn



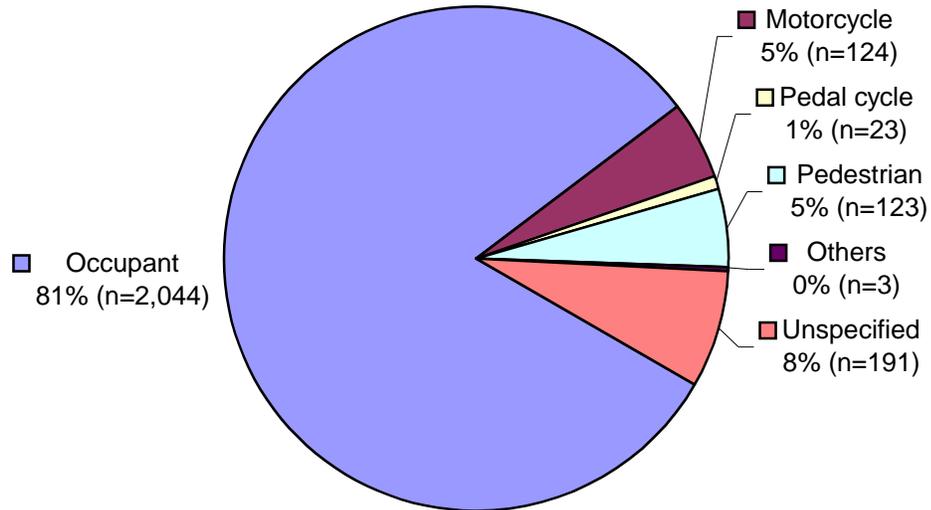
N = 203

KDHE, Vital Statistics

- A total of 203 Kansans died in a fire and burn-related incident between 1999 and 2003.
- The rate of fire and burn-related death is approximately two times higher among males than among females.
- Majority of fire and burn-related deaths occurred among Kansans older than 74 years, and among Kansans less than 10 years of age.

Motor Vehicle/Traffic

Figure 17. Motor Vehicle-Related Deaths by Cause
Kansas 1999-2003

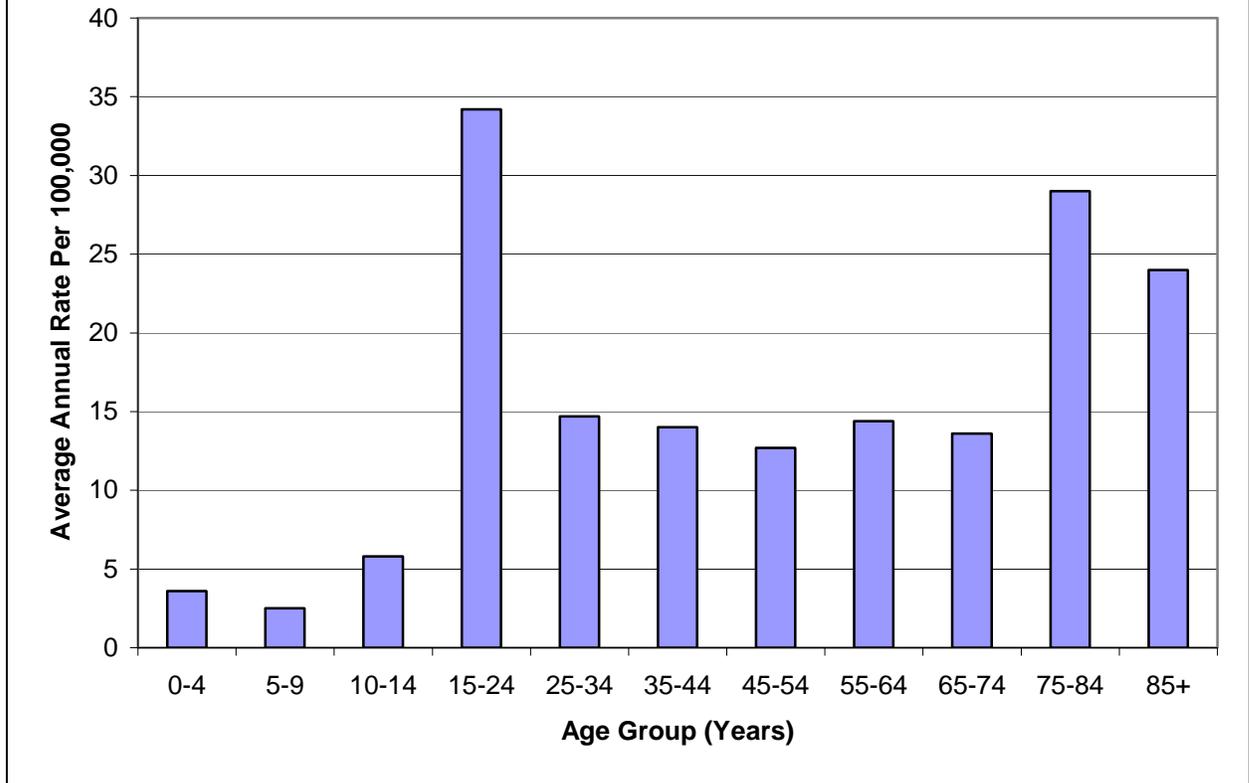


N = 2,508

KDHE, Vital Statistics

- The majority of deaths (2,044) involving motor vehicle crash were among drivers or occupants of motor vehicles.
- Between 1999 and 2003, 546 persons younger than 19 years were killed in motor vehicle-related incidents.
- Motor vehicle-related deaths killed 123 pedestrians in Kansas between 1999 and 2003.

