

Kansas

Adequacy of Prenatal Care
Utilization Index
Kansas, 2004



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: 1st or 2nd month

Adequate: 3rd or 4th month

Intermediate: 5th or 6th month

Inadequate: 7th 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

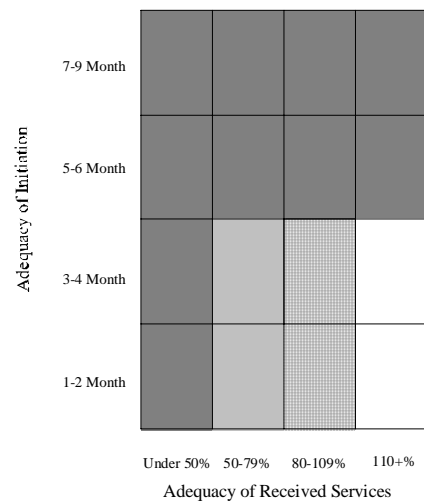
Adequate Plus: Prenatal care begun by the 4th month and 110% or more of recommended visits received

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

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

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

Adequacy of Prenatal Care Utilization Index Matrix



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

This product can be found on the Worldwide Web at: <http://www.kdhe.state.ks.us/ches/>

**Adequacy of Prenatal Care Utilization Index
Kansas Residents*, 2004**

Adequacy of Initiation	7-9 Month	306	142	226	325
	5-6 Month	60	328	689	953
	3-4 Month	165	1,110	5,059	2,711
	1-2 Month	194	2,798	16,288	7,796
		Under 50%	50-79%	80-109%	110+%
		Adequacy of Received Services			

Summary Index

-  Inadequate
-  Intermediate
-  Adequate
-  Adequate Plus

*Includes only the 39,150 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, 2004

County of Residence	Live Births*	APNCU Category**								Not Stated
		Adequate Plus		Adequate		Intermediate		Inadequate		
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Kansas.....	39,150	10,507	26.8	21,347	54.5	3,908	10.0	3,388	8.7	403
Allen.....	156	54	34.6	76	48.7	15	9.6	11	7.1	0
Anderson.....	92	31	33.7	38	41.3	10	10.9	13	14.1	0
Atchison.....	245	84	34.3	117	47.7	21	8.6	23	9.4	0
Barber.....	48	11	22.9	30	62.5	4	8.3	3	6.3	0
Barton.....	312	78	25.0	160	51.3	31	9.9	43	13.8	7
Bourbon.....	217	91	41.9	95	43.8	19	8.8	12	5.5	2
Brown.....	133	40	30.1	65	48.9	11	8.2	17	12.8	0
Butler.....	762	186	24.4	510	66.9	35	4.6	31	4.1	10
Chase.....	46	5	10.9	29	63.0	8	17.4	4	8.7	0
Chautauqua.....	48	12	25.0	25	52.1	6	12.5	5	10.4	1
Cherokee.....	236	72	30.5	115	48.8	14	5.9	35	14.8	1
Cheyenne.....	25	4	16.0	13	52.0	8	32.0	0	0.0	1
