

# KANSAS

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*Adequacy of Prenatal Care  
Utilization Index  
Kansas, 2000*



Research  
Summary

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## **Adequacy of Prenatal Care Utilization Index**

The Kansas Department of Health and Environment (KDHE) annually publishes an Adequacy of Prenatal Care Utilization (APNCU) Index, utilizing information readily available on the Kansas birth certificate (number of prenatal care visits, month prenatal care began, and gestational length of pregnancy). The APNCU Index combines information on the adequacy of initiation of prenatal care and the adequacy of received services to characterize adequacy of pregnancy-related health services provided to an expectant mother between conception and delivery. Prenatal care has long been endorsed as a major means to identify and reduce the risks of bearing infants who are low birth weight, are stillborn, or die within the first year of life. Therefore, the APNCU categorizes care as inadequate, intermediate, adequate or adequate plus in an attempt to measure progress toward reducing such risks. The index does not assess quality of the prenatal care that is delivered, only its utilization.

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# KANSAS ADEQUACY OF PRENATAL CARE UTILIZATION (APNCU) INDEX

## I. Month prenatal care began (Adequacy of Initiation of Prenatal Care)

Adequate Plus: 1<sup>st</sup> or 2<sup>nd</sup> month

Adequate: 3<sup>rd</sup> or 4<sup>th</sup> month

Intermediate: 5<sup>th</sup> or 6<sup>th</sup> month

Inadequate: 7<sup>th</sup> month or later, or no prenatal care

## II. Proportion of the number of visits recommended by the American College of Obstetricians and Gynecologists (ACOG) received from the time prenatal care began until delivery (Adequacy of Received Services)

Adequate Plus: 110% or more

Adequate: 80% - 109%

Intermediate: 50% - 79%

Inadequate: less than 50%

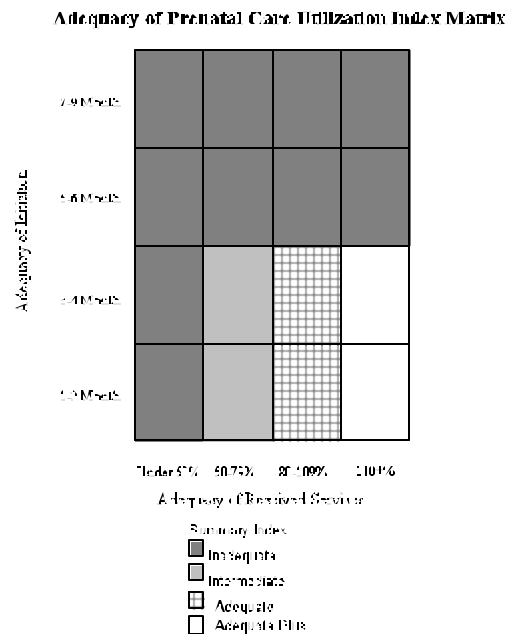
## III. Summary Adequacy of Prenatal Care Utilization Index

Adequate Plus: Prenatal care begun by the 4<sup>th</sup> month and 110% or more of recommended visits received

Adequate: Prenatal care begun by the 4<sup>th</sup> month and 80% - 109% of recommended visits received

Intermediate: Prenatal care begun by the 4<sup>th</sup> month and 50% - 79% of recommended visits received

Inadequate: Prenatal care begun after the 4<sup>th</sup> month or less than 50% of recommended visits received



**NOTE:** The APNCU Index requires the use of the following data elements reported on the live birth certificate: number of prenatal care visits, month prenatal care began, and gestational length of pregnancy.

**APNCU Reference:** Kotelchuck M. An evaluation of the Kessner Adequacy of Prenatal Care Index and a proposed Adequacy of Prenatal Care Utilization Index. *American Journal of Public Health*, 1994;84:1414-1420.

**Source:** Children & Families Section, Bureau for Children, Youth, and Families, Kansas Department of Health & Environment, 785-296-1306

Office of Health Care Information, Center for Health & Environmental Statistics, Kansas Department of Health & Environment, 785-296-5644

## Adequacy of Prenatal Care Utilization Index Kansas Residents\*, 2000

<b>Adequacy of Initiation</b>	7-9 Month	366	146	243	319
	5-6 Month	67	325	647	830
	3-4 Month	212	1,111	4,925	2,466
	1-2 Month	245	2,686	17,160	7,371
		Under 50%	50-79%	80-109%	110+%
		<b>Adequacy of Received Services</b>			

**Summary Index**

- Inadequate
- Intermediate
- Adequate
- Adequate Plus

\*Includes only the 39,119 Kansas resident live births for which number of prenatal visits and month care began were reported on the the birth certificate.

