

## Poisoning Deaths of Kansas Residents Due to Drugs, 2009-2013

Nationwide, deaths from drug overdose have been rising steadily for the past two decades and have become the leading cause of injury death in the United States. In 2012, there were 41,502 drug overdose deaths in the United States, and in 2011 drug overdoses were involved in about 2.5 million emergency department visits. Opioid analgesics, one of the most commonly abused groups of drugs, cost the country about \$55.7 billion in 2007 [1]. Kansas’ experience parallels that of the nation: hospitalizations for drug poisonings increased by almost threefold from 1999 to 2009, and resident deaths due to opioid analgesics rose almost threefold from 1999 to 2010 [2]. The Healthy People 2020 target (SA-12) for drug-induced deaths is 11.3 deaths per 100,000 population (age-adjusted), a decline of ten percent from the 2007 baseline of 12.6 per 100,000 [3].

### Methods

All deaths for which the underlying cause of death was some form of poisoning by drugs were selected from the Kansas Vital Records database. The core group of drug poisoning deaths examined by this report are those defined by the Injury Surveillance Workgroup 7 [4] as “acute poisonings due to the effects of drugs,” including the following ICD-10 codes: [F11 - F16] (.0), F19.0, X40-X44, X60-X64, X85, or Y10-Y14. The individual codes in these groups indicate intentionality (accidental, self-inflicted, assault, or undetermined intent) and broad classes of drugs. More briefly, this report also examines a broader category of drug poisoning deaths defined by the Injury Surveillance Workgroup, “acute or chronic poisonings due to the effects of drugs,” including the following ICD-10 codes: D52.1, D59 (.0, .2), D61.1, D64.2, E06.4, E16.0, E23.1, E24.2, E27.3, E66.1, F11-F16, F19, G21.1, G24.0, G25 (.1, .4, 6), G44.4, G62.0, G72.0, I95.2, J70 (.2-.4), K85.3, L10.5, L27 (.0, .1), M10.2, M32.0, M80.4, M81.4, M83.5, M87.1, R50.2, X40-X44, X60-X64, X85, Y10-Y14, or Y40-Y59.

In records for which the underlying cause of death was poisoning by drugs, the fields for contributing causes of death were searched for codes for those drugs and classes of drugs included in CDC guidelines [5] for reporting drug overdose deaths: T40.1 (heroin), T40.2-T40.4 (opioid analgesics), T40.5 (cocaine), T40.6 (other and unspecified narcotics), T42.4 (benzodiazepines), T43.6 (psychostimulants with abuse potential, including methamphetamine), all other codes in the T36-T50.8 range (other specified drugs), and T50.9 (other and unspecified drugs). Drug codes in records for which the underlying cause of death was not

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poisoning are mentioned only in passing.

While there can only be one underlying cause of death, there can be up to twenty listed contributing causes for a single death. Some of the deaths included in this analysis had multiple drugs in their lists of contributing causes, while others had explicit statements that multiple drugs were contributing factors, but no detailed lists of the drugs involved. Since the number of deaths due to any particular drug or class of drug in any given year is relatively small, multi-year death rates were used when analyzing demographic factors.

## Results

During the 2009-2013 period, drugs played a role in the deaths of 1,995 Kansas residents. Of these, 1,475 fall under the Injury Surveillance Workgroup (ISW) definition of acute poisoning due to drugs, and 104 made up the remainder of the larger ISW category, acute or chronic poisoning due to drugs. There were an additional 416 deaths in the period where drugs were a contributing cause, though they were not the underlying cause of death (Table 1). (An additional 254 Kansas residents – not included in the 1,995 total above – died from the adverse effects of alcohol, carbon monoxide and other substances not intended for therapeutic use.)

Table 1. All Drug-related Deaths by Cause of Death, by Year, Kansas Residents, 2009-2013

Underlying cause of death	2009	2010	2011	2012	2013	Total
Acute poisoning by drugs	297	274	277	298	329	1,475
Other poisoning by drugs	13	20	24	21	26	104
Drugs as a contributing cause only	79	84	80	67	106	416
Total	389	378	381	386	461	1,995

During the 2009-2013 period, the three leading contributing causes in acute poisoning deaths were unspecified drugs (T50.9), opioid analgesics (T40.2-T40.4), and psychostimulants (T43.6) (Table 2). An examination of the literal cause of death data supplied by physicians and coroners revealed that the unspecified drugs code usually (in 536 of 858 deaths) indicated multi-drug toxicity, without further specification of the drugs involved.

