Health Disparities in Natality by Racial and Ethnic Population Groups, Kansas, 2010

Research Summary

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Our Vision – Healthy Kansans Living in Safe and Sustainable Environments

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

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Executive Summary

The well-being of mothers, infants, and children determines the health of the next generation and can help predict future public health challenges for families, communities, and the medical care system. Moreover, healthy birth outcomes and early identification and treatment of health conditions among infants can prevent death or disability and enable children to reach their full potential. A growing body of research has been conducted in recent years into the causes of health and birth outcome disparities among racial and ethnic population groups when compared with the White non-Hispanic population. The causes of persistent disparities in birth outcomes by maternal race/ethnicity remain a priority in epidemiologic research. This report presents 2010 Kansas birth data by maternal population group characterizing disparities in prenatal risks, prenatal care, WIC service utilization, mother's education level, age, and birth outcomes.

- Overall, the greatest disparity in poor birth outcomes was among Black non-Hispanic mothers with 46.6 percent more poor birth outcomes compared to White non-Hispanic mothers, followed by multi-race mothers with a disparity of 36.3 percent and Native American/Alaska Native mothers by 29.1 percent. Hispanic mothers had a lower percentage of poor birth outcomes than White non-Hispanics.

- Among adolescent/teen mothers, disparities in poor birth outcomes were greatest among Multi-race, followed by Native American/Alaska Native, Black non-Hispanic and Hispanic with the least disparity compared to White non-Hispanic adolescent/teen mothers. However, Hispanic mothers without a high school diploma or GED had the greatest disparity among minority populations in poor birth outcomes compared to White non-Hispanic mothers without a high school diploma or GED.

- The greatest disparity in Black non-Hispanic infants with poor outcomes was found among infants of mothers with some college without a degree when compared to infants of White non-Hispanic mothers with the same education level.

- Black non-Hispanic mothers had the greatest disparity in percent of private insurance coverage followed by Native American/Alaska Natives, Hispanics, Multi-race and other non-Hispanics when compared with White non-Hispanic mothers. However, all mothers of minority populations with private insurance, (with the exception of Asian/Pacific Islanders), had lower percentages of poor birth outcomes than White non-Hispanic mothers with private insurance.

- Black non-Hispanic mothers with Medicaid coverage had the greatest disparity in poor birth outcomes, followed by multi-race and Native American/Alaska Natives compared to White non-Hispanic mothers covered by Medicaid.

- Mothers of all racial and ethnic population groups had disparities in percentages receiving adequate prenatal care with the greatest disparities among non-Hispanic

others, Hispanics and Black non-Hispanics. The smallest disparity was among Asian/Pacific Islanders compared with White non-Hispanics receiving adequate prenatal care. Large disparities in percentage not receiving prenatal care were observed for Black non-Hispanic and Hispanics compared to White non-Hispanics not receiving prenatal care.

- Disparities in percentage of population group initiating prenatal care in the first trimester were greatest among Hispanic, Black non-Hispanic and other non-Hispanic mothers compared to White non-Hispanics.

- Among unmarried mothers, disparities in percentage of poor birth outcomes were greatest for Black non-Hispanics followed by multi-race non-Hispanics and Native American/Alaska Natives. On the other hand, married minority population groups, with the exception of Asian/Pacific Islanders and other non-Hispanics, had lower percentages of poor birth outcomes than married White non-Hispanics. However, over half of Black non-Hispanic, Native American/ Alaska Native, multi-race and Hispanic mothers were not married in 2010.

- Disparities in prenatal risk factors existed among Native American/ Alaska Native, multi-race mothers and Black non-Hispanics compared with White non-Hispanics. Hispanic, other non-Hispanic and Asian/ Pacific Islander mothers had lower percentages of prenatal risks compared to White non-Hispanics. Black non-Hispanics and Native American/ Alaska Native had the greatest number of prenatal risks.

- Over half of Black non-Hispanic, Native American/ Alaska Native, Hispanic and 49 percent of multi-race mothers used WIC services in 2010 during their pregnancy compared to almost one third of White non-Hispanics. The greatest disparity in percentage of poor birth outcomes among WIC participants was among Black non-Hispanics and the lowest disparity was among Hispanics compared to White non-Hispanics.

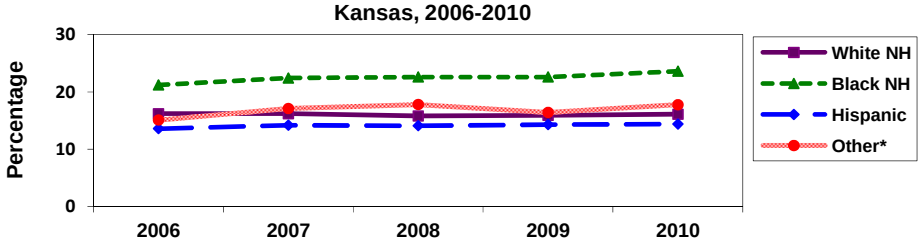
- Disparities in delivery of premature infants were greatest for Black non-Hispanics, followed by multi-race and Native American/ANs compared to White non-Hispanics. Hispanics and other non-Hispanics had lower percentages of premature births than White non-Hispanics.

Introduction

Health disparities refer to differences in disease risk, incidence, prevalence, morbidity, mortality and other adverse conditions, such as unequal access to quality health care, that exist among population groups. Specifically, health disparities refer to differences in health status as a result of avoidable but cumulative social disadvantages [1]. Population groups may be based on race, ethnicity, age, gender, socioeconomic position, immigrant status, sexual minority status, language, disability, homelessness, and geographic area of residence. Studies in health disparities have shown that socioeconomic status improves as income and education improve and birth outcomes have tended to be patterned along levels of socioeconomic status [2, 3]. For example, among population groups based on race and ethnicity, Black non-Hispanic infants are more likely than White non-Hispanic infants to experience poor outcomes [4, 5]. However, despite a greater likelihood of lower socioeconomic status among Hispanics, infants have birth outcomes that approximate those of White non-Hispanic infants [4]. Other factors found to be linked to poor infant health outcomes include mother's marital status [4, 5] and maternal age at time of delivery [4].

In Kansas, 2006-2010, the percentage of poor birth outcomes by population group based on race and ethnicity show disparities in birth outcomes have remained fairly constant. Black non-Hispanics continued to have higher percentages of poor birth outcomes than other population groups, while Hispanics have had the lowest percentages (Figure 1).

Figure 1. Poor infant health/birth outcomes by population group, Kansas, 2006-2010



***Other includes Native American/Alaska Native, Asian/Pacific Islander, Multi-race, other non-Hispanic, and not-stated population groups.**

The purpose of this report is to present information and data for 2010 on births in Kansas by maternal population group based on race/Hispanic origin in an effort to examine maternal risk factors and newborn health disparities among other population groups compared to the White non-Hispanic population. Population groups are shown with indicators including maternal age, education level, marital status, adequacy of prenatal care, primary pay source, WIC service utilization, gestational age of infant at birth, and poor birth outcomes.

Methodology

The Bureau of Epidemiology and Public Health Informatics (BEPHI) Office of Vital Statistics receives reports of births that occur in Kansas. Reporting of Kansas vital events to KDHE is mandated by law (K.S.A. 65-102, K.S.A. 65-2422b, K.S.A. 65-445). Births to Kansas residents that occurred in other states are received via Interstate Jurisdictional Exchange. All statistics reported are based on births to women who were Kansas residents.

KDHE collects birth certificate information consistent with the 2003 U.S. Standard Certificate. Data collected since 2005 are based on the standard certificate as modified for use in Kansas. BEPHI uses an 18 month reporting period when creating an analytical file. Thus all births that occur in a given year – reported during that year or the first six months of the year following – are included in the analytical file. Data used in this report are for 2010 births. The analytical file is considered 99.99 percent complete.

All birth records undergo a two-step quality improvement process. First, the Office of Vital Statistics staff manually review paper certificates for missing or illogical information. The Vital Statistics Data Analysis section performs computerized checks of the data – on an ongoing basis and once prior to closing the analytical file. Corrections or imputation occurs to geographic information, sex of the child, and mother's age. See the technical notes for the *2010 Kansas Annual Summary of Vital Statistics* for more information [6].

Statistical tabulations were created using SAS software 9.2. Some of the tables contained in this report are also included in the *Kansas Annual Summary of Vital Statistics 2010.* This is done to enhance the utility of this report to readers. In this report the reader will see a number of different combinations of health indicators by population groups in the tabulations. This is done to provide the diverse audience of legislators, policy makers, media, program administrators, and the public who closely monitor health disparity issues with a data summary that meets their needs.