Adequacy of Prenatal Care Utilization (APNCU) Index  
By County Of Residence  
Kansas, 2000

County of Residence	Live Births*	APNCU Category								Not Stated
		Adequate Plus		Adequate		Intermediate		Inadequate		
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Kansas.....	39,119	9,837	25.1	22,085	56.5	3,797	9.7	3,400	8.7	535
Allen.....	196	64	32.7	97	49.5	23	11.7	12	6.1	2
Anderson.....	111	28	25.2	50	45.1	19	17.1	14	12.6	-
Atchison.....	206	65	31.5	103	50.0	16	7.8	22	10.7	3
Barber.....	39	7	17.9	29	74.4	1	2.6	2	5.1	1
Barton.....	336	94	28.0	156	46.4	39	11.6	47	14.0	7
Bourbon.....	206	112	54.4	78	37.8	8	3.9	8	3.9	-
Brown.....	142	34	23.9	83	58.4	12	8.5	13	9.2	5
Butler.....	771	127	16.5	543	70.4	51	6.6	50	6.5	4
Chase.....	28	6	21.4	17	60.7	2	7.2	3	10.7	1
Chautauqua.....	38	11	29.0	14	36.8	6	15.8	7	18.4	1
Cherokee.....	276	65	23.5	156	56.5	25	9.1	30	10.9	3
Cheyenne.....	38	7	18.4	20	52.6	8	21.1	3	7.9	-
Clark.....	30	10	33.3	10	33.3	1	3.4	9	30.0	-
Clay.....	97	24	24.7	54	55.7	13	13.4	6	6.2	-
Cloud.....	102	26	25.5	62	60.8	11	10.8	3	2.9	-
Coffey.....	108	28	25.9	63	58.3	11	10.2	6	5.6	1
Comanche.....	26	8	30.8	14	53.9	3	11.5	1	3.8	-
Cowley.....	455	137	30.1	262	57.6	30	6.6	26	5.7	2
Crawford.....	577	200	34.7	276	47.8	54	9.4	47	8.1	3
Decatur.....	36	9	25.0	23	63.9	3	8.3	1	2.8	-
Dickinson.....	232	77	33.2	120	51.7	14	6.0	21	9.1	-
Doniphan.....	96	15	15.6	70	72.9	7	7.3	4	4.2	-
Douglas.....	1,088	362	33.3	544	50.0	102	9.4	80	7.3	94
Edwards.....	53	16	30.2	22	41.5	7	13.2	8	15.1	-
Elk.....	32	6	18.8	17	53.1	3	9.3	6	18.8	-
Ellis.....	334	90	26.9	186	55.7	37	11.1	21	6.3	-
Ellsworth.....	43	13	30.2	27	62.8	1	2.3	2	4.7	-
Finney.....	917	183	20.0	306	33.4	157	17.1	271	29.5	4
Ford.....	643	158	24.6	241	37.5	88	13.7	156	24.2	12
Franklin.....	343	98	28.6	190	55.4	31	9.0	24	7.0	10
Geary.....	565	145	25.7	270	47.8	86	15.2	64	11.3	-
Gove.....	37	8	21.6	20	54.1	4	10.8	5	13.5	-
Graham.....	23	3	13.0	17	73.9	1	4.4	2	8.7	-
Grant.....	137	28	20.4	63	46.0	23	16.8	23	16.8	1
Gray.....	98	20	20.4	46	46.9	14	14.3	18	18.4	-
Greeley.....	19	4	21.1	11	57.9	2	10.5	2	10.5	-
Greenwood.....	93	22	23.7	51	54.8	8	8.6	12	12.9	1
Hamilton.....	45	16	35.5	18	40.0	7	15.6	4	8.9	-
Harper.....	69	2	2.9	49	71.0	11	15.9	7	10.2	-
Harvey.....	444	147	33.1	233	52.5	24	5.4	40	9.0	3
Haskell.....	80	9	11.2	34	42.5	17	21.3	20	25.0	1
Hodgeman.....	15	6	40.0	5	33.3	-	-	4	26.7	-
Jackson.....	161	55	34.2	80	49.7	15	9.3	11	6.8	3
Jefferson.....	185	65	35.1	85	46.0	23	12.4	12	6.5	7
Jewell.....	19	3	15.8	12	63.1	3	15.8	1	5.3	-
Johnson.....	6,920	2,053	29.6	4,233	61.2	393	5.7	241	3.5	69
Kearny.....	69	21	30.4	27	39.1	11	16.0	10	14.5	1
Kingman.....	101	15	14.8	68	67.3	13	12.9	5	5.0	-
Kiowa.....	34	7	20.6	17	50.0	4	11.8	6	17.6	-
Labette.....	254	104	40.9	112	44.1	22	8.7	16	6.3	2
Lane.....	16	4	25.0	6	37.5	5	31.2	1	6.3	-
Leavenworth.....	887	309	34.8	440	49.6	78	8.8	60	6.8	4
Lincoln.....	47	8	17.0	31	66.0	2	4.2	6	12.8	1
Linn.....	124	37	29.8	74	59.7	10	8.1	3	2.4	2
Logan.....	38	12	31.6	21	55.2	2	5.3	3	7.9	-