Table 2. Deaths by Acute Poisoning Due to Drugs, by Contributing Cause, by Year, Kansas Residents, 2009-2013

Underlying cause of death	2009	2010	2011	2012	2013	Total
All acute drug poisonings	297	274	277	298	329	1,475
Contributing causes of death						
Heroin	10	8	7	14	12	51
Opioid analgesics	127	94	100	142	143	606
Cocaine	13	12	13	10	9	57
Other narcotics	8	7	5	4	6	30
Benzodiazepines	11	6	7	16	25	65
Psychostimulants (includes amphetamines)	15	17	19	25	34	110
Other specified drugs	16	16	16	22	25	95
Unspecified drugs	179	160	171	150	198	858

Multiple drugs, or one drug and alcohol accounted for 1,028 or 69.7 percent of all acute drug poisoning deaths in the 2009-2013 period. Of the 1,028 deaths, 536 involved more than one drug, but the type of drug was not specified. Multiple drugs or a drug and alcohol were specified in the remaining 492 deaths.

The death rate (age-adjusted to the US 2000 standard population) for all acute drug poisoning deaths was 11.6 per 100,000 population for males, and 9.6 per 100,000 population for females. For unspecified drugs, age-adjusted death rates were the same for males and 6.2 per 100,000 population for females. For opioid analgesics, age-adjusted death rates were higher for males than for females (5.1 versus 3.8 per 100,000 population). For psychostimulants, age-adjusted death rates were also higher for males than for females (1.1 versus 0.6 per 100,000 population).

The age-adjusted death rate from acute drug poisoning was 11.7 per 100,000 population for White non-Hispanics, 8.1 for Black non-Hispanics, and 4.8 for Hispanics. By raw count, most decedents were White non-Hispanic (1,286 out of 1,475).

Age-adjusted death rates for most contributing causes were higher for White non-Hispanics than for Black non-Hispanics and Hispanics. The principal exception was cocaine, for which the age-adjusted death rate was 0.3 for White non-Hispanics, 2.4 for Black non-Hispanics, and 0.7 for Hispanics.

Age-specific death rates were highest for the 45-54 age-group (23.5 per 100,000 age-group population) and the 35-44 age-group (19.5), and lowest for the 5-14 age-group (0.2) and the 1-4 age-group (0.4). For the 55-64 and 65-75 age-groups, "other specified drugs" replaced psychostimulants as the third leading contributing cause of death, and for the under-one-year and 85-and-over age-groups "other specified drugs" was the leading contributing cause of death.

Approximately one-half (53.6%) of Kansas residents who died from acute drug poisoning in the 2009-2013 period lived in counties in the urban peer group [6]. The age-adjusted death rate for the period was highest (11.9 per 100,000 population) for counties in the semi-urban peer group, and lowest (8.1 per 100,000 population) for counties in the frontier peer group, but the difference was not statistically significant.

The leading manner of death (as indicated by the underlying cause of death) due to acute drug poisoning in the 2009-2013 period was accidental (73.8%), followed by suicide (17.3%), undetermined (8.6%), and assault (0.2%).

## Discussion

Kansas resident deaths due to acute drug poisoning have risen during the 2009-2013 period, but since confidence intervals for the annual age-adjusted death rates overlap statistical significance of the differences cannot be determined. Nevertheless, the age-adjusted death rates for acute drug poisoning for Kansas residents (10.6 deaths per 100,000 population) remains lower (better) than the Healthy People 2020 target of 11.3

deaths per 100,000 population. Demographic analyses indicate that Kansans who died of acute drug poisoning were likely to be middle-aged, white, semi-urban or urban men.

The opioid analgesics code covers a range of natural, semi-synthetic, and synthetic opium derivatives, the most common of which in the literal cause of death data were morphine, methadone, oxycodone, hydrocodone, and fentanyl. The psychostimulant codes were usually accompanied by literal cause of death data indicating methamphetamine or amphetamine.

The high percentage of deaths involving multiple drugs or at least one drug plus alcohol suggests recreational drug use, but for the majority of cases it was impossible to tell whether the drug involved was obtained legally or illegally, or (if obtained legally) whether it was used in accordance with a physician's instructions.

Mortality findings are subject to at least two limitations. While most of the Kansas deaths involving drugs have been accidental, the death certificate does not collect enough information to determine why the decedents were taking drugs. While coding of mortality is consistent, the system cannot take into account individual differences among physicians completing the cause of death information. More detailed reporting on death certificates would reduce the incidence of multi-drug toxicity wherein the involved drugs are not listed.