**Figure 18. Motor Vehicle Occupant Death Rate by Age
Kansas 1999-2003**

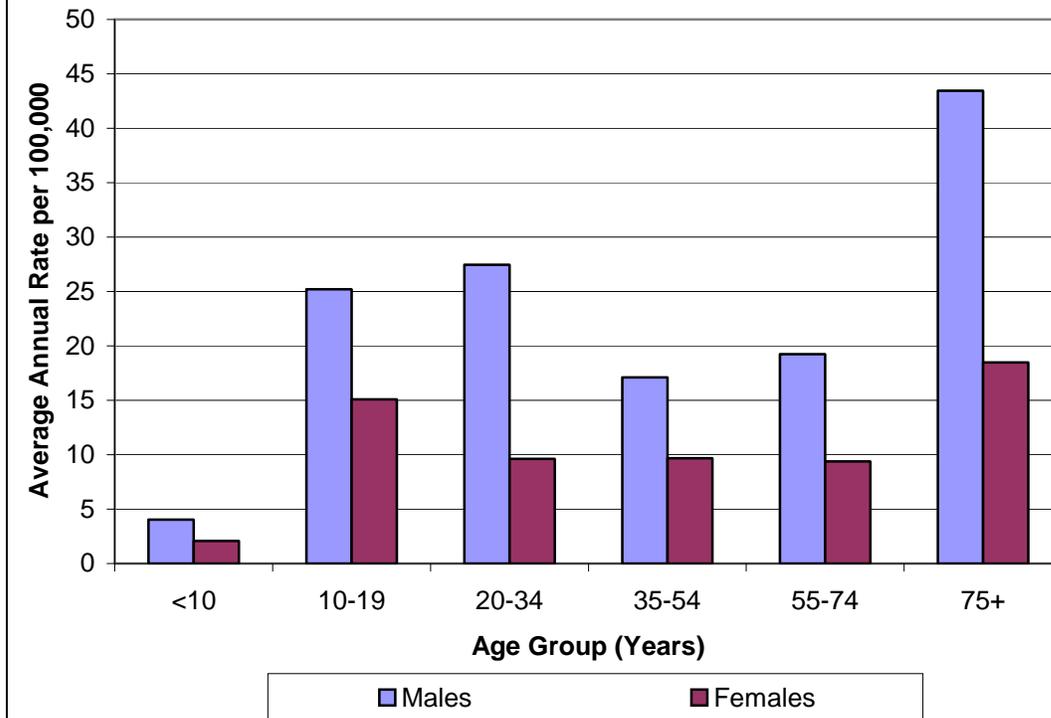


N = 2,044

KDHE, Vital Statistics

- ❑ The highest death rates from motor vehicle crashes occurred among occupants 15 to 24 years and those 75 years and older.
- ❑ A total of 2,044 Kansans were involved in a motor vehicle occupant fatality between 1999 and 2003.
- ❑ Among children under 10 years, 58 of them were involved in a motor vehicle occupant fatality between 1999 and 2003.

**Figure 19. Motor Vehicle Occupant Mortality Rate by Age and Sex
Kansas 1999-2003**

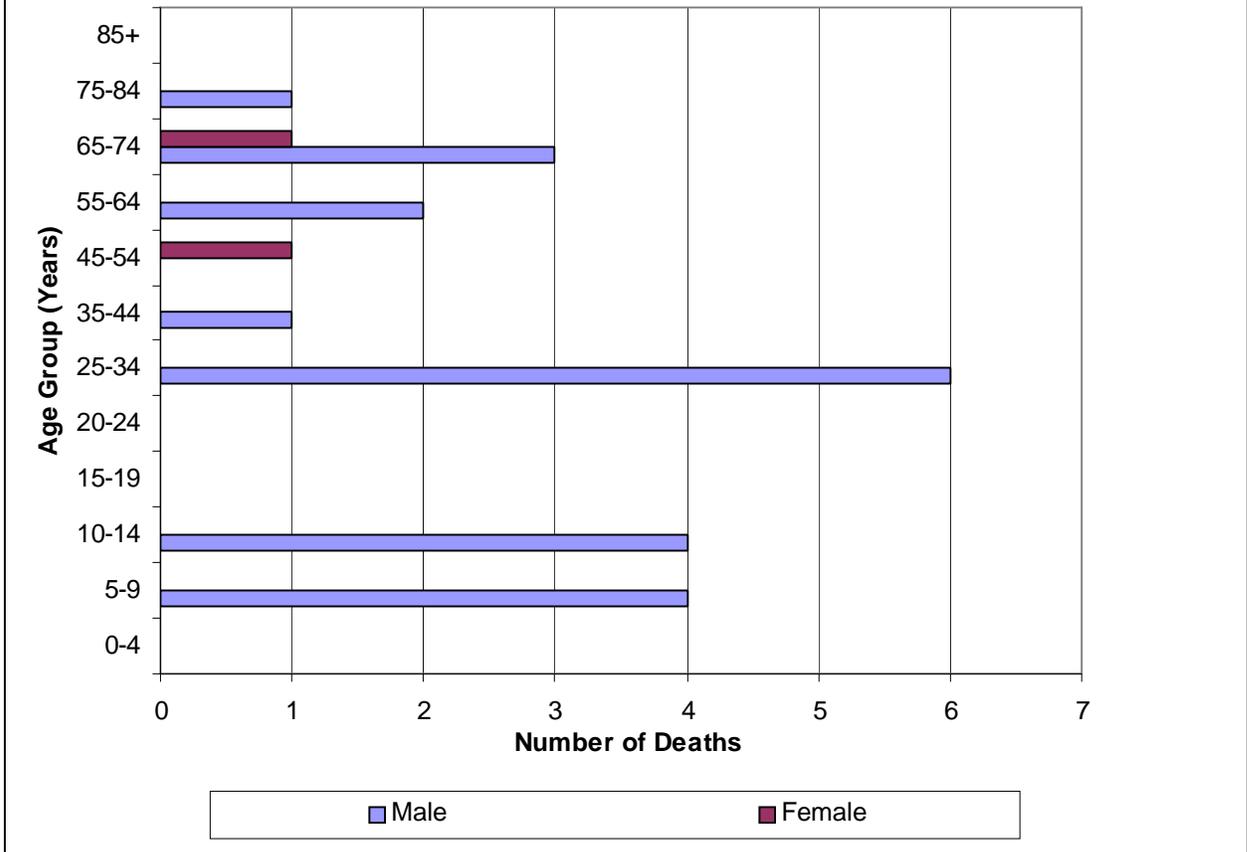


N = 2,044

KDHE, Vital Statistics

- Between 1999 and 2003, 1,353 males and 691 females died as an occupant or driver in a motor vehicle-related crash.
- Among those ages 20 to 34 years, the rate of motor vehicle occupant mortality is approximately three times higher for males than for females.
- The highest motor vehicle occupant mortality rate occurred among adults 75 year and older.