This report includes all live births in 2010. Items for which no response was provided are shown as "not stated" (N.S.) in tables throughout this publication. To ensure complete description of the data, the "not stated" count has been included in the denominator when calculating percentages to show all counts.

The Adequacy of Prenatal Care Utilization (APNCU) Index (or Kotelchuck Index) attempts to characterize prenatal care (PNC) utilization based on two independent and distinctive dimensions: adequacy of initiation of PNC and adequacy of received services once care has begun. The APNCU – through the categories of inadequate, intermediate, adequate, and adequate plus – characterizes the adequacy of pregnancy-related health services provided to a woman between conception and delivery. The index does not assess the quality of prenatal care delivered [7].

A relative measure of disparity was employed using the following calculation: ((percent of interest – percent of reference) ÷ percent of reference) x 100, where the percent of interest is the percentage of a population group within a health indicator of interest for

each minority population group and the percent of reference is the percentage of the White non-Hispanic population as the reference group within the corresponding health indicator. The White non-Hispanic population represents the largest proportion of the population and therefore, the most stable group, as well as having more favorable health outcomes in the majority of cases [8]. Disparities were not measured in cases where the number of persons in a population group was below six on the measured health indicator due to lack of reliability.

The White, Black, Native American/Alaska Natives (Native American/AN), Asian/Pacific Islanders (Asian/PI), Multi-race and other are all non-Hispanic population groups. Any race with a Hispanic origin was counted as Hispanic.

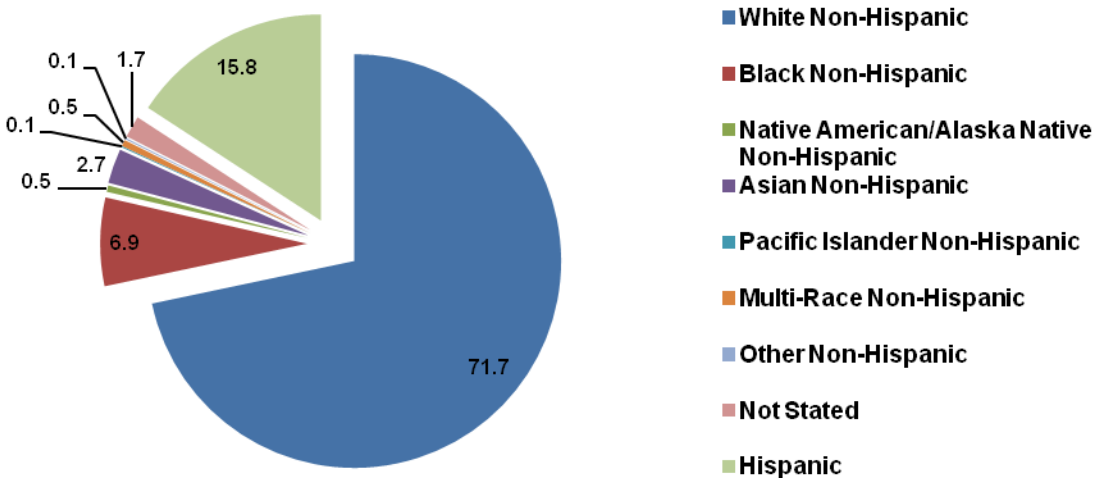
Poor infant health/birth outcomes include: Low birth weight (less than 2500 grams), prematurity (less than 37 weeks gestation), congenital anomalies and abnormal conditions of the newborn (see Technical Notes for the list of abnormal conditions of the newborn).

Results and Discussion

Selected findings are discussed in this section. Additional detailed tables are provided to support evaluation by county or other characteristics in this report. Maps of birth distributions by each population group within health preparedness regions in Kansas are also included.

The percentage of live births by population groups are shown in Figure 2. White non-Hispanics accounted for 71.7 percent of Kansas resident births in 2010, followed by Hispanics with 15.8 percent of births, Black non-Hispanics with 6.9 percent and Asian non-Hispanics comprised 2.7 percent. Pacific Islanders, Native American/Alaska Natives, Multi-race, other non-Hispanics, and the non-stated population category totaled 2.9 percent of Kansas births in 2010.

Figure 2. Percent of total live births by population group, Kansas, 2010



Level of education attainment has been found to be associated with socio-economic status [3]. People working and living in low socioeconomic circumstances are at a higher risk for mortality, morbidity and unhealthy behaviors [9]. Disparities among percentage of births among population groups without a high school diploma existed in Kansas 2010. The disparity was greatest among Hispanics with 4.5 times more births than for White non-Hispanics, followed by Native American/Alaska Natives, other non-Hispanics and Black non-Hispanics with 2.4, 2.3, and 2.0 times more births, respectively, than to white non-Hispanics (Table 2).

Disparities among births with poor outcomes were greatest among mothers without a high school diploma or GED. Hispanics with poor birth outcomes had a disparity of 833.1 percent or 9.3 times more poor birth outcomes than White non-Hispanics followed by Asian/PIs with a disparity of 366.8 percent more births with poor outcomes. Black non-Hispanic and Native Americans without High school diplomas had numbers too low for disparity calculations. Disparities in poor birth outcomes were also seen among mothers with some college, but no degree. Black non-Hispanics had a disparity of 129.1 percent or 2.3 times more births with poor outcomes, followed by Multi-race with 114.5 percent more births with poor outcomes, Native American/ANs with 71.1 percent and Hispanics with 49.4 percent more births with poor outcomes than White non-Hispanics.

Insurance coverage has been shown to be strongly related to better health outcomes [9]. Disparities among population groups with private insurance coverage existed for all population groups (except Asian/PI) when compared with White non-Hispanics. The greatest disparity in having private insurance coverage was among Black non-Hispanics where 67.7 percent fewer mothers had private insurance. The average disparity among the other minority population groups (with the exception of Asian/PI) was 49.1 percent fewer mothers with private insurance compared to White non-Hispanics. Asian/PI had 16.1 percent more mothers with private insurance than white non-Hispanics (Table 4).

Disparities among groups with poor infant outcomes existed among population groups by selected primary payors (Medicaid and private insurance). The greatest disparity among population groups with poor infant outcomes was among Black non-Hispanic mothers paid by Medicaid with a difference of 2.6 times more births with poor outcomes followed by Native American/AN and Multi-race with 2.3 times more births with poor outcomes compared to White non-Hispanic mothers with Medicaid coverage. However, mothers of minority population groups with private insurance (with the exception of Asian/PI) had lower percentages of poor birth outcomes than White non-Hispanic mothers with private insurance as their primary payor. White non-Hispanics with private insurance had 53.4 percent more infants with poor outcomes than Hispanics, 39 percent more than Black non-Hispanics, 31.1 percent more than Native Americans and 32 percent more infants with poor outcomes than multi-race mothers with private insurance (Table 5).

Among the Kansas Health Preparedness Regions, 42.6 percent of Black non-Hispanic infants and 31.1 percent of White non-Hispanic infants were born to Kansas City (KC) Metro region residents. In this region, the disparity in poor infant health outcomes was 95.5 percent more for Black non-Hispanics, 86.2 percent more for Asian/PI, and other non-Hispanics had a disparity of 62.6 percent more infants born with poor health

outcomes compared to White non-Hispanics. Similarly, in the South Central Metro Region, Black non-Hispanics had a disparity of 101.4 percent or twice the number of White non-Hispanic births with poor outcomes.

Furthermore, about one third of Native American/AN births were in the Northeast Corner with a 270.5 percent disparity or 3.7 times more poor infant health outcomes in that region than for White non-Hispanics. A disparity in poor outcomes was also noted among multi-race infants in the Northeast Corner by 169.9 percent or 2.7 times more poor infant health outcomes than for White non-Hispanics in that region. While native American/ANs and multi-race had a higher percentage of births in the Northeast Corner than White non-Hispanics, disparities in poor infant outcomes existed within these two population groups (Tables 6 and 7).