Clark.....	26	10	38.4	8	30.8	4	15.4	4	15.4	0
Clay.....	91	27	29.7	40	43.9	14	15.4	10	11.0	0
Cloud.....	99	30	30.3	56	56.6	6	6.0	7	7.1	0
Coffey.....	101	28	27.7	60	59.4	8	7.9	5	5.0	0
Comanche.....	23	4	17.4	12	52.2	4	17.4	3	13.0	1
Cowley.....	425	128	30.1	217	51.1	43	10.1	37	8.7	1
Crawford.....	524	181	34.6	275	52.5	39	7.4	29	5.5	1
Decatur.....	16	3	18.8	12	75.0	0	0.0	1	6.2	0
Dickinson.....	207	53	25.6	116	56.0	24	11.6	14	6.8	1
Doniphan.....	71	20	28.2	45	63.4	2	2.8	4	5.6	0
Douglas.....	1,223	359	29.3	610	49.9	144	11.8	110	9.0	34
Edwards.....	38	8	21.0	19	50.0	5	13.2	6	15.8	0
Elk.....	42	9	21.4	24	57.1	7	16.7	2	4.8	2
Ellis.....	364	66	18.1	257	70.6	26	7.2	15	4.1	1
Ellsworth.....	42	7	16.7	27	64.3	6	14.3	2	4.7	0
Finney.....	796	158	19.9	296	37.2	185	23.2	157	19.7	8
Ford.....	629	126	20.0	246	39.1	132	21.0	125	19.9	2
Franklin.....	370	124	33.5	188	50.8	35	9.5	23	6.2	5
Geary.....	494	98	19.8	267	54.0	67	13.6	62	12.6	1
Gove.....	24	5	20.8	11	45.8	4	16.7	4	16.7	0
Graham.....	26	5	19.2	14	53.9	5	19.2	2	7.7	0
Grant.....	124	24	19.3	63	50.8	25	20.2	12	9.7	4
Gray.....	102	22	21.6	46	45.1	19	18.6	15	14.7	0
Greeley.....	22	7	31.8	8	36.4	4	18.2	3	13.6	1
Greenwood.....	78	18	23.1	46	59.0	2	2.5	12	15.4	2
Hamilton.....	38	7	18.4	15	39.5	7	18.4	9	23.7	0
Harper.....	57	7	12.3	40	70.2	4	7.0	6	10.5	0
Harvey.....	381	117	30.7	214	56.2	18	4.7	32	8.4	5
Haskell.....	82	14	17.1	28	34.2	17	20.7	23	28.0	4
Hodgeman.....	18	6	33.3	5	27.8	5	27.8	2	11.1	0
Jackson.....	178	61	34.3	90	50.5	14	7.9	13	7.3	0
Jefferson.....	193	64	33.2	94	48.7	21	10.9	14	7.2	3
Jewell.....	21	8	38.1	10	47.6	2	9.5	1	4.8	0
Johnson.....	7,637	2,728	35.7	3,950	51.7	612	8.0	347	4.6	14
Kearny.....	70	15	21.4	27	38.6	15	21.4	13	18.6	0
Kingman.....	76	13	17.1	53	69.7	7	9.2	3	4.0	0
Kiowa.....	36	7	19.5	18	50.0	7	19.4	4	11.1	0
Labette.....	257	83	32.3	119	46.3	30	11.7	25	9.7	4
Lane.....	13	0	0.0	7	53.8	3	23.1	3	23.1	0
Leavenworth.....	905	333	36.8	437	48.3	83	9.2	52	5.7	4
Lincoln.....	34	6	17.7	23	67.6	2	5.9	3	8.8	1
Linn.....	122	40	32.8	60	49.2	15	12.3	7	5.7	0
Logan.....	26	2	7.7	17	65.4	5	19.2	2	7.7	0