**Figure 20. Pedal Cycle Fatalities Involving a Motor Vehicle
Kansas 1999-2003**

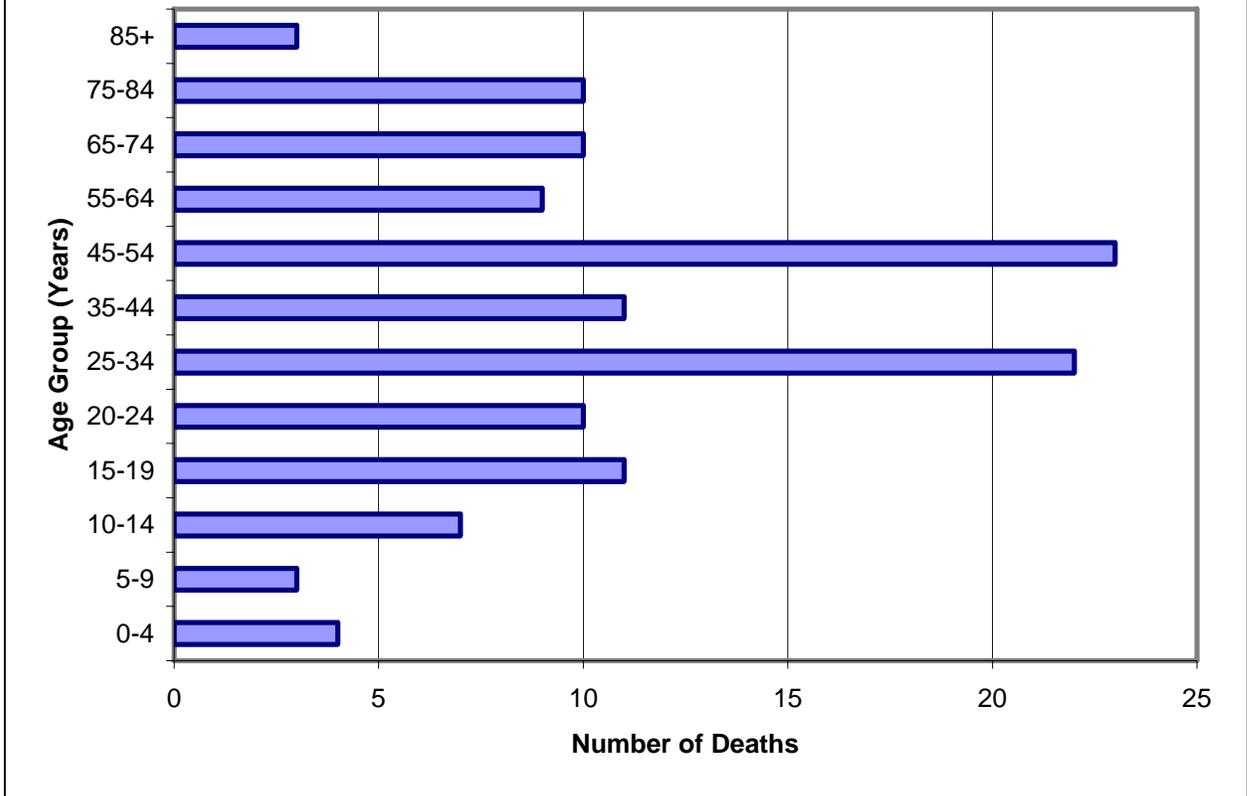


N = 23

KDHE, Vital Statistics

- Between 1999-2003, a total of 21 males and two females died in pedal cycle-related incidents involving a motor vehicle.
- The highest number of deaths occurred between the ages of 25 and 34 years old.

**Figure 21. Pedestrian Fatalities Involving a Motor Vehicle
Kansas 1999-2003**

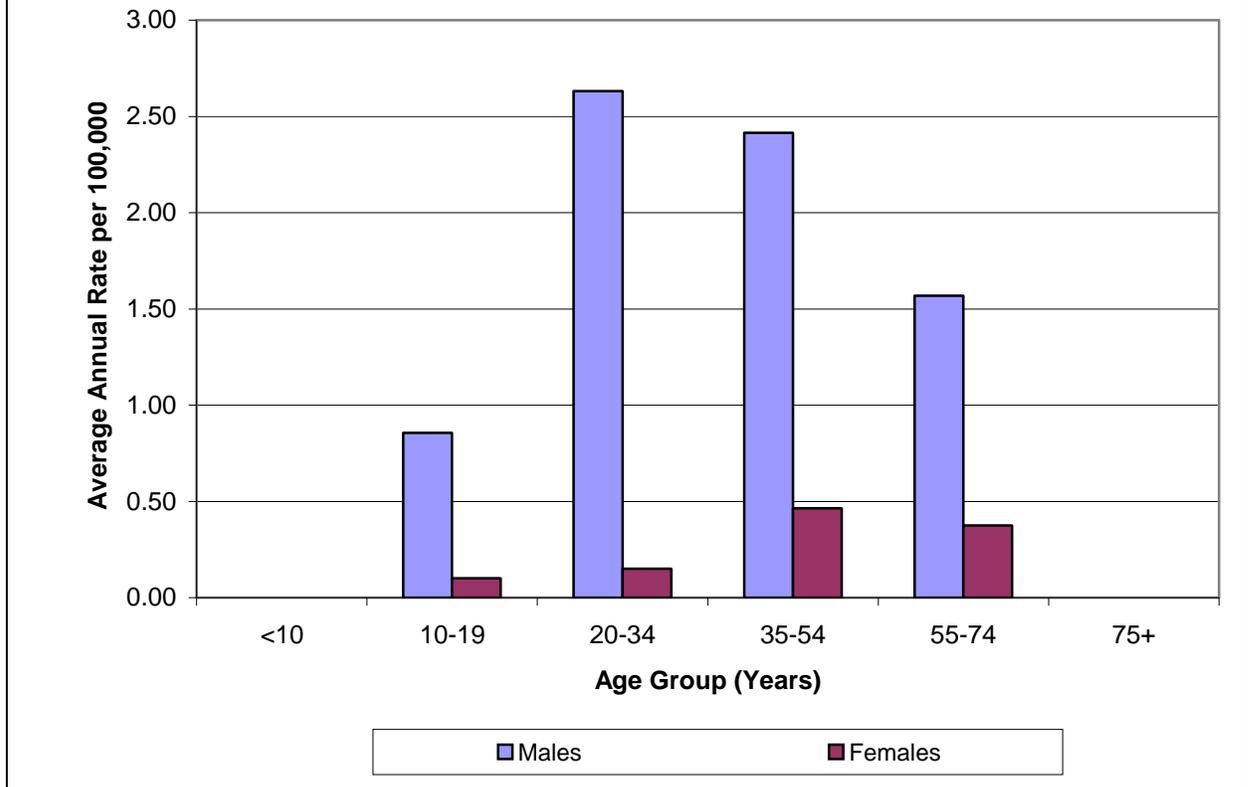


N = 123

KDHE, Vital Statistics

- Between 1999 and 2003, 123 pedestrians were killed after being struck by a motor vehicle.
- The majority of deaths occurred among those between the ages of 20 and 54-years.
- Between 1999 and 2003, seven children under 10 years were killed, as pedestrians, after being struck by a motor vehicle.