Maternal unmarried status has been found to be associated with low birth weights, pre-term births and small for gestational age births [10]. Among unmarried mothers, disparities exist in poor infant outcomes among the population groups. Black non-Hispanics had the greatest disparity in poor infant health outcomes of 211.6 percent or 3.1 times more births with poor outcomes followed by multi-race non-Hispanic and Native American/AN with two times the number of poor birth outcomes compared with unmarried White non-Hispanic mothers. Disparity was least at 40.2 percent or 1.4 times more poor birth outcomes for unmarried Hispanics compared to White non-Hispanics. Among married mothers disparities exist with non-Hispanic others and Asians with 39.1 percent and 33.9 percent more poor birth outcomes, respectively, than White non-Hispanics. Married White non-Hispanic mothers, however, had 36.5 percent more poor birth outcomes than married Hispanics, 35.4 percent more than married Black non-Hispanics and 17.1 percent more poor birth outcomes than married Native American/ANs. While married minority population groups had lower percentages of poor infant health outcomes than married White non-Hispanics, over half of minority mothers (except Asian/PIs) were not married: 71.9 percent Black non-Hispanic, 67.3 percent Native American/PI, 55.4 percent multi-race and 54.8 percent Hispanic compared to 31.1 percent of unmarried white non-Hispanic mothers (Table 9).

The greatest disparity in adequate prenatal care (includes adequate plus and adequate) was among non-Hispanic others with 37.7 percent fewer mothers obtaining adequate prenatal care than White non-Hispanics followed by Hispanics by 28 percent, Black non-Hispanics by 25.2 percent, Native Americans by 19.2 percent, multi-race non-Hispanic by 6.8 percent and the least disparity was among Asian/PI by 5.4 percent fewer mothers who received adequate prenatal care compared with White non-Hispanics. Likewise, disparities in less than adequate prenatal care (includes intermediate and inadequate) were found with Hispanics with the greatest disparity of 121.8 percent more mothers receiving inadequate prenatal care compared with White non-Hispanics, followed closely by non specified race (103.4%), Black non-Hispanics (97.4%), Native American/ANs (96.3%) and other non-Hispanics by 70.4 percent more mothers receiving inadequate prenatal care compared to White non-Hispanic mothers (Table 10).

Disparities among population groups with poor birth outcomes and receiving intermediate to inadequate prenatal care was greatest for Native American/NAs with

251.2 percent or 3.5 times more infants born with poor outcomes than White non-Hispanics followed by Black non-Hispanics with 179.2 percent or 2.8 times more infants born with poor outcomes. Hispanics had 77.8 percent more poor birth outcomes when receiving inadequate prenatal care than White non-Hispanics. Disparities averaged 64.6 percent more poor birth outcomes among the remaining minority population groups compared with White non-Hispanics receiving intermediate to inadequate prenatal care (Table 11).

Over half of Black non-Hispanics, Native American/PIs, Hispanics and 49 percent of multi-race and 30.4 percent of White non-Hispanic mothers utilized WIC services in 2010. Disparities in poor birth outcomes among WIC users were among Black non-Hispanics by 151.7 percent, Native American/ANs by 111 percent, Multi-race by 106.7 percent and Hispanics with a disparity of 66.6 percent more poor birth outcomes than among White non-Hispanic WIC users. Among the population groups who did not utilize WIC services, the only disparity in poor birth outcomes was among Asian/PI with 21.4 percent disparity in infants born with poor health outcomes compared to White non-Hispanics (Tables 13 and 14).

Disparities among teen/adolescents (ages 10-19) becoming mothers among population groups were multi-race by 132.5 percent or 2.3 times more teen/adolescent mothers than among White non-Hispanics, followed by Hispanics with 114.9 percent, Black non-Hispanics by 107 percent and Native American/ANs by 83 percent more teen/adolescent mothers than for White non-Hispanics. All minority population groups except other non-Hispanics had fewer mothers between the ages of 20-29 years of age than White non-Hispanics. Asian/PIs had 61 percent more mothers over 30 years of age than White non-Hispanics and other non-Hispanics had 22.8 percent more older mothers. Disparities on average among older mothers in the other minority population groups was about 30 percent fewer mothers 30 years and older compared to White non-Hispanics (Table 16).

Among adolescent/teen mothers, disparities in poor birth outcomes were greatest among Multi-race by 287.1 percent, followed by Native American/AN by 173.2 percent, Black non-Hispanic 131.8 percent and Hispanic with the least disparity of 88.9 percent compared to White non-Hispanic adolescent/teen mothers (Table 17).

The receipt of early and adequate prenatal care is considered essential in identifying and moderating potential risks that contribute to poor birth outcomes [11]. Over half of white non-Hispanic (51.2%), black non-Hispanic (56.3%), Native American/PI (74.3%) and multi-race (66.1%) population groups had at least one prenatal risk factors listed in Table 17 in 2010. The Hispanic, Asian/PI and other non-Hispanic populations had the least percentages of mothers with prenatal risk factors, with 37.8 percent, 36.9 percent and 27.8 percent, respectively. The greatest disparity among population groups with pre-pregnancy diabetes was 64.1 percent among Hispanics compared with White non-Hispanics, while the greatest disparity among population groups with gestational diabetes was for Asian/PI by 141.3 percent followed by Native America/AN with a disparity of 109.9 percent, Hispanics with 41.3 percent and multi-race with 22.8 percent more mothers with gestational diabetes than for White non-Hispanics. Disparities

among population groups with pre-eclampsia were highest among Native American/ANs with 44.6 percent more pregnant women with pre-eclampsia followed by Multi-race with12.7 percent more than among White non-Hispanics. Disparities in prenatal risk factors among Black non-Hispanics included eclampsia (69.2%), previous preterm birth (61.3%), previous poor pregnancy outcome (36%), alcohol use during pregnancy (49%), and sexually transmitted disease (139.7%) compared to White non-Hispanics. Disparities in prenatal risk factors among Native Americans in addition to gestational diabetes, pre-pregnancy hypertension and pre-eclampsia included previous poor pregnancy outcome (87.1%), sexually transmitted disease (95.8%), and smoking during pregnancy with a disparity of 72.2 percent more smokers than for White non-Hispanics. A large disparity was also found for sexually transmitted disease among Multi-race with 145.3 percent more than among White non-Hispanics (Table 18).

Overall, disparities among population groups having premature infants was greatest for Black non-Hispanics by 42 percent, Multi-race with 31.7, Native Americans with 20.7 percent and Asian/PIs with 8.3 percent more preterm births than White non-Hispanics. Hispanics and other non-Hispanics had lower percentages of premature births than White non-Hispanics (Table 19). The greatest disparity among population groups with infants born very pre-term were among Black non-Hispanics with 104.2 percent more pre-term births than for White non-Hispanics. The disparity among moderately premature infants was greatest for multi-race with 161.9 percent and Black non-Hispanics with 81.9 percent more moderately pre-term births than among White non-Hispanics.

Disparities in the initiation of prenatal care during the first trimester was greatest for Hispanic mothers with 29.8 percent fewer mothers initiating prenatal care in the first trimester, followed by Black non-Hispanics with 26.4 percent, other non-Hispanics with 24.6 percent and Native Americans with 17.5 percent fewer mothers beginning prenatal care in the first trimester. Disparities among population groups with no prenatal care were greatest for Black non-Hispanics by 339.2 percent or 4.4 times more mothers with no prenatal care followed by Hispanics with a disparity of 257.3 percent and Asians with 107 percent more mothers without prenatal care compared to White non-Hispanics (Table 20).

Limitations

The aggregation grid for population groups is shown in the Technical Notes of this report. Application of this grid assures that every combination of race and origin is assigned to a population group. In instances where the Hispanic origin of an individual is unknown, the person is assigned to a population group solely on the basis of race and is considered non-Hispanic. In the instance where more than one race is chosen, for example, Black and White, they have been assigned to the multi-race category which results in lower numbers in the data under the Black race category and the White race category.

KDHE publishes data on Kansas resident births and deaths. If the event occurs out of state and the state is not using the latest revision of the birth certificate, missing data may result. This may be more common in births to residents of Kansas border counties.

Conclusions

Maternal and infant health disparities exist among the population groups in Kansas. Consistent with past research, disparities were found among the black non-Hispanic population with respect to poor birth outcomes associated with mother's level of education, maternal age, Medicaid coverage and marital status compared to White-non-Hispanics [3, 11]. Black non-Hispanics and Native Americans had the highest number of prenatal risk factors among the population groups. Large disparities were seen in sexually transmitted disease among Black non-Hispanics and Multi-race pregnancies. The greatest disparities in smoking during pregnancy were among Native Americans and Multi-race. Most minority populations (except Asian/PI and other non--Hispanic) had larger percentages of teen/adolescent mothers than White non-Hispanics. Hispanics and Asian/PIs without high school diplomas had the greatest disparities in births with poor outcomes compared to White non-Hispanics without high school diplomas.