Adequacy of Prenatal Care Utilization (APNCU) Index
By County of Residence
Kansas, 2004

County of Residence	Live Births*	APNCU Category**								Not Stated
		Adequate Plus		Adequate		Intermediate		Inadequate		
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Lyon.....	490	124	25.3	260	53.0	39	8.0	67	13.7	20
Marion.....	137	44	32.1	72	52.5	9	6.6	12	8.8	1
Marshall.....	126	31	24.6	61	48.4	28	22.2	6	4.8	2
McPherson.....	364	92	25.3	231	63.4	24	6.6	17	4.7	2
Meade.....	52	6	11.5	28	53.8	7	13.5	11	21.2	3
Miami.....	418	137	32.8	221	52.9	34	8.1	26	6.2	2
Mitchell.....	61	9	14.8	44	72.1	4	6.6	4	6.5	0
Montgomery.....	481	203	42.2	171	35.6	55	11.4	52	10.8	14
Morris.....	57	6	10.5	29	50.9	16	28.1	6	10.5	2
Morton.....	46	8	17.4	22	47.8	8	17.4	8	17.4	2
Nemaha.....	119	24	20.2	66	55.4	24	20.2	5	4.2	3
Neosho.....	222	75	33.8	116	52.2	18	8.1	13	5.9	2
Ness.....	30	8	26.7	17	56.7	1	3.3	4	13.3	0
Norton.....	49	5	10.2	27	55.1	14	28.6	3	6.1	1
Osage.....	179	55	30.7	93	52.0	11	6.1	20	11.2	1
Osborne.....	31	5	16.1	16	51.6	7	22.6	3	9.7	0
Ottawa.....	73	12	16.5	52	71.2	7	9.6	2	2.7	0
Pawnee.....	57	8	14.0	33	57.9	6	10.5	10	17.6	3
Phillips.....	53	12	22.6	32	60.4	7	13.2	2	3.8	0
Pottawatomie.....	288	68	23.6	164	56.9	46	16.0	10	3.5	6
Pratt.....	110	26	23.6	65	59.1	10	9.1	9	8.2	2
Rawlins.....	16	8	50.0	5	31.3	2	12.5	1	6.2	0
Reno.....	832	201	24.2	497	59.7	78	9.4	56	6.7	3
Republic.....	46	18	39.1	22	47.8	4	8.7	2	4.4	0
Rice.....	137	21	15.3	80	58.4	15	11.0	21	15.3	0
Riley.....	821	173	21.1	416	50.6	187	22.8	45	5.5	2
Rooks.....	54	10	18.5	32	59.3	10	18.5	2	3.7	1
Rush.....	34	6	17.6	21	61.8	5	14.7	2	5.9	0
Russell.....	77	15	19.5	46	59.7	8	10.4	8	10.4	0
Saline.....	777	179	23.0	463	59.6	75	9.7	60	7.7	3
Scott.....	64	9	14.1	26	40.6	12	18.7	17	26.6	1
Sedgwick.....	7,629	1171	15.3	5265	69.0	554	7.3	639	8.4	128
Seward.....	486	110	22.7	208	42.8	58	11.9	110	22.6	40
Shawnee.....	2,481	832	33.5	1260	50.8	189	7.6	200	8.1	3
Sheridan.....	33	11	33.4	17	51.5	4	12.1	1	3.0	0
Sherman.....	73	24	32.9	33	45.2	12	16.4	4	5.5	0
Smith.....	32	8	25.0	21	65.6	3	9.4	0	0.0	0
Stafford.....	39	7	17.9	23	59.0	4	10.3	5	12.8	1
Stanton.....	41	18	43.9	18	43.9	2	4.9	3	7.3	3
Stevens.....	81	14	17.3	40	49.4	15	18.5	12	14.8	3
Sumner.....	285	77	27.0	170	59.7	26	9.1	12	4.2	1
Thomas.....	99	26	26.3	63	63.6	6	6.1	4	4.0	1
Trego.....	30	7	23.4	19	63.3	3	10.0	1	3.3	0
Wabaunsee.....	88	23	26.1	55	62.5	7	8.0	3	3.4	1
Wallace.....	14	6	42.9	6	42.8	2	14.3	0	0.0	0
Washington.....	60	19	31.7	33	55.0	4	6.7	4	6.6	0
Wichita.....	46	10	21.7	21	45.7	10	21.7	5	10.9	0
Wilson.....	116	43	37.1	53	45.7	12	10.3	8	6.9	3
Woodson.....	32	11	34.4	18	56.2	3	9.4	0	0.0	0
Wyandotte.....	2,763	793	28.7	1153	41.7	364	13.2	453	16.4	22

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

Number and Percent of Live Births by Birth Weight
By Adequacy of Prenatal Care Utilization (APNCU) Index
Kansas, 2004

Birth Weight (Grams)	Live Births*	APNCU Category								Not Stated
		Adequate Plus		Adequate		Intermediate		Inadequate		
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Total.....	39,150	10,507	26.8	21,347	54.5	3,908	10.0	3,388	8.7	403
Under 2,500(Low).....	2,823	1,673	59.3	739	26.2	140	4.9	271	9.6	67
2,500-4,499(Normal)...	35,838	8,735	24.4	20,331	56.7	3,692	10.3	3,080	8.6	330
4,500 and Over(High).	488	98	20.1	277	56.7	76	15.6	37	7.6	6
Not Stated.....	1	1	n/a	0	n/a	0	n/a	0	n/a	0

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, 2004

Race and Hispanic Origin	Live Births*	APNCU Category								Not Stated
		Adequate Plus		Adequate		Intermediate		Inadequate		
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Total.....	39,150	10,507	26.8	21,347	54.5	3,908	10.0	3,388	8.7	403
White Non-Hispanic.....	27,672	7,815	28.2	15,704	56.8	2,440	8.8	1,713	6.2	173
Black Non-Hispanic.....	2,639	635	24.1	1,291	48.9	332	12.6	381	14.4	32
American Indian Non-Hispanic.....	448	135	30.1	217	48.4	42	9.4	54	12.1	5
Asian/Pacific Islander Non-Hispanic.....	1,084	229	21.1	612	56.5	142	13.1	101	9.3	8
Other NonWhite.....	12	6	50.0	5	41.7	1	8.3	0	0.0	1
Hispanic**.....	5,309	1,082	20.4	2,477	46.6	764	14.4	986	18.6	149
Not Stated.....	1,986	605	n/a	1,041	n/a	187	n/a	153	n/a	35

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