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## Adequacy of Prenatal Care Reported for 2013

Facilitating healthy pregnancies and positive birth outcomes pays dividends to Kansas society in the form of reduced maternal and infant mortality and of children capable of learning and growing into productive members of society. It is in this role that the Kansas Department of Health and environment (KDHE), through the Division of Public Health's Bureau of Epidemiology and Public Health Informatics (BEPHI), provides this report, in order that progress in the provision of adequate prenatal care can be monitored [1]. Prenatal care is a flexible package of services for pregnant women up to the delivery of an

infant. Inadequate prenatal care has been associated with pre-term delivery, low birth weight, and small-for-gestation infants [2, 3]. It has also been linked with a higher overall net cost per pregnancy for mother and newborn care combined [4].

Using birth certificate information, KDHE calculates the Adequacy of Prenatal Care Utilization (APNCU) using methods developed by Dr. Milton Kotelchuck. In 2013, the APNCU index was calculated for 38,488 Kansas resident live births, representing 99.2 percent of the 38,805 births reported. About 81.9 percent of mothers received adequate or better prenatal care\*, including 30.5 percent with adequate-plus care. This level of adequate or better prenatal care meets the target established by Healthy People 2020 (77.6%). Approximately 18 percent (18.1%) received less than adequate prenatal care†: 11.4 percent inadequate care and 6.7 percent intermediate care.

Other findings:

- Among mothers whose prenatal care utilization was classified as inadequate (4,383), the vast majority (94.5% or 4,141) were due to late initiation of care. Only a minority of women (242) who initiated their care within the first four months of pregnancy received inadequate care.
- Among mothers of infants with low birth weight, 83.7 percent received adequate or better care, while 13.9 percent experienced inadequate care.
- The proportion of mothers who received adequate or better prenatal care was highest among White non-Hispanics (85.9%), followed by Asian/Pacific Islander non-Hispanics (81.4%), Other non-Hispanics (72.6%) and Black non-Hispanics (72.0%). The population group with the lowest percent was Hispanics, with 69.7 percent receiving adequate or better prenatal care.
- The proportion of mothers reporting inadequate care was highest among Hispanics (19.3%) and Black non-Hispanics (18.1%). These rates are more than twice that of White non-Hispanic women, who experienced inadequate care at a rate of 8.8 percent.
- Among the 4,383 mothers who received inadequate prenatal care, 51.9 percent were paid by Medicaid, 22.2 percent by private insurance and 17.2 percent were self-pay.
- Fewer mothers (9.5%) received inadequate care when delivering their first-born infant than mothers delivering their second- or higher-born infant (12.5%).
- A trend analysis showed a significant increasing trend in less than adequate prenatal care from 1998 to 2007 in Kansas and a significant decreasing trend from 2007 to 2013.
- Analysis by county revealed the percentage of mothers receiving less than adequate care was significantly higher than the state percentage in 15 counties.

The full report can be found at: <http://www.kdheks.gov/phi/index.htm>.

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\*Adequate or better prenatal care: combines Adequate + Adequate plus categories.

†Less than adequate prenatal care: combines intermediate and inadequate categories.

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## Announcements

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### BEPHI Submission Highlighted in CDC MMWR

A submission from KDHE Bureau of Epidemiology and Public Health Informatics (BEPHI) was published by the Centers for Disease Control and Prevention (CDC) in the December 19, 2014 issue of *Morbidity and Mortality Weekly Report* (MMWR). The Contributors included State Epidemiologist Charlie Hunt and epidemiologists Sheri Tubach and Lindsey Webb. The report highlights an outbreak of cryptosporidiosis that occurred in April 2013 following the response to a rollover of a tractor-trailer carrying approximately 350 pre-weaned calves.

*Cryptosporidium* is a diarrheal illness. Transmission is fecal-oral and can occur through ingestion of contaminated recreational water, untreated drinking water, or food; or by contact with infected persons or animals, most notably pre-weaned calves. Contact with livestock, particularly young calves, is a risk factor for zoonotic transmission recognized by health professionals and animal industry workers; however, professional and volunteer emergency responders might be less aware of the potential risk. This outbreak is the first report of both law enforcement and volunteer emergency responders becoming infected with *Cryptosporidium* for which only direct contact with animals and their feces was identified as the source of transmission.

This outbreak highlights the need for awareness of zoonotic transmission among those handling calves, including emergency responders. Education of responders is important to prevent future outbreaks of zoonoses that might result from agricultural emergencies.