**Figure 22. Mortality from Motorcycle Crashes
Kansas 1999-2003**



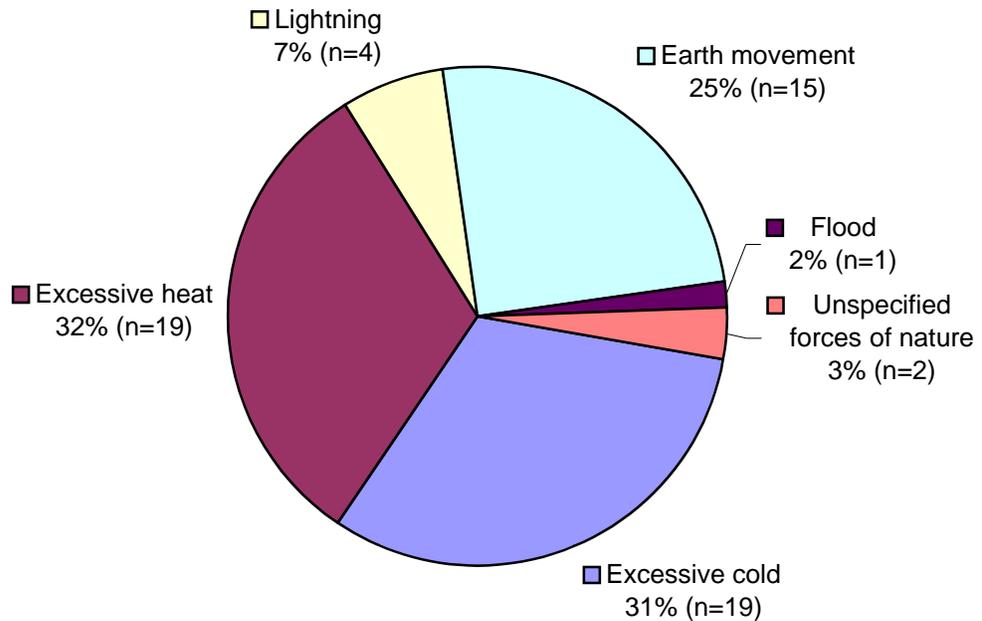
N =124

KDHE, Vital Statistics

- Between 1999 and 2003, 124 Kansans died from a motorcycle traffic crash.
- The rate of motorcycle traffic death is eight times higher among males than among females.
- Among males, the highest rate of motorcycle traffic death occurred among Kansans ages 20 to 34 years; among females, the highest rate occurred among Kansans ages 35 to 54 years.

Environmental Factors

**Figure 23. Mortality by Environmental and Natural Elements
Kansas 1999-2003**



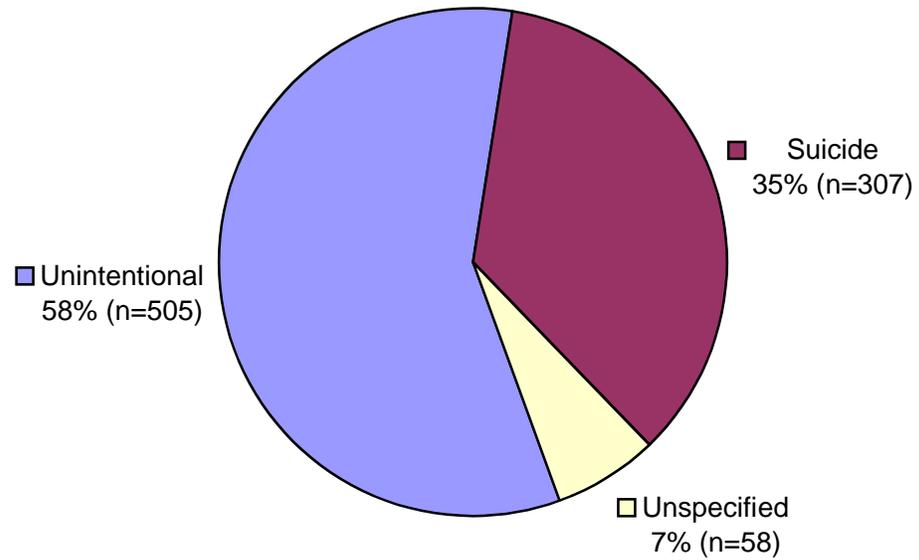
N = 60

KDHE, Vital Statistics

- Between 1999 and 2003, 60 Kansans died as a result of adverse environmental circumstances.
- Sixty-three percent of the deaths in this category were due to excessive heat and excessive cold.
- Earth movement, such as, landslide and mudslide of cataclysmic nature claimed the lives of 15 Kansans between 1999 and 2003.

Poisoning

**Figure 24. Mortality from Poisoning
Kansas 1999-2003**

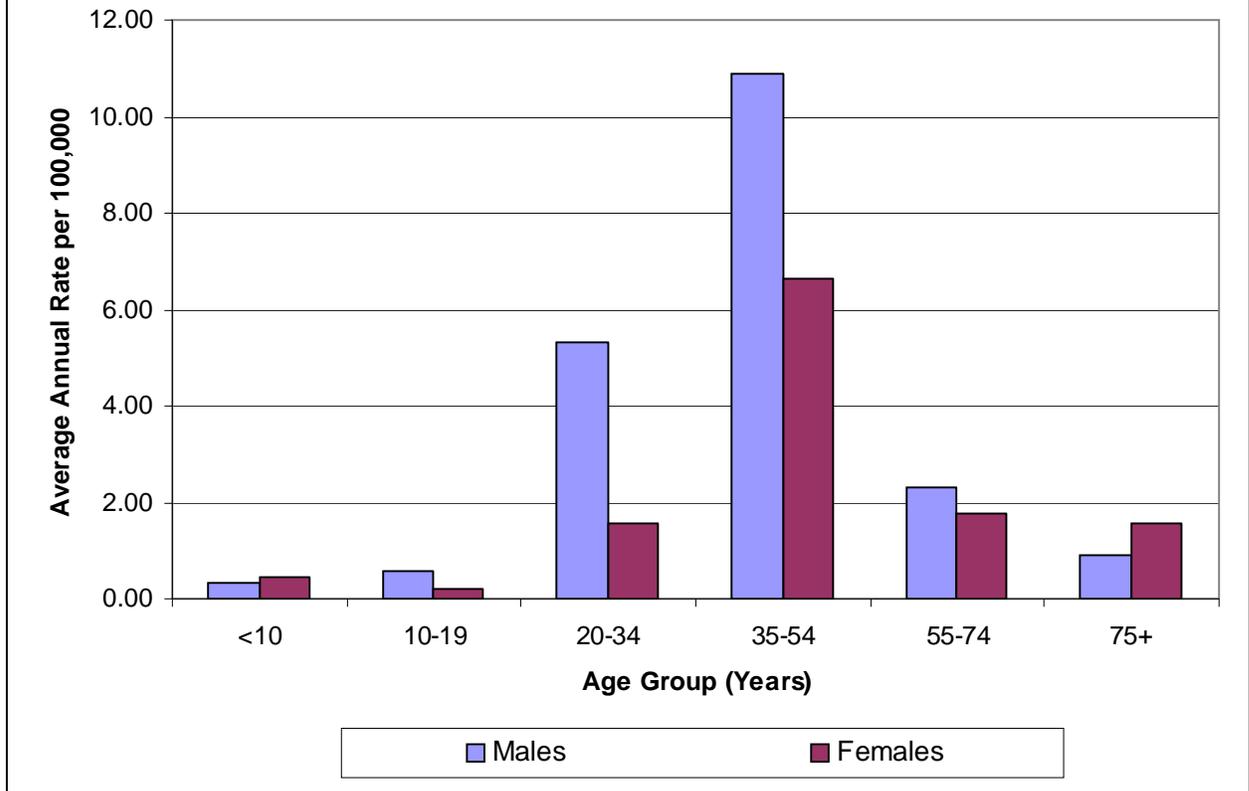


N = 870

KDHE, Vital Statistics

- Between 1999 and 2003, 870 Kansans died as a result of poisoning.
- Of the 870 Kansans who died from poisoning between 1999 and 2003, 58 percent (n=505) were due to unintentional injuries.