Among married minority population groups (except Asian/PI and non-Hispanic others) there were lower percentages of poor birth outcomes than for married White non-Hispanics. However, over half of Black non-Hispanics, Native American/ANs, Multi-races and Hispanics were unmarried. Disparities existed among all minority groups in adequacy of prenatal care and initiation of prenatal care in the first trimester with the greatest disparities among Hispanics. However, Black non-Hispanics had the greatest disparity in no prenatal care followed by Hispanics. While both Hispanics and Black non-Hispanics had similar disparities in adequacy of prenatal care and insurance coverage, Hispanics did not show the extent of disparities in poor birth outcomes as those seen in Black non-Hispanics. In addition, minority population groups (with the exception of Asian/PI) with private insurance coverage had lower percentages of poor birth outcomes than White non-Hispanics with private insurance.

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Detailed Tables and Maps

Level of Indicator	White Non-Hispanic		Black Non-Hispanic		Native American/ Alaska Native Non-Hispanic		Asian/Pacific Islands Non-Hispanic		Muti Race Non-Hispanic		Other Non-Hispanic		N.S.		Hispanic		Kansas Total	
Table 1. Number and percentage of births with poor outcomes by population group																		
Poor Birth Outcomes																		
No	24,331	83.9%	2,124	76.4%	160	79.2%	949	82.7%	523	78.1%	163	84.0%	34	87.2%	5,485	85.6%	33,769	83.5%
Yes	4,669	16.1%	656	23.6%	42	20.8%	198	17.3%	147	21.9%	31	16.0%	5	12.8%	922	14.4%	6,670	16.5%
Total	29,000	100%	2,780	100%	202	100%	1,147	100%	670	100%	194	100%	39	100%	6,407	100%	40,439	100%
Table 2. Population group of mother by level of education attained																		
Education	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
8th Grade or Less	282	1.0%	24	0.9%	4	2.0%	38	3.3%	7	1.0%	21	10.8%	0	0.0%	996	15.5%	1,372	3.4%
Grade 9-12, no diploma	2,641	9.1%	556	20.0%	45	22.3%	79	6.9%	120	17.9%	24	12.4%	1	2.6%	1,931	30.1%	5,397	13.3%
High school diploma or GED	6,229	21.5%	922	33.2%	54	26.7%	194	16.9%	189	28.2%	47	24.2%	2	5.1%	1,768	27.6%	9,405	23.3%
Some college, no Degree	6,964	24.0%	807	29.0%	64	31.7%	175	15.3%	191	28.5%	23	11.9%	6	15.4%	998	15.6%	9,228	22.8%
Associate degree	2,477	8.5%	166	6.0%	20	9.9%	54	4.7%	51	7.6%	8	4.1%	4	10.3%	229	3.6%	3,009	7.4%
Bachelor's degree	7,304	25.2%	203	7.3%	9	4.5%	334	29.1%	80	11.9%	40	20.6%	9	23.1%	331	5.2%	8,310	20.5%
Master's degree	2,379	8.2%	73	2.6%	5	2.5%	182	15.9%	26	3.9%	18	9.3%	3	7.7%	71	1.1%	2,757	6.8%
Doctorate	618	2.1%	15	0.5%	0	0.0%	79	6.9%	5	0.7%	9	4.6%	1	2.6%	15	0.2%	742	1.8%
N.S.	106	0.4%	14	0.5%	1	0.5%	12	1.0%	1	0.1%	4	2.1%	13	33.3%	68	1.1%	219	0.5%
Total	29,000	100%	2,780	100%	202	100%	1,147	100%	670	100%	194	100%	39	100%	6,407	100%	40,439	100%
Table 3. Proportion of births with poor outcomes by population group of mother and level of education attained																		
Education	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
8th Grade or Less	25	0.1%	2	0.1%	1	0.5%	3	0.3%	0	0.0%	0	0.0%	0	0.0%	13	0.2%	44	0.1%
Grade 9-12, no diploma	40	0.1%	2	0.1%	0	0.0%	9	0.8%	3	0.4%	6	3.1%	0	0.0%	121	1.9%	181	0.4%
High school diploma or GED	477	1.6%	145	5.2%	10	5.0%	14	1.2%	21	3.1%	3	1.5%	1	2.6%	269	4.2%	940	2.3%
Some college, no Degree	1,117	3.9%	205	7.4%	9	4.5%	35	3.1%	58	8.7%	6	3.1%	0	0.0%	257	4.0%	1,687	4.2%
Associate degree	1,221	4.2%	194	7.0%	16	7.9%	31	2.7%	43	6.4%	9	4.6%	2	5.1%	159	2.5%	1,675	4.1%
Bachelor's degree	384	1.3%	39	1.4%	5	2.5%	14	1.2%	3	0.4%	1	0.5%	0	0.0%	41	0.6%	487	1.2%
Master's degree	996	3.4%	52	1.9%	1	0.5%	50	4.4%	15	2.2%	4	2.1%	2	5.1%	53	0.8%	1,173	2.9%
Doctorate	330	1.1%	15	0.5%	0	0.0%	32	2.8%	3	0.4%	2	1.0%	0	0.0%	8	0.1%	390	1.0%
N.S.	79	0.3%	2	0.1%	0	0.0%	10	0.9%	1	0.1%	0	0.0%	0	0.0%	1	0.0%	93	0.2%
Total	4,669	16%	656	24%	42	21%	198	17%	147	22%	31	16%	5	13%	922	14%	6,670	16%
Table 4. Total number and percentage of births by population group and primary payor																		
Pay Source	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Medicaid	8,486	29.3%	1,720	61.9%	119	58.9%	175	15.3%	337	50.3%	57	29.4%	11	28.2%	2,254	35.2%	13,159	32.5%
Private Ins	17,002	58.6%	592	21.3%	48	23.8%	781	68.1%	226	33.7%	69	35.6%	12	30.8%	1,623	25.3%	20,353	50.3%
Self-pay	1,093	3.8%	131	4.7%	6	3.0%	75	6.5%	21	3.1%	30	15.5%	6	15.4%	1,656	25.8%	3,018	7.5%
Indian Health Services	8	0.0%	3	0.1%	16	7.9%	1	0.1%	0	0.0%	0	0.0%	0	0.0%	2	0.0%	30	0.1%
Champus/Tricare	1,623	5.6%	198	7.1%	6	3.0%	59	5.1%	66	9.9%	8	4.1%	2	5.1%	259	4.0%	2,221	5.5%
Other Gov	262	0.9%	41	1.5%	3	1.5%	10	0.9%	7	1.0%	9	4.6%	1	2.6%	185	2.9%	518	1.3%
Other	360	1.2%	72	2.6%	1	0.5%	37	3.2%	3	0.4%	19	9.8%	0	0.0%	279	4.4%	771	1.9%
Unknown	166	0.6%	23	0.8%	3	1.5%	9	0.8%	10	1.5%	2	1.0%	7	17.9%	149	2.3%	369	0.9%
Total	29,000	100%	2,780	100%	202	100%	1,147	100%	670	100%	194	100%	39	100%	6,407	100%	40,439	100%
Table 5. Proportion of births with poor outcomes by population group of mother and primary payor																		
Pay Source	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Medicaid	1,453	5.0%	361	13.0%	23	11.4%	31	2.7%	77	11.5%	10	5.2%	1	2.6%	309	4.8%	2,265	5.6%
Private/employer Ins	2,291	7.9%	134	4.8%	11	5.4%	127	11.1%	36	5.4%	11	5.7%	1	2.6%	236	3.7%	2,847	7.0%
Self-pay	185	0.6%	33	1.2%	1	0.5%	8	0.7%	1	0.1%	2	1.0%	0	0.0%	208	3.2%	438	1.1%
Indian Health Service	5	0.0%	1	0.0%	2	1.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	8	0.0%
Champus/Tricare	596	2.1%	103	3.7%	3	1.5%	24	2.1%	27	4.0%	7	3.6%	2	5.1%	110	1.7%	872	2.2%
Other gov	41	0.1%	11	0.4%	1	0.5%	2	0.2%	2	0.3%	1	0.5%	0	0.0%	27	0.4%	85	0.2%
Other	64	0.2%	8	0.3%	0	0.0%	5	0.4%	1	0.1%	0	0.0%	0	0.0%	18	0.3%	96	0.2%
Unknown	34	0.1%	5	0.2%	1	0.5%	1	0.1%	3	0.4%	0	0.0%	1	2.6%	14	0.2%	59	0.1%
Total	4,669	16%	656	24%	42	21%	198	17%	147	22%	31	16%	5	13%	922	14%	6,670	16%