Read the report at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6350a1.htm>.

### BEPHI 2013 Infant Mortality Report Published

A detailed report on the state's resident infant deaths in 2013 was published in December 2014 by the Bureau of Epidemiology and Public Health Informatics (BEPHI). The report, *Selected Special Statistics – Stillbirths and Infant Deaths, Kansas, 2013*, provides detailed analyses of trends in infant mortality, full breakout of the demographics, health



characteristics, and causes of death for the infants in a linked birth-death cohort. The report is available at: [http://www.kdheks.gov/hci/IMR/2013\\_IMR\\_REPORT.pdf](http://www.kdheks.gov/hci/IMR/2013_IMR_REPORT.pdf).

## **BHP Chronic Disease Report Published**

Four KDHE Bureau of Health Promotion staff, Jeanie Santaularia, Laurie Hart, Lori Haskett, and Ericka Welsh were co-authors on a recently published report on sexual violence and chronic disease. The article, “Relationships between sexual violence and chronic disease: a cross-sectional study” was published December 14, 2014, in *BMC Public Health*.

The purpose of the study was to identify associations between sexual violence and health risk behaviors, chronic health conditions and mental health conditions utilizing population based data in Kansas.

The study used secondary analysis involving data from the 2011 Kansas Behavioral Risk Factor Surveillance System sexual violence module (N = 4,886). Crude and adjusted prevalence rate ratios were computed to examine associations between sexual assault and health risk behaviors, chronic health conditions and mental health conditions, overall and after adjusting for social demographic characteristics.

The analysis found a significantly higher prevalence of health risk behaviors (heavy drinking, binge drinking and current smoking), chronic health conditions (disability, and current asthma) and mental health conditions (depression, anxiety, and suicidal ideation) among women who ever experienced sexual assault compared to women who did not, even after adjustment for potential confounders. Findings highlight the need for chronic disease prevention services for victims of sexual violence.

The article is available at: <http://www.biomedcentral.com/1471-2458/14/1286>.

## **Kansas Information for Communities Updated**

Kansas Information for Communities (KIC) has been updated and moved to a new server. KIC has provided the ability to create custom queries to generate statistics on births, pregnancies, deaths, hospital discharge, cancer, and population for 15 years.

The new URL, <http://kic.kdheks.gov> is shorter and a more up-to-date server. The site also received a new look, making it easier to navigate to the dataset being queried. Navigation to other information on KIC will also be easier and faster.

KIC was also updated to add datasets for 2013 births, deaths, population, and pregnancies; 2012 hospital discharge data; and 2011 cancer data.

Changes have also been made to the way results are displayed. Vital-events-related queries will return results with limited or no count suppression. Rates for hospital discharge and vital events will be flagged when counts are less than 20 to denote the rate is unreliable. Formerly these rates were suppressed. Stronger suppression is being applied to statistics returned on cancer queries.

For documentation on KIC, visit <http://kic.kdheks.gov/OHA/kicnote.html>.

## Kansas Health Matters Updated

As of February 6, 2015, the Calendar Year 2014 indicator update cycle was completed for Kansas Health Matters. Indicators for the groups of Behavioral Risk Factors Surveillance System (BRFSS), hospital discharges, mortality & year of potential life lost (YPLL), and natality have been updated with the most current data available. The following lists the updated indicators in their parent group:

### Behavioral Risk Factors Surveillance System (BRFSS):

- Percent of Adults Ages 65 Years and Older Who Were Immunized Against Influenza During the Past 12 Months
- Percent of Adults Doing Enough Physical Activity To Meet Both The Aerobic AND Strengthening Exercise Recommendations
- Percent of Adults Tested and Diagnosed with High Cholesterol
- Percent of Adults Who are Binge Drinkers
- Percent of Adults who are Obese
- Percent of Adults who are Overweight
- Percent of Adults Who Currently Smoke Cigarettes
- Percent of Adults Who Reported Consuming Fruit Less than 1 Time Per Day
- Percent of Adults Who Reported Consuming Vegetable Less than 1 Time Per Day
- Percent of Adults Who Reported That They Always Wear a Seatbelt When They Drive or Ride in a Car
- Percent of Adults Who Were Ever Diagnosed with a Depressive Disorder
- Percent of Adults with Diagnosed Diabetes
- Percent of Adults with Diagnosed Hypertension
- Percent of Adults with Doctor Diagnosed Arthritis
- Percent of Adults with Fair or Poor Self-Perceived Health Status