**Figure 25. Unintentional Poisoning Mortality Rate by Age and Sex
Kansas 1999-2003**

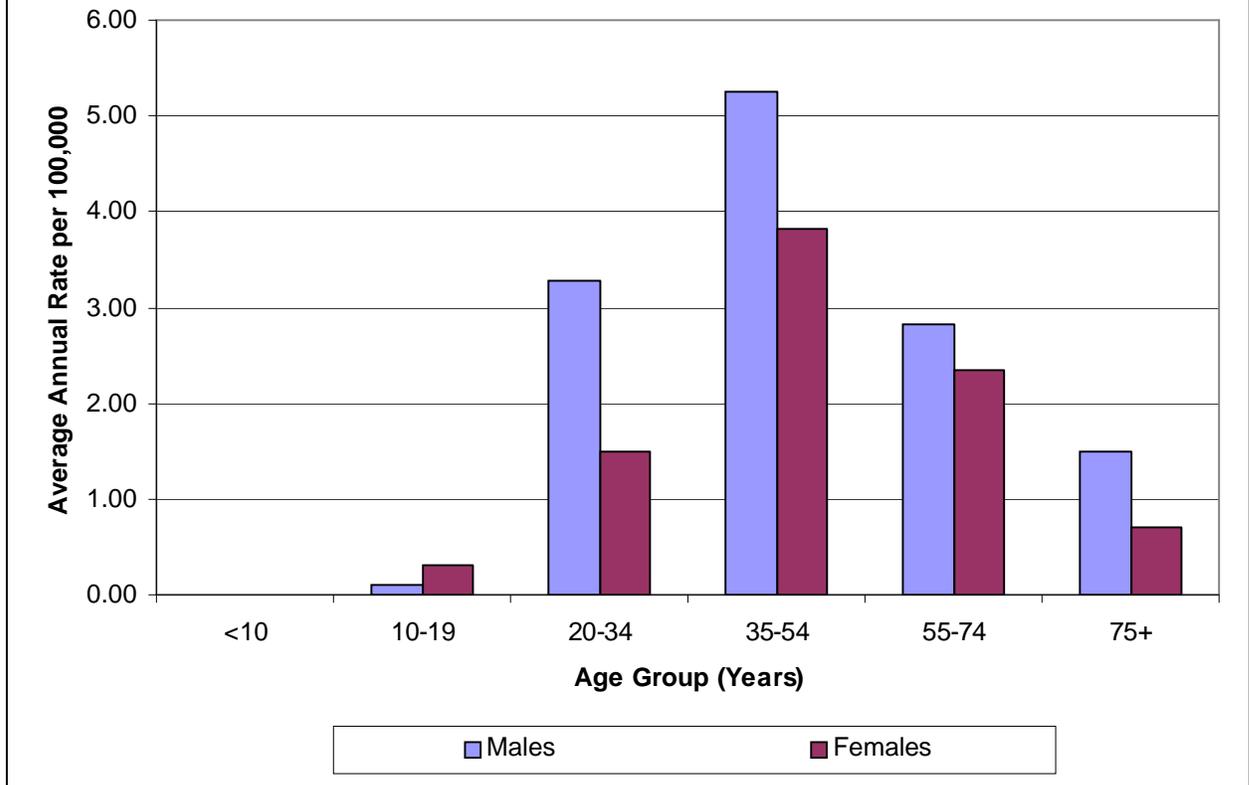


N = 505

KDHE, Vital Statistics

- A total of 505 Kansans died as a result of unintentional poisoning between 1999 and 2003.
- The highest rate of death from unintentional poisoning occurred among Kansans ages 35 to 54 years.

**Figure 26. Suicide Mortality Rate due to Poisoning
Kansas 1999-2003**



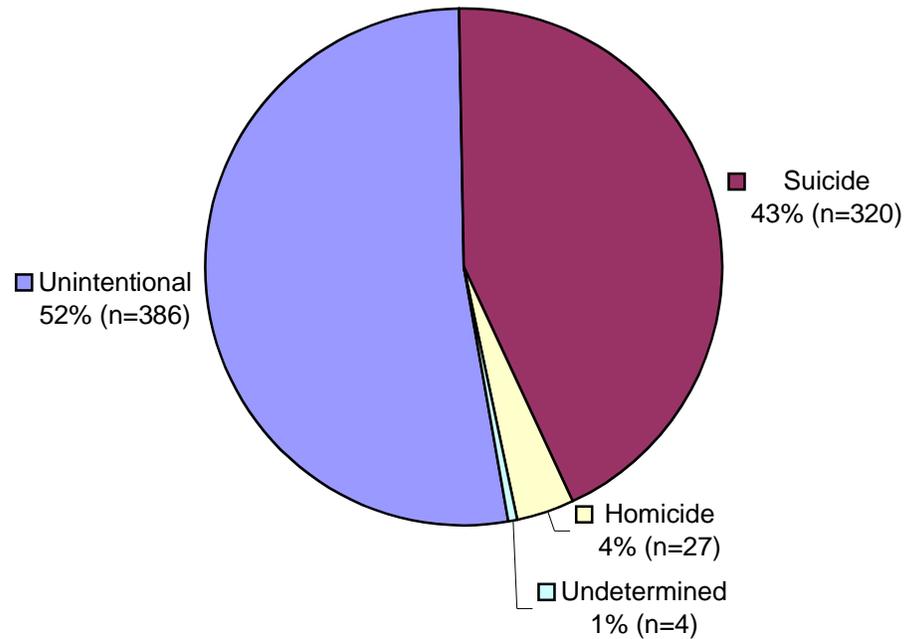
N = 307

KDHE, Vital Statistics

- Between 1999 and 2003, a total of 307 suicides in Kansas were due to poisoning.
- Highest rate of suicide poisoning deaths occurred among Kansans ages 35 to 54 years.
- Among Kansans ages 20 to 34 years, suicide-poisoning mortality was twice as high among males than among females.