Adequacy of Prenatal Care Utilization (APNCU) Index  
By County Of Residence  
Kansas, 2000

County of Residence	Live Births*	APNCU Category								Not Stated
		Adequate Plus		Adequate		Intermediate		Inadequate		
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Lyon.....	529	121	22.9	240	45.4	80	15.1	88	16.6	11
Marion.....	141	45	31.9	71	50.4	14	9.9	11	7.8	-
Marshall.....	102	30	29.4	53	51.9	17	16.7	2	2.0	4
McPherson.....	346	74	21.4	221	63.9	29	8.4	22	6.3	-
Meade.....	77	10	13.0	41	53.2	15	19.5	11	14.3	-
Miami.....	374	112	29.9	211	56.4	32	8.6	19	5.1	3
Mitchell.....	61	8	13.1	43	70.5	6	9.8	4	6.6	-
Montgomery.....	472	168	35.6	220	46.6	38	8.1	46	9.7	10
Morris.....	69	17	24.6	34	49.3	14	20.3	4	5.8	-
Morton.....	58	4	6.9	28	48.3	15	25.8	11	19.0	4
Nemaha.....	128	27	21.1	77	60.2	20	15.6	4	3.1	8
Neosho.....	216	77	35.7	107	49.5	14	6.5	18	8.3	-
Ness.....	31	5	16.1	18	58.1	6	19.3	2	6.5	-
Norton.....	72	23	31.9	36	50.0	11	15.3	2	2.8	-
Osage.....	192	59	30.8	106	55.2	16	8.3	11	5.7	-
Osborne.....	35	5	14.3	22	62.8	3	8.6	5	14.3	-
Ottawa.....	78	9	11.5	60	76.9	2	2.6	7	9.0	2
Pawnee.....	76	12	15.8	44	57.9	13	17.1	7	9.2	1
Phillips.....	88	19	21.6	55	62.5	9	10.2	5	5.7	-
Pottawatomie.....	259	70	27.0	129	49.8	39	15.1	21	8.1	5
Pratt.....	117	19	16.2	71	60.7	13	11.1	14	12.0	1
Rawlins.....	26	5	19.2	16	61.6	3	11.5	2	7.7	-
Reno.....	884	193	21.8	486	55.0	146	16.5	59	6.7	2
Republic.....	47	13	27.7	27	57.4	4	8.5	3	6.4	-
Rice.....	125	20	16.0	69	55.2	23	18.4	13	10.4	2
Riley.....	899	190	21.1	476	53.0	181	20.1	52	5.8	2
Rooks.....	53	14	26.4	30	56.6	8	15.1	1	1.9	-
Rush.....	46	10	21.8	29	63.0	3	6.5	4	8.7	-
Russell.....	80	23	28.8	36	45.0	17	21.2	4	5.0	-
Saline.....	751	143	19.1	522	69.5	55	7.3	31	4.1	1
Scott.....	61	17	27.9	29	47.5	6	9.8	9	14.8	-
Sedgwick.....	7,686	1,115	14.5	5,267	68.5	723	9.4	581	7.6	152
Seward.....	506	47	9.3	195	38.5	98	19.4	166	32.8	28
Shawnee.....	2,451	874	35.7	1,263	51.5	165	6.7	149	6.1	12
Sheridan.....	22	5	22.7	14	63.7	3	13.6	-	-	1
Sherman.....	80	23	28.7	46	57.5	6	7.5	5	6.2	2
Smith.....	34	16	47.1	15	44.1	2	5.9	1	2.9	-
Stafford.....	46	10	21.7	27	58.7	5	10.9	4	8.7	-
Stanton.....	44	15	34.1	20	45.4	5	11.4	4	9.1	-
Stevens.....	92	8	8.7	42	45.7	20	21.7	22	23.9	6
Sumner.....	322	40	12.4	235	73.0	31	9.6	16	5.0	2
Thomas.....	106	35	33.0	53	50.0	11	10.4	7	6.6	-
Trego.....	32	12	37.5	15	46.9	5	15.6	-	-	-
Wabaunsee.....	79	26	32.9	43	54.5	5	6.3	5	6.3	-
Wallace.....	22	7	31.8	12	54.6	-	-	3	13.6	-
Washington.....	61	10	16.4	36	59.0	8	13.1	7	11.5	1
Wichita.....	27	11	40.8	8	29.6	2	7.4	6	22.2	-
Wilson.....	124	40	32.2	58	46.8	9	7.3	17	13.7	-
Woodson.....	31	10	32.3	13	41.9	5	16.1	3	9.7	-
Wyandotte.....	2,782	808	29.0	1,260	45.3	281	10.1	433	15.6	27

