



# Preliminary Birth Report Kansas, 2018

---

**Bureau of Epidemiology and Public Health Informatics  
Division of Public Health**

**Kansas Department of Health and Environment**

Curtis State Office Building – 1000 SW Jackson, Topeka, KS, 66612-1354

<http://www.kdheks.gov/bephi/>

May 2019

This Research Summary Was Prepared By:

Kansas Department of Health and Environment  
Lee A. Norman, M.D., Secretary

Bureau of Epidemiology and Public Health Informatics  
Elizabeth W. Saadi, PhD, Director and State Registrar

Prepared by: David Oakley, MA  
Greg Crawford, BA  
Jeanne Jones, BA  
Cathryn Savage, PhD

Data for this report were collected by:

Office of Vital Statistics  
Kay Haug, Director

Our Vision – Healthy Kansans living in safe and sustainable environments.

Our Mission –To protect and improve the health and environment of all Kansans.

## Introduction

---

This report from the Kansas Department of Health and Environment (KDHE) presents a preliminary summary of Kansas births for 2018. Selected birth counts and rates are compared to those in the 2017 Annual Summary of Kansas Vital Statistics. Release of preliminary statistics enables program managers and policy analysts to obtain an early picture of selected birth trends. Statistics based on final counts and published in the *Kansas Annual Summary of Vital Statistics, 2018*, may be slightly different.

## Methods

---

The KDHE Bureau of Epidemiology and Public Health Informatics (BEPHI) maintains the Kansas civil registration system through the Office of Vital Statistics (OVS). All vital events that occur in Kansas are reported to OVS. Vital events occurring in other states to Kansas residents are reported to OVS via inter-state jurisdictional exchange agreements. The analysis in this research brief is based on a preliminary annual history file of births that occurred in 2018, and were registered by OVS by April 1, 2019. All data reported herein are Kansas residence data, regardless of where the event occurred.

Changes in rates or percentages referenced in this report are statistically significant unless otherwise noted. Some changes, while statistically significant, may be of such a small magnitude that they are not pertinent from a program management perspective.

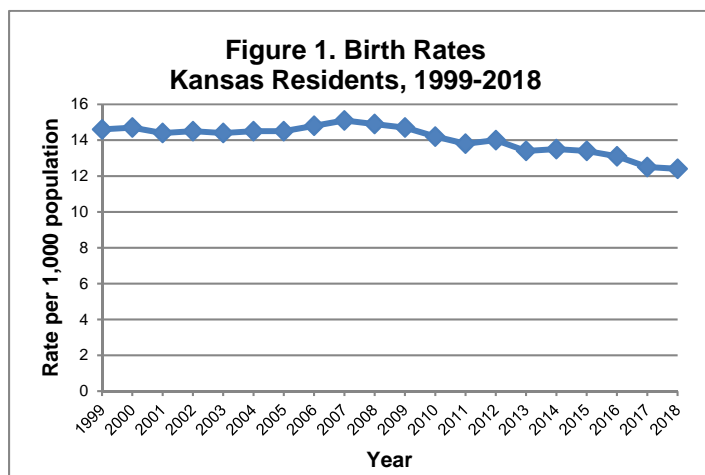
State and county birth rates use population estimates for state and county population totals as of July 1, 2018, as released by the US Census Bureau in early 2019.

## Findings

---

As of April 1, 2019, OVS had recorded 36,247 births to Kansas resident mothers in 2018, a decrease of 0.6 percent from 36,464 births in 2017. The final count may be slightly higher, since additional births may be reported for Kansas residents who gave birth in other states.

The birth rate in 2018 was 12.4 per 1,000 population, down from 12.5 in 2017. This is the lowest birth rate for Kansas residents since the state created a centralized Vital Records system in 1911, and is consistent with trends since 2007 (Figure 1).



Seven counties (Douglas, Geary, Johnson, Leavenworth, Sedgwick, Shawnee and Wyandotte) accounted for 59.7 percent of births in 2018 (Table 1), compared to 59.5 percent for the seven counties with the most births in 2017. The number of births for three of these counties was lower than in 2017: Sedgwick County births decreased by 2.3 percent (from 6,907 to 6,729), Douglas County births decreased by 1.8 percent (from 1,134 to 1,114), and Johnson County births decreased by 1.0 percent (from 7,207 to 7,138). The number of births for four of these counties was higher than in 2017: Leavenworth County births increased by 5.5 percent (from 951 to 1,003), Geary County births increased by 5.2 percent (from 890 to 936), Wyandotte County births increased by 3.0 percent (from 2,539 to 2,615), and Shawnee County births increased by 2.3 percent (from 2,065 to 2,112).