Suffocation

**Figure 27. Mortality from Suffocation by Intent
Kansas 1999-2003**

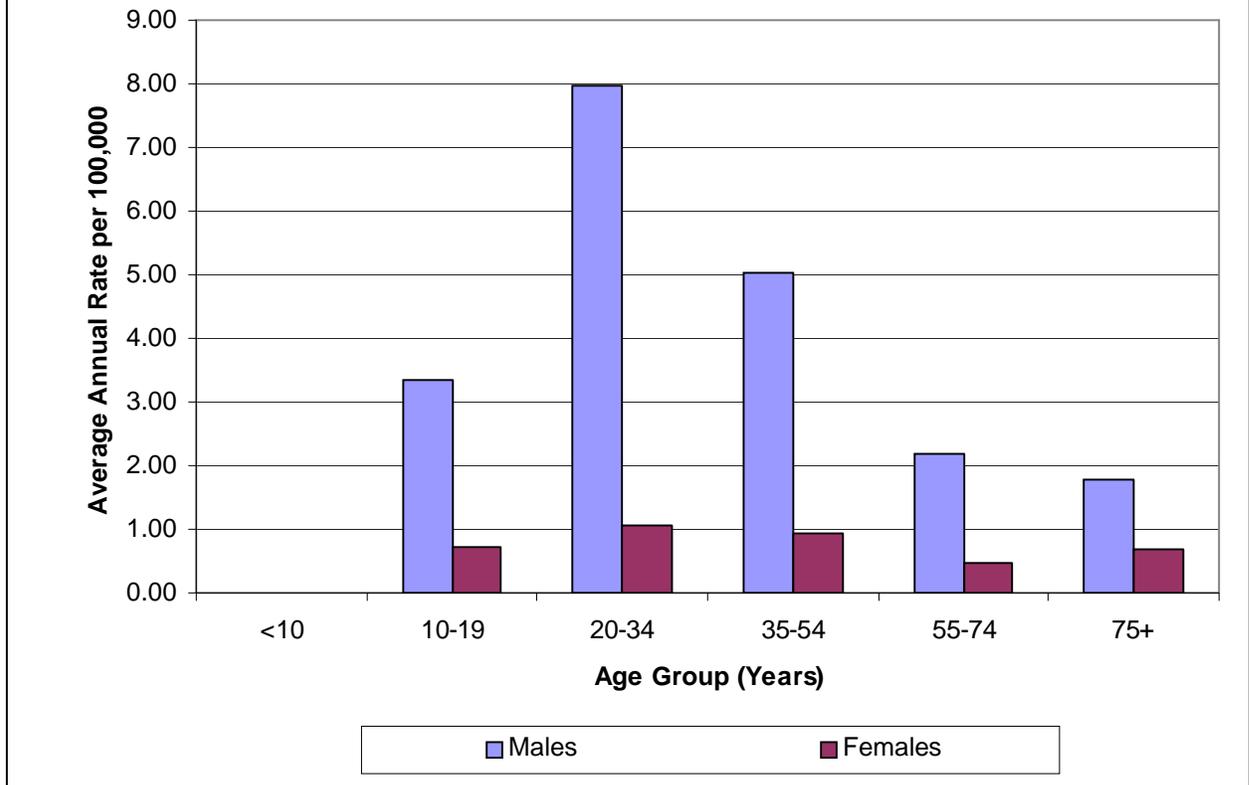


N = 733

KDHE, Vital Statistics

- Majority of suffocation deaths (52 percent) were unintentional.
- Suicides were a large portion of the suffocation deaths (43 percent).

**Figure 28. Suicide Mortality Rate due to Suffocation
Kansas 1999-2003**

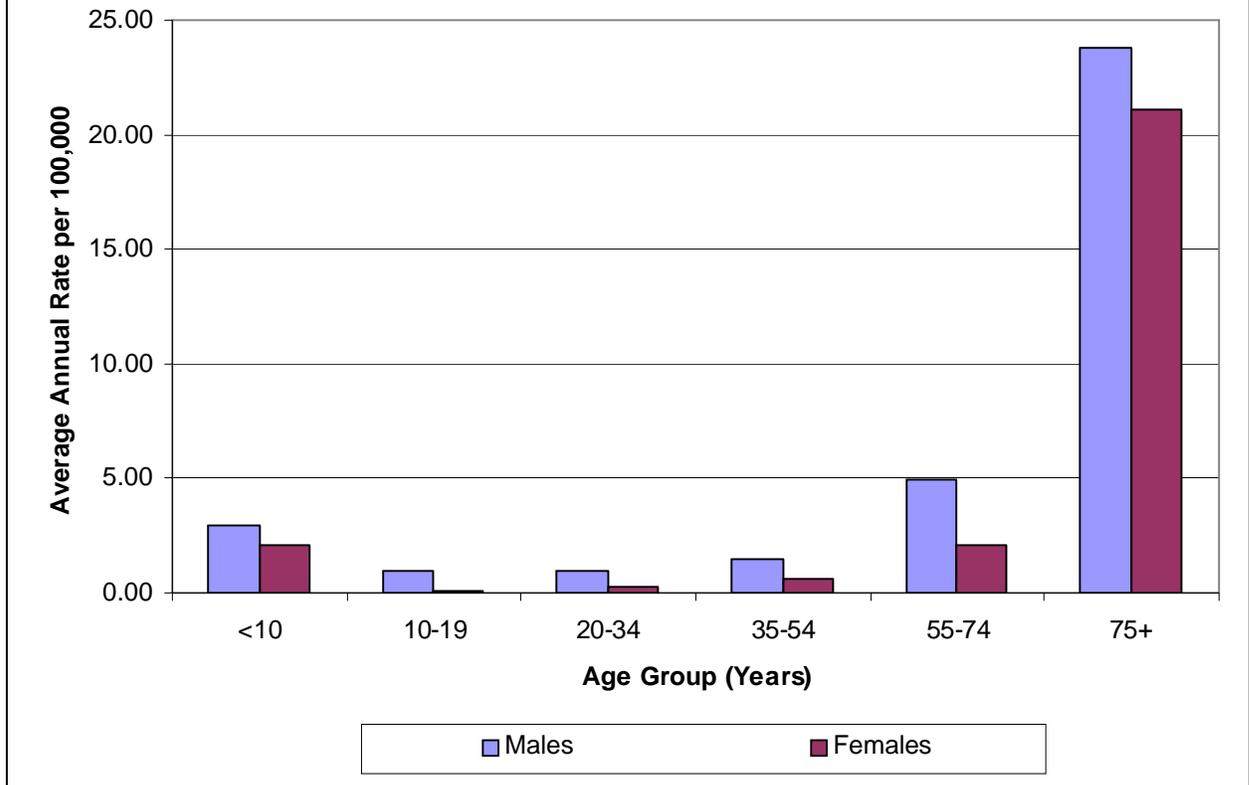


N = 320

KDHE, Vital Statistics

- Between 1999 and 2003, a total of 320 Kansans committed suicide by act of suffocation.
- The rate of suicide death by suffocation is approximately six times higher among males than among females.
- Death from suicide suffocation is highest among male Kansans ages 20 to 34 years (7.96 per 100,000 population).

**Figure 29. Mortality Rate due to Unintentional Suffocation
Kansas 1999-2003**



N = 386

KDHE, Vital Statistics

- A total of 386 Kansans died from unintentional suffocation between 1999 and 2003.
- The rate of unintentional suffocation is highest among Kansans older than 75 years.
- Among Kansans older than 75 years who died from unintentional suffocation, males died at a higher rate than females (3.12 vs. 2.60 per 100,000 population).