\*Includes only Kansas resident live births for which number of prenatal visits and month care began were reported on the birth certificate.  
Residence data.

Source: Center for Health & Environmental Statistics  
Kansas Department of Health and Environment

Number and Percent of Live Births by Birth Weight  
By Adequacy of Prenatal Care Utilization (APNCU) Index  
Kansas, 2000

Birth Weight (Grams)	Live Births*	APNCU Category								Not Stated
		Adequate Plus		Adequate		Intermediate		Inadequate		
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Total.....	39,119	9,837	25.1	22,085	56.5	3,797	9.7	3,400	8.7	535
Under 2,500(Low).....	2,674	1,559	58.3	708	26.5	115	4.3	292	10.9	78
2,500-4,499(Normal)..	35,805	8,175	22.8	20,973	58.6	3,611	10.1	3,046	8.5	454
4,500 and Over(High)..	640	103	16.1	404	63.1	71	11.1	62	9.7	3
Not Stated.....	-	-	n/a	-	n/a	-	n/a	-	n/a	-

n/a Not applicable

\*Includes only Kansas resident live births for which number of prenatal visits and month care began were reported on the birth certificate.  
Residence data.

Source: Center for Health & Environmental Statistics  
Kansas Department of Health and Environment

Number and Percent of Live Births by Race and Hispanic Origin  
By Adequacy of Prenatal Care Utilization (APNCU) Index  
Kansas, 2000

Race and Hispanic Origin	Live Births*	APNCU Category								Not Stated
		Adequate Plus		Adequate		Intermediate		Inadequate		
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Total.....	39,119	9,837	25.1	22,085	56.5	3,797	9.7	3,400	8.7	535
White.....	34,709	8,764	25.3	19,824	57.1	3,339	9.6	2,782	8.0	449
Black.....	2,807	731	26.0	1,370	48.8	271	9.7	435	15.5	51
American Indian.....	422	101	23.9	211	50.0	42	10.0	68	16.1	9
Asian/Pacific Islander.....	1,044	217	20.8	604	57.9	130	12.4	93	8.9	21
Other NonWhite.....	59	9	15.3	34	57.6	7	11.9	9	15.2	3
Not Stated.....	78	15	n/a	42	n/a	8	n/a	13	n/a	2
Hispanic**.....	4,618	831	18.0	2,114	45.8	642	13.9	1,031	22.3	124

n/a Not applicable

\*Includes only Kansas resident live births for which number of prenatal visits and month care began were reported on the birth certificate.

\*\*Hispanic origin can be of any race Residence data.

Source: Center for Health & Environmental Statistics  
Kansas Department of Health and Environment



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