Level of Indicator	White Non-Hispanic		Black Non-Hispanic		Native American/ Alaska Native Non-Hispanic		Asian/Pacific Islands Non-Hispanic		Muti Race Non-Hispanic		Other Non-Hispanic		N.S.		Hispanic		Kansas Total	
Table 6. Total number and percentage of births by population group and Kansas health preparedness region																		
Preparedness Regions	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Central Kansas Region	1,337	4.6%	36	1.3%	7	3.5%	23	2.0%	32	4.8%	1	0.5%	0	0.0%	271	4.2%	1,707	4.2%
East Central Coalition	1,069	3.7%	17	0.6%	4	2.0%	11	1.0%	22	3.3%	2	1.0%	4	10.3%	137	2.1%	1,266	3.1%
Ellis County	332	1.1%	3	0.1%	2	1.0%	4	0.3%	5	0.7%	1	0.5%	0	0.0%	28	0.4%	375	0.9%
KC Mmetro Region	9,023	31.1%	1,183	42.6%	42	20.8%	584	50.9%	149	22.2%	130	67.0%	11	28.2%	1,707	26.6%	12,829	31.7%
Lower 8 of SE Kansas	1,594	5.5%	57	2.1%	16	7.9%	12	1.0%	42	6.3%	8	4.1%	7	17.9%	96	1.5%	1,832	4.5%
North Central Kansas	979	3.4%	4	0.1%	4	2.0%	4	0.3%	10	1.5%	2	1.0%	2	5.1%	41	0.6%	1,046	2.6%
Northeast Corner	2,640	9.1%	230	8.3%	67	33.2%	48	4.2%	111	16.6%	7	3.6%	6	15.4%	444	6.9%	3,553	8.8%
Northwest Bioterror	361	1.2%	2	0.1%	0	0.0%	4	0.3%	3	0.4%	0	0.0%	1	2.6%	19	0.3%	390	1.0%
Rush County	29	0.1%	0	0.0%	0	0.0%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	0	0.0%	30	0.1%
South Central Coalition	385	1.3%	1	0.0%	3	1.5%	3	0.3%	1	0.1%	1	0.5%	0	0.0%	32	0.5%	426	1.1%
South East Kansas Multi-County	481	1.7%	5	0.2%	3	1.5%	2	0.2%	1	0.1%	0	0.0%	1	2.6%	13	0.2%	506	1.3%
South-Central Metro Region	7,646	26.4%	974	35.0%	42	20.8%	340	29.6%	200	29.9%	19	9.8%	1	2.6%	1,791	28.0%	11,013	27.2%
Southwest Kansas Health Initiative	247	0.9%	7	0.3%	2	1.0%	5	0.4%	6	0.9%	1	0.5%	1	2.6%	474	7.4%	743	1.8%
Southwest Surrveillance	423	1.5%	10	0.4%	1	0.5%	4	0.3%	1	0.1%	0	0.0%	0	0.0%	494	7.7%	933	2.3%
West Central Public Health	198	0.7%	0	0.0%	1	0.5%	1	0.1%	3	0.4%	0	0.0%	0	0.0%	31	0.5%	234	0.6%
Western Pyramid	416	1.4%	12	0.4%	1	0.5%	26	2.3%	7	1.0%	5	2.6%	0	0.0%	538	8.4%	1,005	2.5%
Wildcat Region	1,840	6.3%	239	8.6%	7	3.5%	76	6.6%	76	11.3%	17	8.8%	5	12.8%	291	4.5%	2,551	6.3%
Total	29,000	100%	2,780	100%	202	100%	1,147	100%	670	100%	194	100%	39	100%	6,407	100%	40,439	100%
Table 7. Proportion of births with poor outcomes by population group of mother and Kansas health preparedness region																		
Preparedness Regions	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Central Kansas Region	181	0.6%	2	0.1%	1	0.5%	3	0.3%	8	1.2%	0	0.0%	0	0.0%	34	0.5%	229	0.6%
East Central Coalition	162	0.6%	3	0.1%	2	1.0%	2	0.2%	4	0.6%	1	0.5%	0	0.0%	21	0.3%	195	0.5%
Ellis County	39	0.1%	1	0.0%	1	0.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	0.0%	44	0.1%
KC Mmetro Region	1,195	4.1%	224	8.1%	11	5.4%	88	7.7%	27	4.0%	13	6.7%	1	2.6%	201	3.1%	1,760	4.4%
Lower 8 of SE Kansas	250	0.9%	15	0.5%	2	1.0%	4	0.3%	8	1.2%	2	1.0%	1	2.6%	16	0.2%	298	0.7%
North Central Kansas	157	0.5%	0	0.0%	1	0.5%	0	0.0%	4	0.6%	0	0.0%	0	0.0%	7	0.1%	169	0.4%
Northeast Corner	465	1.6%	54	1.9%	12	5.9%	6	0.5%	29	4.3%	2	1.0%	0	0.0%	67	1.0%	635	1.6%
Northwest Bioterror	58	0.2%	1	0.0%	0	0.0%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	3	0.0%	63	0.2%
Rush County	1	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.0%
South Central Coalition	56	0.2%	0	0.0%	1	0.5%	2	0.2%	0	0.0%	0	0.0%	0	0.0%	5	0.1%	64	0.2%
South East Kansas Multi-County	87	0.3%	1	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	2.6%	0	0.0%	89	0.2%
South-Central Metro Region	1,212	4.2%	234	8.4%	6	3.0%	59	5.1%	29	4.3%	3	1.5%	0	0.0%	232	3.6%	1,775	4.4%
Southwest Kansas Health Initiative	34	0.1%	5	0.2%	0	0.0%	1	0.1%	1	0.1%	0	0.0%	0	0.0%	67	1.0%	108	0.3%
Southwest Surrveillance	51	0.2%	1	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	51	0.8%	103	0.3%
West Central Public Health	29	0.1%	0	0.0%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	0	0.0%	2	0.0%	32	0.1%
Western Pyramid	69	0.2%	3	0.1%	1	0.5%	6	0.5%	1	0.1%	1	0.5%	0	0.0%	96	1.5%	177	0.4%
Wildcat Region	623	2.1%	112	4.0%	4	2.0%	26	2.3%	35	5.2%	9	4.6%	2	5.1%	117	1.8%	928	2.3%
Total	4,669	16%	656	24%	42	21%	198	17%	147	22%	31	16%	5	13%	922	14%	6,670	16%
Table 8. Total number and percentage of births by population group and mother's marital status																		
Married	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	19,971	68.9%	777	27.9%	65	32.2%	973	84.8%	299	44.6%	165	85.1%	27	69.2%	2,883	45.0%	25,160	62.2%
No	9,010	31.1%	2,000	71.9%	136	67.3%	173	15.1%	371	55.4%	29	14.9%	8	20.5%	3,514	54.8%	15,241	37.7%
Unknown	19	0.1%	3	0.1%	1	0.5%	1	0.1%	0	0.0%	0	0.0%	4	10.3%	10	0.2%	38	0.1%
Total	29,000	100%	2,780	100%	202	100%	1,147	100%	670	100%	194	100%	39	100%	6,407	100%	40,439	100%
Table 9. Proportion of births with poor outcomes by population group and mother's marital status																		
Married	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	3,116	10.7%	193	6.9%	18	8.9%	165	14.4%	69	10.3%	29	14.9%	3	7.7%	437	6.8%	4,030	10.0%
No	1,550	5.3%	463	16.7%	23	11.4%	33	2.9%	78	11.6%	2	1.0%	2	5.1%	480	7.5%	2,631	6.5%
Unknown	3	0.0%	0	0.0%	1	0.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	5	0.1%	9	0.0%
Total	4,669	16%	656	24%	42	21%	198	17%	147	22%	31	16%	5	13%	922	14%	6,670	16%