There were 13,170 out-of-wedlock births in 2018 (36.3% of all births where the mother's marital status was known), up from 12,990 (35.6%) in 2017.

The number of births to teens aged 15-19 years declined from 2,053 in 2017 to 1,933 in 2018. The overall percentage dropped from 5.6 percent in 2017 to 5.3 percent in 2018.

There were 2,694 low birth weight (less than 2,500 grams) infants born to Kansas resident mothers in 2018 (7.4% of all births where the infant's birth weight was known), down from 2,697 (7.4%) in 2017.

Premature births (less than 37 completed weeks of gestation) decreased to 3,438 in 2018 (9.5% of all births where the clinical estimate of gestation was known), from 3,492 (9.6%) in 2017. Early-term births (37-38 weeks gestation) increased to 9,518 (26.3%) in 2018, from 9,345 (25.6%) in 2017. Full term births (39 weeks or longer gestation) decreased to 23,262 (64.2%) in 2018, from 23,603 (64.8%) in 2017.

The percentage of births where prenatal care began in the first trimester decreased to 81.0 percent (29,008 births) in 2018, from 81.2 percent (29,473 births) in 2017.

Births with reported maternal cigarette smoking during pregnancy declined to 3,434 in 2018 (9.5% of all births where maternal cigarette status was known), down from 3,680 (10.1%) in 2017.

## Discussion

---

The Kansas resident birth rate declined 0.8 percent from 2017 (12.5 per 1,000 population) to 2018 (12.4 per 1,000 population), continuing the trend that started in 2008. During this period (2008-2018) the average annual percent change (-1.7%) shows a statistically significant downward trend<sup>1</sup>. The 2018 Kansas preliminary birth

---

<sup>1</sup> National Cancer Institute Joinpoint Regression Program v3.4.5 [Internet]. Bethesda MD. [Accessed 2012 Sep 14] Available from: <http://surveillance.cancer.gov/joinpoint/>.

rate of 12.4 per 1,000 population is higher than the most current (2017 final) U.S. birth rate of 11.8.<sup>2</sup>

Based on preliminary statistics, Kansas surpassed the Healthy People 2020<sup>3</sup> targets for low birth weight babies and first trimester prenatal care. The target for low birth weight babies is 7.8 percent. The Kansas rate of 7.4 percent is 5.1 percent lower than the target (HP 2020 objective MICH-8.1). The target for first trimester prenatal care (HP2020 objective MICH-10.1) is 77.9 percent. The Kansas rate was 81.0 percent in preliminary 2018 birth data, which exceeded the HP 2020 target.

Kansas has not met the target for smoking during pregnancy (HP 2020 objective MICH-11.3). The target is 1.4 percent. The Kansas rate for smoking during pregnancy, however, decreased by 5.9 percent from 2017 (10.1%) to preliminary 2018 (9.5%).

The percentage of infants born prematurely (before 37 weeks gestation) decreased by 1.0 percent from 2017 (9.6%) to preliminary 2018 (9.5%). Because of methodological differences, the Kansas rate can not be compared to the HP2020 target (HP 2020 objective MICH-9.1).

Births to teens aged 15-19 years have decreased since 2009. Based on preliminary 2018 data (5.3%), teen birth percentages were decreased by 5.4 percent from 2017 (5.6%) and by 48.0 percent since 2009 (10.2%).

The *2018 Annual Summary of Vital Statistics* will contain additional analyses, as well as the final version of the analyses presented here. It will be based on the final birth history file created in July, 2019.

Prepared by: Vital Statistics Data Analysis Section, Public Health Informatics  
Bureau of Epidemiology and Public Health Informatics  
Division of Public Health  
Kansas Department of Health and Environment

Source Data: Office of Vital Statistics, Public Health Informatics  
Bureau of Epidemiology and Public Health Informatics  
Division of Public Health  
Kansas Department of Health and Environment

---

<sup>2</sup> Martin JA, Hamilton BE, Osterman MJK, Driscoll AK, Drake P. Births: Final Data for 2017. National Vital Statistics Reports Vol. 67, No. 8 (November 7, 2018).

<sup>3</sup> Healthy People 2020 Objectives [Internet] [updated 2019 April 2; cited 2019 April 3]. Available from: <http://www.healthypeople.gov/2020/topicsobjectives2020/default.aspx>.