### Hospital Admissions:

- Bacterial Pneumonia Hospital Admission Rate
- Chronic Obstructive Pulmonary Disease (COPD) Hospital Admission Rate
- Congestive Heart Failure Hospital Admission Rate
- Heart Disease Hospital Admission Rate
- Injury Hospital Admission Rate

### Mortality & YPLL:

- Age Adjusted Mortality Rate per 100,000 Populations:
  - Alzheimer 's disease
  - Cancer – All
  - Cerebrovascular Disease
  - Chronic Lower Respiratory Disease
  - Diabetes



- Heart Disease
- Homicide
- All Deaths
- Nephritis, Nephrotic Syndrome, Nephrosis
- Suicide
- Traffic Injury
- Unintentional Injuries

**Age Adjusted Years of Potential Life Lost (YPLL):**

- Alzheimer 's disease
- Cancer – All
- Cerebrovascular Disease
- Chronic Lower Respiratory Disease
- Diabetes
- Heart Disease
- Homicide
- Nephritis, Nephrotic Syndrome, Nephrosis
- Suicide
- Traffic Injury
- Unintentional Injuries

**Natality:**

- Infant Mortality Rate
- Number of Births per 1,000 Population
- Percent of all Births Occurring to Teens (15-19)
- Percent of Births Occurring to Unmarried Women
- Percent of births Where Mother Smoked During Pregnancy
- Percent of Births with Inadequate Birth Spacing
- Percent of Births with Low Birth Weight
- Percentage of Premature Births

## **Kansas Health Matters Website Redesigned and Enhanced**

The Web-based tool *Kansas Health Matters* has been redesigned and enhanced to better assist anyone interested in actionable information for community health improvement in Kansas. [KansasHealthMatters.org](http://KansasHealthMatters.org) now features a new monthly focus area, defines key health indicators and is more user-friendly, with a new look and feel.

[KansasHealthMatters.org](http://KansasHealthMatters.org) continues to bring community health-related statistical data, local resources and a wealth of information into one accessible, user-friendly location. The evolving nature of this website allows all users of Kansas Health Matters to contribute information and ideas. The site is made possible by the Kansas Health Matters Partnership.

Although local health departments and hospitals were the original primary target audience for *Kansas Health Matters*, members of the *Kansas Health Matters* partnership have worked to revise the new website for even broader use, including schools, health associations, chambers of commerce, tourism and government representatives – anyone looking to identify and understand the health indicators in their community. This site will provide them with tools and resources to support health improvement efforts.

[KansasHealthMatters.org](http://KansasHealthMatters.org) hosts a wealth of data, trends, disparities, and demographics, and can generate reports that compare between geographies. Additionally, a promising practices database informs professionals and community members about documented approaches to improving community health and quality of life. Funding opportunities and other resources are also featured on the site. All data are presented at the community, not patient, level.

While communities and researchers have been able to access these data from various sources, [KansasHealthMatters.org](http://KansasHealthMatters.org) turns that data into useful information that communities and health care providers can use to identify and address the leading health concerns of their communities.

The Kansas Health Matters Partnership was established in March 2011 as a public-private partnership. Multiple cross-sectorial agencies came together to create and provide the vision and leadership for Kansas' most comprehensive online source of state-specific data and relevant health improvement resources.

Kansas Health Matters is supported by the following partner organizations:

[Kansas Association for the Medically Underserved](#)

[Kansas Association of Local Health Departments](#)

[Kansas Department of Health and Environment](#)

[Kansas Health Foundation](#)

[Kansas Health Institute](#)

[Kansas Hospital Association](#)

[United Way of the Plains](#)

For more information e-mail [khmfeedback@khi.org](mailto:khmfeedback@khi.org).

## Teen Pregnancy Report Issued for 2013

The Bureau of Epidemiology and Public Health Informatics has issued the 2013 Adolescent and Teenage Pregnancy Report. The report contains a series of summary tables detailing pregnancy outcomes for Kansas resident women ages 10-19.

Adolescent and teenage females (10-19) accounted for 3,335 (7.8%) of the 42,743 pregnancies in 2013. Among teens, 86.8 percent of the pregnancies resulted in a live birth (2,897), 12.6 percent in abortion (419) and the remainder in stillbirths (19).

Other findings include:

- Adolescent and teen pregnancy rates have decreased by 50.9 percent during the past two decades (1994-2013). Pregnancy numbers and rates in 2013 were the lowest since 1994 in all adolescent and teen age-groups (Table 1).