Level of Indicator	White Non-Hispanic		Black Non-Hispanic		Native American/ Alaska Native Non-Hispanic		Asian/Pacific Islands Non-Hispanic		Muti Race Non-Hispanic		Other Non-Hispanic		N.S.		Hispanic		Kansas Total	
Table 10. Total number and percentage of births by population group and adequacy of prenatal care																		
Prenatal Care	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Adequate Plus	9,259	31.9%	657	23.6%	64	31.7%	322	28.1%	214	31.9%	34	17.5%	11	28.2%	1,323	20.6%	11,884	29.4%
Adequate	14,561	50.2%	1,051	37.8%	70	34.7%	569	49.6%	299	44.6%	70	36.1%	15	38.5%	2,465	38.5%	19,100	47.2%
Intermediate	1,447	5.0%	216	7.8%	22	10.9%	62	5.4%	28	4.2%	16	8.2%	4	10.3%	523	8.2%	2,318	5.7%
Inadequate	2,940	10.1%	614	22.1%	38	18.8%	155	13.5%	105	15.7%	34	17.5%	8	20.5%	1,627	25.4%	5,521	13.7%
Not Stated	793	2.7%	242	8.7%	8	4.0%	39	3.4%	24	3.6%	40	20.6%	1	2.6%	469	7.3%	1,616	4.0%
Total	29,000	100%	2,780	100%	202	100%	1,147	100%	670	100%	194	100%	39	100%	6,407	100%	40,439	100%
Table 11. Proportion of births with poor outcomes by population group and adequacy of prenatal care																		
Prenatal Care	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Adequate Plus	2,317	8.0%	240	8.6%	18	8.9%	96	8.4%	68	10.1%	7	3.6%	4	10.3%	355	5.5%	3,105	7.7%
Adequate	1,387	4.8%	165	5.9%	6	3.0%	57	5.0%	46	6.9%	11	5.7%	0	0.0%	228	3.6%	1,900	4.7%
Intermediate	181	0.6%	47	1.7%	5	2.5%	10	0.9%	4	0.6%	1	0.5%	1	2.6%	66	1.0%	315	0.8%
Inadequate	514	1.8%	139	5.0%	12	5.9%	28	2.4%	22	3.3%	8	4.1%	0	0.0%	207	3.2%	930	2.3%
Not Stated	270	0.9%	65	2.3%	1	0.5%	7	0.6%	7	1.0%	4	2.1%	0	0.0%	66	1.0%	420	1.0%
Total	4,669	16%	656	24%	42	21%	198	17%	147	22%	31	16%	5	13%	922	14%	6,670	16%
Table 12. Total number and percentage of births by population group and WIC service utilization																		
WIC Services	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	8,805	30.4%	1,690	60.8%	124	61.4%	279	24.3%	328	49.0%	74	38.1%	7	17.9%	4,426	69.1%	15,733	38.9%
No	20,126	69.4%	1,084	39.0%	76	37.6%	866	75.5%	342	51.0%	119	61.3%	27	69.2%	1,970	30.7%	24,610	60.9%
Unknown	69	0.2%	6	0.2%	2	1.0%	2	0.2%	0	0.0%	1	0.5%	5	12.8%	11	0.2%	96	0.2%
Total	29,000	100%	2,780	100%	202	100%	1,147	100%	670	100%	194	100%	39	100%	6,407	100%	40,439	100%
Table 13. Proportion of births with poor outcomes by population group and WIC service utilization																		
WIC Services	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	1,633	5.6%	394	14.2%	24	11.9%	53	4.6%	78	11.6%	12	6.2%	0	0.0%	601	9.4%	2,795	6.9%
No	3,019	10.4%	260	9.4%	17	8.4%	145	12.6%	69	10.3%	19	9.8%	4	10.3%	319	5.0%	3,852	9.5%
Unknown	17	0.1%	2	0.1%	1	0.5%	0	0.0%	0	0.0%	0	0.0%	1	2.6%	2	0.0%	23	0.1%
Total	4,669	16%	656	24%	42	21%	198	17%	147	22%	31	16%	5	13%	922	14%	6,670	16%
Table 14. Maternal weight gain during singleton pregnancy by pre-pregnancy BMI category and population group																		
Weight Gain	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Less than recommended	5,066	18.1%	584	21.8%	36	18.0%	290	26.2%	145	22.6%	56	29.8%	7	18.4%	1,459	23.1%	7,643	19.5%
Recommended	8,863	31.6%	770	28.7%	63	31.5%	436	39.4%	166	25.8%	60	31.9%	13	34.2%	1,924	30.5%	12,295	31.4%
More than recommended	13,810	49.3%	1,289	48.0%	95	47.5%	367	33.2%	328	51.0%	65	34.6%	7	18.4%	2,740	43.5%	18,701	47.7%
Not Stated	293	1.0%	41	1.5%	6	3.0%	13	1.2%	4	0.6%	7	3.7%	11	28.9%	180	2.9%	555	1.4%
Total Singleton Births	28,032	100.0%	2,684	100%	200	100%	1,106	100%	643	100%	188	100%	38	100%	6,303	100%	39,194	100%
Table 15. Total number and percentage of births by population group and weeks of gestation																		
Weeks of Gestation	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Under 20	7	0.0%	3	0.1%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	0	0.0%	2	0.0%	13	0.0%
20-22	25	0.1%	9	0.3%	0	0.0%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	5	0.1%	40	0.1%
23-27	119	0.4%	29	1.0%	1	0.5%	2	0.2%	0	0.0%	1	0.5%	0	0.0%	31	0.5%	183	0.5%
28-31	222	0.8%	32	1.2%	2	1.0%	15	1.3%	9	1.3%	1	0.5%	1	2.6%	48	0.7%	330	0.8%
32-35	1,109	3.8%	163	5.9%	8	4.0%	49	4.3%	36	5.4%	6	3.1%	0	0.0%	209	3.3%	1,580	3.9%
36	1,015	3.5%	104	3.7%	10	5.0%	40	3.5%	30	4.5%	4	2.1%	1	2.6%	184	2.9%	1,388	3.4%
37-41	26,341	90.8%	2,427	87.3%	180	89.1%	1,036	90.3%	592	88.4%	180	92.8%	33	84.6%	5,872	91.6%	36,661	90.7%
42 and over	128	0.4%	9	0.3%	1	0.5%	2	0.2%	1	0.1%	2	1.0%	0	0.0%	43	0.7%	186	0.5%
N.S.	34	0.1%	4	0.1%	0	0.0%	2	0.2%	1	0.1%	0	0.0%	4	10.3%	13	0.2%	58	0.1%
Total	29,000	100%	2,780	100%	202	100%	1,147	100%	670	100%	194	100%	39	100%	6,407	100%	40,439	100%