Table 1. Preliminary Live Births and Rates by County of Residence, by Age of Mother, Kansas 2018

County	Total	Age-Group of Mother									Rate <sup>†</sup>
		10-14	15-19	20-24	25-29	30-34	35-39	40-44	45 & Over	n.s.	
Kansas	36,247	11	1,933	7,837	11,377	10,009	4,303	730	45	2	12.4
Allen	159	0	12	49	61	30	7	0	0	0	12.8
Anderson	105	0	6	28	26	30	14	1	0	0	13.3
Atchison	185	0	7	60	56	30	27	5	0	0	11.4
Barber	55	0	2	6	25	17	4	1	0	0	12.3
Barton	321	0	26	78	108	79	29	1	0	0	12.3
Bourbon	202	1	13	70	64	34	16	4	0	0	13.8
Brown	130	0	10	39	42	28	9	2	0	0	13.5
Butler	701	0	28	157	222	195	81	17	1	0	10.5
Chase	24	0	1	3	14	6	0	0	0	0	9.1
Chautauqua	35	0	4	11	10	6	4	0	0	0	10.6
Cherokee	231	0	22	87	70	26	23	3	0	0	11.5
Cheyenne	21	0	0	5	5	7	3	1	0	0	7.9
Clark	24	0	1	5	9	7	2	0	0	0	12.0
Clay	90	0	3	23	28	22	13	1	0	0	11.3
Cloud	104	0	7	23	32	31	9	2	0	0	11.9
Coffey	73	0	3	19	22	23	6	0	0	0	8.9
Comanche	14	0	0	1	7	5	1	0	0	0	8.0
Cowley	382	0	31	111	133	74	27	6	0	0	10.8
Crawford.	450	0	41	124	128	94	54	9	0	0	11.5
Decatur	30	0	0	8	16	5	0	1	0	0	10.4
Dickinson	183	0	10	41	68	40	21	3	0	0	9.8
Doniphan	90	0	4	23	30	21	10	2	0	0	11.7
Douglas	1,114	0	33	183	338	359	164	34	3	0	9.2
Edwards	31	0	0	11	8	6	6	0	0	0	10.9
Elk	24	0	2	10	7	2	3	0	0	0	9.6
Ellis	314	0	14	59	107	97	32	5	0	0	10.9
Ellsworth	52	0	3	11	16	14	6	3	0	0	8.6
Finney	621	0	45	161	216	141	48	10	0	0	17.0
Ford	574	0	50	144	182	129	52	15	2	0	16.9
Franklin	303	0	14	94	115	64	16	0	0	0	11.8
Geary	936	0	45	364	306	157	58	5	1	0	28.7
Gove	38	0	0	7	10	16	2	3	0	0	14.5
Graham	24	0	1	5	12	3	3	0	0	0	9.6
Grant	126	0	13	39	32	26	11	5	0	0	17.2
Gray	78	0	2	18	30	19	7	2	0	0	12.9
Greeley	14	0	1	0	5	5	1	2	0	0	11.4
Greenwood	54	0	0	13	16	16	8	0	1	0	8.9
Hamilton	31	0	3	8	9	5	3	3	0	0	11.9
Harper	69	0	5	23	22	15	4	0	0	0	12.5
Harvey	386	0	15	84	130	118	30	8	1	0	11.3
Haskell	67	0	4	20	22	13	7	1	0	0	16.8
Hodgeman	14	0	1	3	3	6	0	1	0	0	7.7
Jackson	170	0	11	41	60	37	17	4	0	0	12.8
Jefferson	188	0	6	52	60	59	9	2	0	0	9.9
Jewell	24	0	1	3	12	5	3	0	0	0	8.4
Johnson	7,138	0	144	668	1,970	2,790	1,346	208	11	1	11.9
Kearny	65	0	3	13	21	18	7	3	0	0	16.5
Kingman	68	0	2	12	26	18	10	0	0	0	9.3
Kiowa	41	0	3	9	18	6	5	0	0	0	16.3
Labette	269	0	23	89	83	53	18	3	0	0	13.5
Lane	19	0	0	2	9	7	1	0	0	0	12.2
Leavenworth	1,003	0	40	240	303	273	128	17	2	0	12.3
Lincoln	30	0	2	5	10	6	7	0	0	0	9.9
Linn	102	0	12	30	28	23	9	0	0	0	10.5
Logan	48	0	3	13	19	6	7	0	0	0	16.9
Lyon	405	0	25	89	140	103	42	6	0	0	12.1
McPherson	301	0	11	73	115	77	21	3	0	1	10.5
Marion	111	0	7	25	36	33	9	1	0	0	9.3
Marshall	117	0	5	14	50	33	13	2	0	0	12.0
Meade	56	0	2	18	18	12	6	0	0	0	13.5
Miami	369	0	14	68	138	104	32	13	0	0	11.0
Mitchell	64	0	2	17	27	14	13	2	0	0	12.2
Montgomery	359	1	34	97	103	81	35	8	0	0	11.2