Table 1. Number and Average Annual Rate of Injury Deaths per 100,000 population by Mechanism and Intent of Injury, Kansas 1999-2003

Cause/Intent	Unintentional		Suicide		Homicide		Undetermined		Legal/War		Total	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Cut/Pierce	7	0.05	15	0.11	60	0.44	1	0.01	-	-	83	0.62
Drowning	131	0.97	8	0.06	4	0.03	5	0.04	-	-	148	1.10
Fall	919	6.82	14	0.10	-	-	4	0.03	-	-	937	6.95
Fire/Flame	177	1.31	13	0.10	7	0.05	6	0.04	-	-	203	1.51
Hot object/Substance	5	0.04	-	-	-	-	-	-	-	-	5	0.04
Firearm	33	0.24	904	6.70	438	3.25	13	0.10	10	0.07	1398	10.35
Machinery	41	0.30	-	-	-	-	-	-	-	-	41	0.30
Motor Vehicle Traffic	2508	18.60	-	-	-	-	-	-	-	-	2508	18.60
Other Pedal Cyclist	5	0.04	-	-	-	-	-	-	-	-	5	0.04
Other Pedestrian	45	0.33	-	-	-	-	-	-	-	-	45	0.33
Other Land Transport	96	0.71	9	0.07	4	0.03	-	-	-	-	109	0.81
Other Transport	70	0.52	-	-	-	-	-	-	-	-	70	0.52
Natural/Environment	88	0.65	-	-	-	-	-	-	-	-	88	0.65
Overexertion	1	0.01	-	-	-	-	-	-	-	-	1	0.01
Poisoning	505	3.75	307	2.28	-	-	58	0.43	-	-	870	6.45
Struck By/Against	66	0.49	0	0.00	17	0.13	1	0.01	-	-	84	0.62
Suffocation	386	2.86	320	2.37	27	0.20	4	0.03	-	-	737	5.47
Other Specified	88	0.65	12	0.09	25	0.19	6	0.04	-	-	131	0.97
NEC	50	0.37	5	0.04	31	0.23	6	0.04	1	0.01	93	0.69
Not Specified	233	1.73	9	0.07	54	0.40	8	0.06	-	-	304	2.25
Total	5454	40.45	1616	11.98	667	4.95	112	0.83	11	0.08	7860	58.29

Table 2. Number and Average Annual Rate of Injury Deaths per 100,000 population by Mechanism of Injury and Age (Years), Kansas 1999- 2003.

Cause	<10		10-19		20-34		35-54		55-74		75+		Total	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Cut/Pierce	3	0.16	4	0.20	24	0.88	33	0.85	15	0.74	4	0.44	83	0.62
Drowning	33	1.75	16	0.78	37	1.35	35	0.90	17	0.84	10	1.10	148	1.10
Fall	7	0.37	6	0.29	24	0.88	89	2.29	145	7.17	666	73.22	937	6.95
Fire/Flame	39	2.07	12	0.59	22	0.80	47	1.21	47	2.33	36	3.96	203	1.51
Hot object/Substance	0	0.00	0	0.00	1	0.04	2	0.05	1	0.05	1	0.11	5	0.04
Firearm	6	0.32	137	6.70	459	16.77	464	11.94	205	10.14	127	13.96	1398	10.37
Machinery	0	0.00	2	0.10	7	0.26	11	0.28	13	0.64	8	0.88	41	0.30
Motor Vehicle Traffic	74	3.93	472	23.08	640	23.38	667	17.16	361	17.86	294	32.32	2508	18.60
Other Pedal Cyclist	0	0.00	2	0.10	0	0.00	3	0.08	0	0.00	0	0.00	5	0.04
Other Pedestrian	7	0.37	6	0.29	4	0.15	11	0.28	5	0.25	12	1.32	45	0.33
Other Land Transport	6	0.32	12	0.59	30	1.10	28	0.72	21	1.04	12	1.32	109	0.81
Other Transport	2	0.11	1	0.05	14	0.51	31	0.80	21	1.04	1	0.11	70	0.52
Natural/Environment	8	0.42	2	0.10	9	0.33	19	0.49	19	0.94	31	3.41	88	0.65
Overexertion	0	0.00	0	0.00	1	0.04	0	0.00	0	0.00	0	0.00	1	0.01
Poisoning	7	0.37	12	0.59	171	6.25	555	14.28	103	5.10	22	2.42	870	6.45
Struck By/Against	6	0.32	1	0.05	13	0.47	31	0.80	23	1.14	10	1.10	84	0.62
Suffocation	55	2.92	60	2.93	149	5.44	163	4.19	98	4.85	212	23.31	737	5.47
Other Specified	25	1.33	7	0.34	23	0.84	48	1.23	18	0.89	10	1.10	131	0.97
NEC	4	0.21	3	0.15	14	0.51	25	0.64	19	0.94	28	3.08	93	0.69
Not Specified	12	0.64	5	0.24	22	0.80	44	1.13	46	2.28	175	19.24	304	2.25
Total	294	15.60	760	37.16	1664	60.80	2306	59.33	1177	58.23	1659	182.39	7860	58.29

Appendix: External Cause of Injury Mortality Matrix for ICD-10.

External Cause of Injury Mortality Matrix for ICD-10						
Mechanism	Intent					
	All Injury	Unintentional	Suicide	Homicide	Undetermined	Legal Intervention/War
All Injury	V01-Y36, Y85-Y87, Y89, *U01-U03	V01-X59, Y85-Y86	X60-X84, Y87.0, *U03	X85-Y09, Y87.1, *U01-U02	Y10-Y34, Y87.2, Y89.9	Y35-Y36, Y89 (.0.1)
Cut/Pierce	W25-W29, W45, X78, X99, Y28, Y35.4	W25-W29, W45	X78	X99	Y28	Y35.4
Drowning	W65-W74, X71, X92, Y21	W65-W74	X71	X92	Y21	
Fall	W00-W19, X80, Y01, Y30	W00-W19	X80	Y01	Y30	
Fire/hot object or substances	X00-X19, X76-X77, X97-X98, Y26-Y27, Y36.3, *U01.3	X00-X19	X76-X77	X97-X98, U*01.3	Y26-Y27	Y36.3
Fire/Flame	X00-X09, X76, X97, Y26	X00-X09	X76	X97	Y26	
Hot Objects/substances	X10-X19, X77, X98, Y27	X10-X19	X77	X98	Y27	
Firearm	W32-W34, X72-X74, X93-X95, Y22-Y24, Y35.0, *U01.4	W32-W34	X72-X74	X93-X95, *U01.4	Y22-Y24	Y35.0
Machinery	W24, W30-W31	W24, W30-W31				
All Transport	V01-v99, x82, y03, y32,y36.1, *u01.1		X82	Y03, *U01.1	Y32	Y36.1
Motor Vehicle Traffic						
Occupant	V30-V39 (4-9)	V30-V39 (4-9)				
	V40-V49 (4-9)	V40-V49 (4-9)				
	V50-V59 (4-9)	V50-V59 (4-9)				
	V60-V69 (4-9)	V60-V69 (4-9)				
	V70-V79 (4-9)	V70-V79 (4-9)				
	V83-V86 (0-.3)	V83-V86 (0-.3)				
	V20-V28 (3-.9), V29 (4-9)	V20-V28 (3-.9), V29 (4-9)				
Motorcyclist						
Pedal Cyclist	V12-V14 (3-.9), V19 (4-9)	V12-V14 (3-.9), V19 (4-9)				
Pedestrian	V02-V04 (1-.9) V09.2	V02-V04 (1-.9) V09.2				
Other	V80 (3-.5), V81.1, V82.1	V80 (3-.5), V81.1, V82.1				
Unspecified	V87 (0-.8), V89.2	V87 (0-.8), V89.2				
Pedal cyclist, Other	V10-V11, V12-V14 (0-.2)	V10-V11, V12-V14 (0-.2)				
	V15-V18, V19 (0-.3, .8, .9)	V15-V18, V19 (0-.3, .8, .9)				
Pedestrian, Other	V01, V02-V04 (0), V05, V06, V09 (0.,1.,3.,9)	V01, V02-V04 (0), V05, V06, V09 (0.,1.,3.,9)				

Appendix: External Cause of Injury Mortality Matrix for ICD-10 Cont'd.