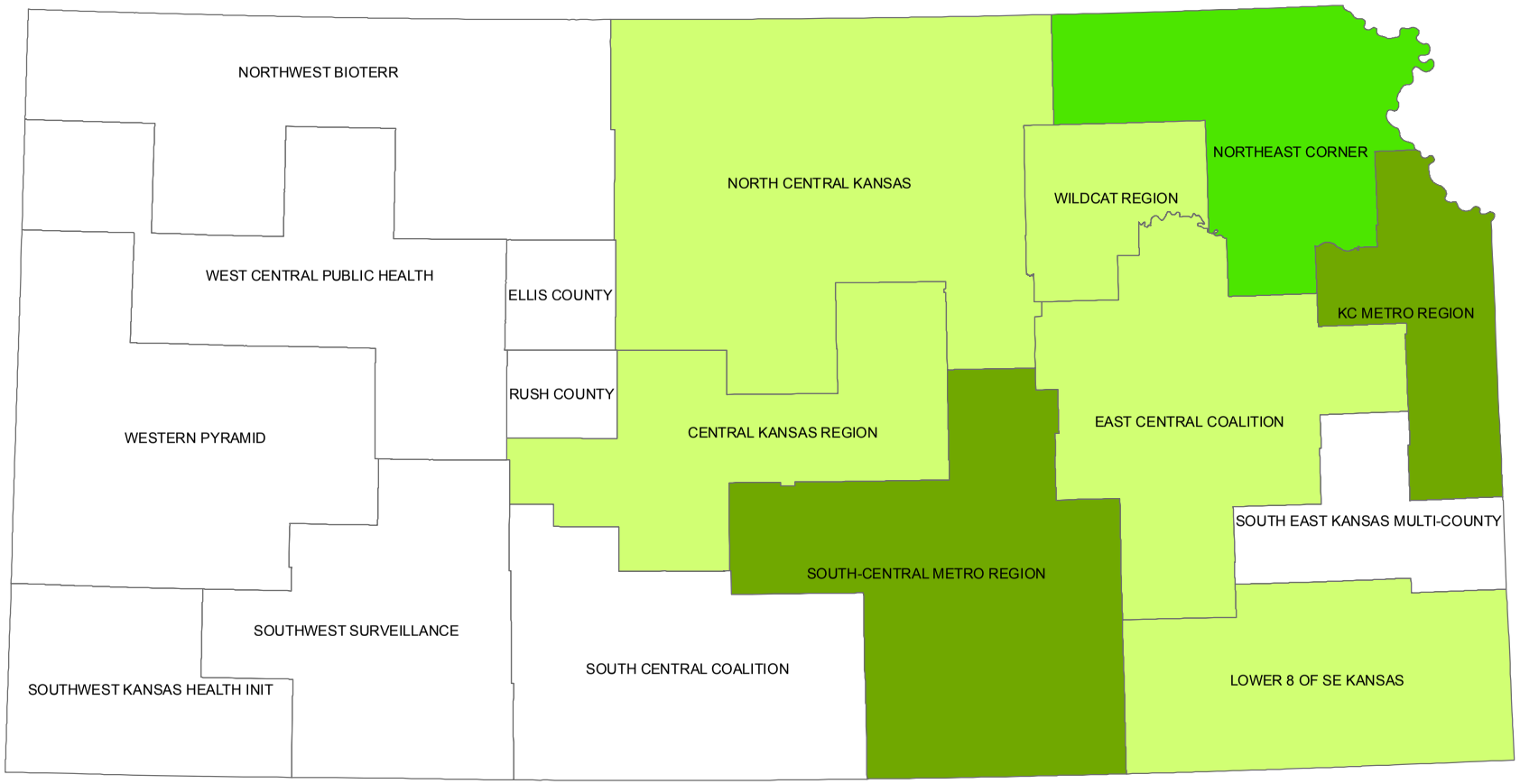
Level of Indicator	White Non-Hispanic		Black Non-Hispanic		Native American/ Alaska Native Non-Hispanic		Asian/Pacific Islands Non-Hispanic		Muti Race Non-Hispanic		Other Non-Hispanic		N.S.		Hispanic		Kansas Total	
Table 16. Total number and percentage of births by population group and age of mother																		
Age of Mother	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
10-14	10	0.0%	5	0.2%	2	1.0%	0	0.0%	3	0.4%	0	0.0%	0	0.0%	16	0.2%	36	0.1%
15-19	2,187	7.5%	431	15.5%	26	12.9%	44	3.8%	115	17.2%	12	6.2%	1	2.6%	1,027	16.0%	3,843	9.5%
20-24	7,408	25.5%	993	35.7%	78	38.6%	136	11.9%	241	36.0%	36	18.6%	4	10.3%	1,882	29.4%	10,778	26.7%
25-29	9,528	32.9%	694	25.0%	53	26.2%	339	29.6%	161	24.0%	65	33.5%	10	25.6%	1,679	26.2%	12,529	31.0%
30-34	6,727	23.2%	445	16.0%	30	14.9%	377	32.9%	103	15.4%	46	23.7%	11	28.2%	1,118	17.4%	8,857	21.9%
35 and over	3,137	10.8%	212	7.6%	13	6.4%	251	21.9%	47	7.0%	35	18.0%	10	25.6%	684	10.7%	4,389	10.9%
N.S.	3	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	7.7%	1	0.0%	7	0.0%
Total	29,000	100%	2,780	100%	202	100%	1,147	100%	670	100%	194	100%	39	100%	6,407	100%	40,439	100%
Table 17. Total number and percentage of poor birth outcomes by population group and age of mother																		
Age of Mother	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
10-14	3	0.0%	0	0.0%	1	0.5%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	3	0.0%	8	0.0%
15-19	366	1.3%	82	2.9%	6	3.0%	8	0.7%	32	4.8%	1	0.5%	0	0.0%	151	2.4%	646	1.6%
20-24	1,295	4.5%	230	8.3%	11	5.4%	29	2.5%	53	7.9%	9	4.6%	0	0.0%	297	4.6%	1,924	4.8%
25-29	1,459	5.0%	177	6.4%	11	5.4%	63	5.5%	32	4.8%	9	4.6%	1	2.6%	224	3.5%	1,976	4.9%
30-34	978	3.4%	109	3.9%	8	4.0%	60	5.2%	15	2.2%	8	4.1%	2	5.1%	126	2.0%	1,306	3.2%
35 and over	568	2.0%	58	2.1%	5	2.5%	38	3.3%	14	2.1%	4	2.1%	2	5.1%	121	1.9%	810	2.0%
Total	4,669	16.1%	656	23.6%	42	20.8%	198	17.3%	147	21.9%	31	16.0%	5	12.8%	922	14.4%	6,670	16.5%
Table 18. Total number and percentage of births by population group and prenatal risks																		
Prenatal Risks	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Pre-pregnancy Diabetes	182	0.6%	17	0.6%	4	2.0%	8	0.7%	5	0.7%	2	1.0%	0	0.0%	66	1.0%	284	0.7%
Gestational Diabetes	1,163	4.0%	80	2.9%	17	8.4%	111	9.7%	33	4.9%	6	3.1%	0	0.0%	363	5.7%	1,773	4.4%
Pre-pregnancy Hypertension	297	1.0%	48	1.7%	6	3.0%	7	0.6%	5	0.7%	0	0.0%	1	2.6%	40	0.6%	404	1.0%
Pre-eclampsia	1,191	4.1%	121	4.4%	12	5.9%	26	2.3%	31	4.6%	5	2.6%	0	0.0%	209	3.3%	1,595	3.9%
Eclampsia	37	0.1%	6	0.2%	0	0.0%	0	0.0%	1	0.1%	0	0.0%	1	2.6%	8	0.1%	53	0.1%
Previous Pre-term Birth	802	2.8%	124	4.5%	3	1.5%	19	1.7%	18	2.7%	2	1.0%	2	5.1%	158	2.5%	1,128	2.8%
Previous Poor Pregnancy Outcome	537	1.9%	70	2.5%	7	3.5%	18	1.6%	10	1.5%	2	1.0%	1	2.6%	103	1.6%	748	1.8%
Vaginal Beeding	406	1.4%	40	1.4%	3	1.5%	6	0.5%	11	1.6%	0	0.0%	0	0.0%	76	1.2%	542	1.3%
Previous C-Section	3,932	13.6%	395	14.2%	25	12.4%	144	12.6%	97	14.5%	23	11.9%	7	17.9%	838	13.1%	5,461	13.5%
Alcohol Use During Pregnancy	63	0.2%	9	0.3%	0	0.0%	0	0.0%	2	0.3%	0	0.0%	0	0.0%	10	0.2%	84	0.2%
Sexually Transmitted Disease	953	3.3%	219	7.9%	13	6.4%	28	2.4%	54	8.1%	6	3.1%	2	5.1%	234	3.7%	1,509	3.7%
Infertility Treatment	371	1.3%	7	0.3%	1	0.5%	26	2.3%	5	0.7%	5	2.6%	0	0.0%	12	0.2%	427	1.1%
Smoking During Pregnancy	4,919	17.0%	429	15.4%	59	29.2%	30	2.6%	171	25.5%	3	1.5%	2	5.1%	306	4.8%	5,919	14.6%
Total Births	29,000	51.2%	2,780	56.3%	202	74.3%	1,147	36.9%	670	66.1%	194	27.8%	39	41.0%	6,407	37.8%	40,439	49.3%
Table 19. Total number and percentage of pre-term vs. post term births by population group																		
Term of Pregnancy	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Very Preterm (Less than 32 weeks)	373	1.3%	73	2.6%	3	1.5%	18	1.6%	10	1.5%	2	1.0%	1	2.6%	86	1.3%	566	1.4%
Moderately Preterm (32-33 weeks)	281	1.0%	49	1.8%	2	1.0%	13	1.1%	17	2.5%	1	0.5%	0	0.0%	67	1.0%	430	1.1%
Late Preterm (34-36 weeks)	1,843	6.4%	218	7.8%	16	7.9%	76	6.6%	49	7.3%	9	4.6%	1	2.6%	326	5.1%	2,538	6.3%
Term (37-41 weeks)	26,460	91.2%	2,436	87.6%	181	89.6%	1,038	90.5%	593	88.5%	181	93.3%	33	84.6%	5,912	92.3%	36,834	91.1%
Post term (42-45 weeks)	9	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.5%	0	0.0%	3	0.0%	13	0.0%
Unknown	34	0.1%	4	0.1%	0	0.0%	2	0.2%	1	0.1%	0	0.0%	4	10.3%	13	0.2%	58	0.1%
Total	29,000	100%	2,780	100%	202	100%	1,147	100%	670	100%	194	100%	39	100%	6,407	100%	40,439	100%