Table 1. Preliminary Live Births and Rates by County of Residence, by Age of Mother, Kansas 2018

County	Total	Age-Group of Mother								n.s.	Rate <sup>†</sup>
		10-14	15-19	20-24	25-29	30-34	35-39	40-44	45 & Over		
Morris	64	0	3	17	23	16	4	1	0	0	11.6
Morton	27	0	4	5	8	9	1	0	0	0	10.1
Nemaha	148	0	6	33	44	45	18	2	0	0	14.6
Neosho	163	0	13	49	49	39	11	2	0	0	10.2
Ness	35	0	1	10	10	7	7	0	0	0	12.3
Norton	56	0	3	9	21	17	5	0	1	0	10.3
Osage	165	0	13	45	57	34	16	0	0	0	10.4
Osborne	42	0	1	11	16	6	4	3	1	0	12.1
Ottawa	60	0	3	18	18	19	2	0	0	0	10.3
Pawnee	51	0	1	14	19	14	3	0	0	0	7.8
Phillips	61	0	3	13	24	13	8	0	0	0	11.5
Pottawatomie	383	0	11	62	130	111	55	11	3	0	15.8
Pratt	116	0	6	17	46	34	9	4	0	0	12.4
Rawlins	37	0	0	6	13	10	7	0	1	0	14.8
Reno	642	1	39	181	213	141	54	11	2	0	10.3
Republic	44	0	0	7	16	14	7	0	0	0	9.4
Rice	113	0	5	29	50	19	9	1	0	0	11.9
Riley	895	1	39	247	270	226	100	12	0	0	12.1
Rooks	67	0	5	17	21	14	10	0	0	0	13.4
Rush	23	0	0	4	9	7	3	0	0	0	7.4
Russell	83	0	7	21	25	19	10	1	0	0	12.0
Saline	642	0	49	155	220	156	58	4	0	0	11.8
Scott	67	0	8	12	21	17	8	1	0	0	13.7
Sedgwick	6,729	3	410	1,491	2,161	1,807	723	128	6	0	13.1
Seward	381	0	34	111	101	89	35	10	1	0	17.5
Shawnee	2,122	1	140	513	664	546	197	50	2	0	12.0
Sheridan	23	0	0	10	6	4	3	0	0	0	9.1
Sherman	65	0	3	18	21	16	6	1	0	0	11.0
Smith	30	0	0	10	6	9	5	0	0	0	8.3
Stafford	44	0	2	8	20	11	1	2	0	0	10.5
Stanton	21	0	2	2	8	6	3	0	0	0	10.6
Stevens	72	0	5	16	25	16	8	2	0	0	13.0
Sumner	258	0	21	71	77	55	30	4	0	0	11.2
Thomas	99	0	5	31	30	23	8	2	0	0	12.8
Trego	31	0	1	9	14	6	1	0	0	0	11.1
Wabaunsee	72	0	2	16	25	16	11	2	0	0	10.4
Wallace	33	0	1	7	12	9	4	0	0	0	22.0
Washington	77	0	1	11	24	35	5	0	1	0	14.2
Wichita	22	0	0	5	10	7	0	0	0	0	10.5
Wilson.	102	0	10	27	32	22	9	1	1	0	11.8
Woodson	24	0	1	5	9	6	3	0	0	0	7.5
Wyandotte	2,615	0	234	687	800	557	283	47	4	0	15.8
n.s. <sup>‡</sup>	5	0	0	1	1	3	0	0	0	0	n/a
Peer Group											
Frontier	1,216	0	50	281	437	293	131	21	3	0	11.4
Rural	2,677	0	153	637	891	687	267	39	3	0	11.7
Densely - Settled Rural	5,945	1	402	1,565	1,967	1,358	546	99	6	1	12.8
Semi-Urban	5,683	3	318	1,571	1,845	1,336	518	87	5	0	12.5
Urban	20,721	7	1,010	3,782	6,236	6,332	2,841	484	28	1	12.5

\* Based on 2017 births registered by April 1, 2019

† Rates are per 1,000 population.

‡ Some records without valid county data may be deleted from the final history file, or may be assigned to a Kansas county based on other address information in the record.