- The pregnancy rate for females ages 10-19 was 17.1 per 1,000 female age-group population in 2013, down 13.2 percent from 2012 (19.7).
- The rate for teens 10-17 (5.7) was 13.6 percent lower than in 2012 (6.6). The pregnancy rate for teens 15-19 (34.0) decreased by 12.8 percent from 2012 to 2013. The rate for teens 10-14 (0.4) remained the same as in 2012 (0.4).

The report is at [http://www.kdheks.gov/data\\_reports\\_stats.htm](http://www.kdheks.gov/data_reports_stats.htm).

Table 1. Pregnancy Numbers and Rates by Year by Age-Group, Females Aged 10-19 Years, Kansas 1994-2013

Year	Teen (10-19) Pregnancies	Age-Group					Teen (10-19) Pregnancy Rate*	Pregnancy Rates*				
		10-14	15-17	18-19	10-17	15-19		10-14	15-17	18-19	10-17	15-19
1994	6,500	124	2,302	4,074	2,426	6,376	34.8	1.3	42.4	120.5	15.9	71.9
1995	6,552	153	2,332	4,067	2,485	6,399	34.5	1.6	41.3	117.6	16.1	69.5
1996	6,498	133	2,276	4,089	2,409	6,365	33.9	1.4	38.9	113.4	15.6	67.0
1997	6,469	123	2,260	4,086	2,383	6,346	33.3	1.3	37.4	110.4	15.3	64.7
1998	6,444	108	2,087	4,249	2,195	6,336	32.4	1.1	34.1	107.6	13.8	62.0
1999	6,402	103	1,979	4,320	2,082	6,299	31.9	1.1	32.4	106.3	13.1	60.7
2000	6,090	94	1,819	4,177	1,913	5,996	30.3	0.9	30.1	105.0	12.0	58.7
2001	5,818	79	1,819	3,920	1,898	5,739	28.8	0.8	30.2	101.4	11.9	56.0
2002	5,586	86	1,684	3,816	1,770	5,500	28.3	0.9	28.3	96.0	11.3	54.7
2003	5,174	73	1,559	3,542	1,632	5,101	26.4	0.8	26.6	92.9	10.5	51.3
2004	5,026	71	1,492	3,463	1,563	4,955	26.1	0.8	25.8	86.8	10.3	50.3
2005	5,044	69	1,483	3,492	1,552	4,975	26.7	0.8	25.7	85.1	10.4	50.8
2006	5,192	85	1,507	3,600	1,592	5,107	27.1	0.9	25.5	87.1	10.4	52.2
2007	5,268	70	1,573	3,625	1,643	5,198	27.8	0.8	26.8	93.1	10.9	53.2
2008	5,371	66	1,552	3,753	1,618	5,305	28.6	0.7	27.1	95.7	10.9	55.0
2009	5,036	56	1,417	3,563	1,473	4,980	26.8	0.6	25.2	88.5	10.0	51.6
2010	4,501	59	1,298	3,144	1,357	4,442	23.1	0.6	22.4	77.6	8.8	45.1
2011	4,095	70	1,063	2,962	1,133	4,025	20.9	0.7	18.4	72.2	7.3	40.8
2012	3,823	42	973	2,808	1,015	3,781	19.7	0.4	17.0	70.8	6.6	39.0
2013	3,335	41	841	2,453	882	3,294	17.1	0.4	14.6	62.4	5.7	34.0

Pregnancies include the sum of live births, stillbirths and abortions.

\*Rate per 1,000 female age-group population.

Kansas Residence data.

Source: Bureau of Epidemiology and Public Health Informatics  
 Kansas Department of Health and Environment

Bureau of Epidemiology and Public Health Informatics

# Kansas Health Statistics Report

The Public Health Informatics Unit (PHI) of the Kansas Department of Health and Environment's Bureau of Epidemiology and Public Health Informatics produces *Kansas Health Statistics Report* to inform the public about availability and uses of health data. Material in this publication may be reproduced without permission; citation as to source, however, is appreciated. Send comments, questions, address changes and articles on health data intended for publication to: PHI, 1000 SW Jackson, Suite 130 Topeka, KS, 66612-1354, [Kansas.Health.Statistics@kdheks.gov](mailto:Kansas.Health.Statistics@kdheks.gov), or 785-296-8627. Susan Mosier, MD, Acting Secretary KDHE; D. Charles Hunt, MPH, State Epidemiologist and Director, BEPHI; Elizabeth W. Saadi, PhD, State Registrar, Deputy Director, BEPHI; Greg Crawford, Editor.

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