	All Injury	Unintentional	Suicide	Homicide	Undetermined	Legal Intervention/War
Mechanism						
Other land transport	V20-V28 (0.-2), V29 (0.-3)	V20-V28 (0.-2), V29 (0.-3)				
	V30-V39 (0-3)	V30-V39 (0-3)				
	V40-V49 (0-3)	V40-V49 (0-3)				
	V50-V59 (0-3)	V50-V59 (0-3)				
	V60-V69 (0-3)	V60-V69 (0-3)				
	V70-V79 (0-3)	V70-V79 (0-3)				
	V80 (0-2, 6-9)	V80 (0-2, 6-9)				
	V81-V82 (0.-2.-9)	V81-V82 (0.-2.-9)				
	V83-V86 (4.-9)	V83-V86 (4.-9)				
	V87.9	V87.9				
	V88 (0.-9)	V88 (0.-9)				
Other transport	V89 (0.-1 .3.-9), X82, Y03, Y32	V89 (0.-1 .3.-9)	X82	Y03	Y32	
Natural/ Environment	V90-V99, Y36.1, *U01.1	V90-V99		*U01.1		Y36.1
	W42, W43, W53-W64	W42, W43, W53-W64				
	W92-W99, X20-X39, X51-X57	W92-W99, X20-X39, X51-X57				
Overexertion		X50				
Poisoning	X40-X49, X60-X69, X85-X90, Y10-Y19, Y35.2, *U01(6.-7)	X40-X49	X60-X69	X85-X90, *U01.6-.7	Y10-Y19	Y35.2
Struck by or against	W20-W22, W50-W52, X79, Y00, Y04, Y29, Y35.3	W20-W22, W50-W52	X79	Y00-Y04	Y29	Y35.3
Suffocation	W75-W84, X70, X91, Y20	W75-W84	X70	X91	Y20	
Other specified, classified	W23, W35-W41, W44, W49, W85-W91, Y85	W23, W35-W41, W44	X75, X81, *U03.0	X96, Y02, Y05-Y07		
	X75, X81, X96, Y02, Y05-Y07, Y25, Y31	W49, W85-W91, Y85		*U01.0.2.,.5		
	Y35 (1.,.5), Y36(0.,.2.,.4.-8), *U01.0., 2., .5, *U03.0					
Other specified, nec	X58, Y86, X83, Y87.0, Y08, Y87.1, Y33, Y87.2, Y35.6, Y89 (0.1), *U01.8, *U02	X58, Y86	X83, Y87.0	Y08, Y87.1, *U01.8, *U02	Y33, Y87.2	Y35.6, Y89 (0.1)
Unspecified	X59, X84, Y09, Y34, Y89.9, Y35.7, Y36.9, *U01.9, *U03.9	X59	X84, *U03.9	Y09, *U01.9	Y34, Y89.9	Y35.7 Y36.9
Adverse effects	Y40-Y59, Y60-Y84, Y88					
Drugs	Y40-Y59, Y88.0					
Medical Care	Y60-Y84, Y88 (1.-3)					

Appendix: External Cause of Injury Mortality Matrix for ICD-10 Cont'd.

Mechanism	All Injury	Unintentional	Suicide	Homicide	Undetermined	Legal Intervention/ War
ICD-10 Transportation Codes						
All Motor Vehicle Accidents combine motor vehicle traffic and non-traffic						
Motor vehicle accidents codes are equivalent to codes in the NCHS I13 Cause of death list						
Motor vehicle accidents						
Motor Vehicle traffic						
Occupant	V30-39 (4-9)					
Occupant	V40*					
Occupant	V50*					
Occupant	V60*					
Occupant	V70*					
Occupant	V83-V86 (0-3)					
Motor cyclist	V20-V28 (3-9), V29 (4-9)					
Pedal cyclist	V12-V14 (3-9), V19 (4-6)					
Pedestrian	V02-V04 (1, 9), V09,2					
Other	V80 (3-5), V81.1, V82.1					
Unspecified	V87 (0-8), V89,2					
Motor Vehicle non-Traffic						
Pedestrian, mv-nt	V09.0, V02-V04 (0)					
Pedal cyclist, mv-nt	V12-V14 (0-2), V19 (0-2)					
Other mv-nt	V20-V28 (0-2), V29 (0-3)					
	V30-V39 (0-3)					
	V40-V49 (0-3)					
	V50-V59 (0-3)					
	V60-V69 (0-3)					
	V70-V79 (0-3)					
	V81.0, V82.0					
	V83-V86 (4-9)					
	V88 (0-8)					
	V89.0					
Other land transport						
Pedestrian, non-motor vehicle	V01, V05, V06, V09 (1, 3, 9)					
Pedal cyclist, non-motor vehicle	V10, V11, V15-V18, V19 (3, 8, 9)					
Animal rider or occupant of animal drawn vehicle	V80 (0-2, 6-9)					
Occupant of railway train or railway vehicle	V81 (2-9)					
Occupant of streetcar	V82 (2-9)					
Other and unspecified	V87-V88 (9), V89 (1, 3, 9), X82, Y03, Y32					

Appendix: External Cause of Injury Mortality Matrix for ICD-10 Cont'd.

	All Injury	Unintentional	Suicide	Homicide	Undetermined	Legal Intervention/ War
Other Transport						
Accidents to or on watercraft (other than drowning)	V91-, V93					
Transport-related drowning	V90, V92					
Other & unspecified water transport accidents	V94					
Air and space transport accidents	V95-V97					
Other and unspecified transport accidents	V98-V99, Y36.1, *U01.1					

Source: Center for Disease Control and Prevention. (2006). ICD-10 Framework for Presenting Injury Mortality Data – External Cause, 2002. Retrieved February 9, 2006, from http://www.cdc.gov/nchs/data/ice/iced10_transcode.pdf

This publication was supported by U17/CCU724763-01 from the Centers for Disease Control and Prevention (CDC). Its contents are solely the responsibility of the authors and do not represent the official views of the CDC.