Level of Indicator	White Non-Hispanic		Black Non-Hispanic		Native American/ Alaska Native Non-Hispanic		Asian/Pacific Islands Non-Hispanic		Muti Race Non-Hispanic		Other Non-Hispanic		N.S.		Hispanic		Kansas Total	
Table 20. Total number and percentage of births when trimester of pregnancy prenatal care began by population group																		
Prenatal Care Began	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
No Prenatal Care	171	0.6%	72	2.6%	2	1.0%	14	1.2%	4	0.6%	3	1.5%	4	10.3%	135	2.1%	405	1.0%
First Trimester	22,810	78.7%	1,610	57.9%	131	64.9%	856	74.6%	467	69.7%	115	59.3%	23	59.0%	3,540	55.3%	29,552	73.1%
Second Trimester	4,767	16.4%	748	26.9%	52	25.7%	201	17.5%	158	23.6%	31	16.0%	10	25.6%	1,908	29.8%	7,875	19.5%
Third Trimester	794	2.7%	160	5.8%	12	5.9%	47	4.1%	31	4.6%	11	5.7%	1	2.6%	474	7.4%	1,530	3.8%
Unknown	458	1.6%	190	6.8%	5	2.5%	29	2.5%	10	1.5%	34	17.5%	1	2.6%	350	5.5%	1,077	2.7%
Total	29,000	100%	2,780	100%	202	100%	1,147	100%	670	100%	194	100%	39	100%	6,407	100%	40,439	100%
Table 21. Total number and percentage of births by population group and county of residence																		
County	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
ALLEN	127	0.4%	3	0.1%	2	1.0%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	4	0.1%	137	0.3%
ANDERSON	104	0.4%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	2.6%	1	0.0%	106	0.3%
ATCHISON	199	0.7%	14	0.5%	2	1.0%	1	0.1%	4	0.6%	0	0.0%	0	0.0%	5	0.1%	225	0.6%
BARBER	70	0.2%	0	0.0%	1	0.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	0.0%	74	0.2%
BARTON	271	0.9%	4	0.1%	0	0.0%	0	0.0%	4	0.6%	0	0.0%	0	0.0%	76	1.2%	355	0.9%
BOURBON	209	0.7%	2	0.1%	0	0.0%	2	0.2%	0	0.0%	0	0.0%	0	0.0%	7	0.1%	220	0.5%
BROWN	98	0.3%	2	0.1%	15	7.4%	1	0.1%	2	0.3%	0	0.0%	0	0.0%	9	0.1%	127	0.3%
BUTLER	735	2.5%	9	0.3%	8	4.0%	10	0.9%	12	1.8%	1	0.5%	0	0.0%	30	0.5%	805	2.0%
CHASE	23	0.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	23	0.1%
CHAUTAUQUA	22	0.1%	1	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	0.0%	25	0.1%
CHEROKEE	209	0.7%	2	0.1%	3	1.5%	2	0.2%	15	2.2%	1	0.5%	2	5.1%	3	0.0%	237	0.6%
CHEYENNE	22	0.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	0.0%	25	0.1%
CLARK	24	0.1%	0	0.0%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	0	0.0%	2	0.0%	27	0.1%
CLAY	99	0.3%	0	0.0%	0	0.0%	0	0.0%	1	0.1%	1	0.5%	0	0.0%	6	0.1%	107	0.3%
CLOUD	118	0.4%	2	0.1%	0	0.0%	2	0.2%	2	0.3%	0	0.0%	0	0.0%	6	0.1%	130	0.3%
COFFEY	99	0.3%	1	0.0%	0	0.0%	0	0.0%	3	0.4%	0	0.0%	1	2.6%	2	0.0%	106	0.3%
COMANCHE	19	0.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.0%	20	0.0%
COWLEY	369	1.3%	4	0.1%	8	4.0%	3	0.3%	15	2.2%	1	0.5%	0	0.0%	87	1.4%	487	1.2%
CRAWFORD	427	1.5%	7	0.3%	0	0.0%	2	0.2%	4	0.6%	5	2.6%	4	10.3%	29	0.5%	478	1.2%
DECATUR	25	0.1%	1	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	26	0.1%
DICKINSON	261	0.9%	0	0.0%	3	1.5%	1	0.1%	5	0.7%	1	0.5%	1	2.6%	12	0.2%	284	0.7%
DONIPHAN	92	0.3%	0	0.0%	3	1.5%	0	0.0%	3	0.4%	0	0.0%	0	0.0%	1	0.0%	99	0.2%
DOUGLAS	1,010	3.5%	46	1.7%	27	13.4%	50	4.4%	29	4.3%	13	6.7%	3	7.7%	85	1.3%	1,263	3.1%
EDWARDS	29	0.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	11	0.2%	40	0.1%
ELK	32	0.1%	0	0.0%	1	0.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	0.0%	35	0.1%
ELLIS	332	1.1%	3	0.1%	2	1.0%	4	0.3%	5	0.7%	1	0.5%	0	0.0%	28	0.4%	375	0.9%
ELLSWORTH	56	0.2%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	56	0.1%
FINNEY	257	0.9%	11	0.4%	1	0.5%	26	2.3%	4	0.6%	5	2.6%	0	0.0%	461	7.2%	765	1.9%
FORD	216	0.7%	10	0.4%	1	0.5%	1	0.1%	1	0.1%	0	0.0%	0	0.0%	448	7.0%	677	1.7%
FRANKLIN	323	1.1%	0	0.0%	2	1.0%	3	0.3%	2	0.3%	0	0.0%	0	0.0%	7	0.1%	337	0.8%
GEARY	691	2.4%	151	5.4%	5	2.5%	25	2.2%	37	5.5%	4	2.1%	0	0.0%	138	2.2%	1,051	2.6%
GOVE	28	0.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.0%	29	0.1%
GRAHAM	27	0.1%	0	0.0%	0	0.0%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	3	0.0%	31	0.1%
GRANT	59	0.2%	0	0.0%	0	0.0%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	68	1.1%	128	0.3%
GRAY	82	0.3%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	12	0.2%	94	0.2%
GREELEY	9	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	0.0%	12	0.0%
GREENWOOD	53	0.2%	1	0.0%	0	0.0%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	3	0.0%	58	0.1%
HAMILTON	24	0.1%	1	0.0%	0	0.0%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	31	0.5%	57	0.1%
HARPER	67	0.2%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	5	0.1%	72	0.2%
HARVEY	370	1.3%	5	0.2%	2	1.0%	6	0.5%	11	1.6%	0	0.0%	1	2.6%	68	1.1%	463	1.1%
HASKELL	43	0.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	18	0.3%	61	0.2%
HODGEMAN	20	0.1%	0	0.0%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	0	0.0%	1	0.0%	22	0.1%

Level of Indicator	White Non-Hispanic		Black Non-Hispanic		Native American/ Alaska Native Non-Hispanic		Asian/Pacific Islands Non-Hispanic		Muti Race Non-Hispanic		Other Non-Hispanic		N.S.		Hispanic		Kansas Total	
JACKSON	136	0.5%	2	0.1%	13	6.4%	0	0.0%	4	0.6%	0	0.0%	0	0.0%	10	0.2%	165	0.4%
JEFFERSON	184	0.6%	0	0.0%	0	0.0%	1	0.1%	5	0.7%	1	0.5%	0	0.0%	8	0.1%	199	0.5%
JEWELL	22	0.1%	0	0.0%	1	0.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	0.0%	25	0.1%
JOHNSON	5,707	19.7%	378	13.6%	4	2.0%	419	36.5%	81	12.1%	65	33.5%	8	20.5%	728	11.4%	7,390	18.3%
KEARNY	42	0.1%	0	0.0%	0	0.0%	0	0.0%	2	0.3%	0	0.0%	0	0.0%	21	0.3%	65	0.2%
KINGMAN	76	0.3%	0	0.0%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	0	0.0%	2	0.0%	79	0.2%
KIOWA	25	0.1%	1	0.0%	0	0.0%	2	0.2%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	28	0.1%
LABETTE	249	0.9%	12	0.4%	2	1.0%	0	0.0%	5	0.7%	0	0.0%	0	0.0%	9	0.1%	277	0.7%
LANE	15	0.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.0%	16	0.0%
LEAVENWORTH	759	2.6%	74	2.7%	6	3.0%	27	2.4%	17	2.5%	2	1.0%	0	0.0%	61	1.0%	946	2.3%
LINCOLN	34	0.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.0%	35	0.1%
LINN	91	0.3%	0	0.0%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	92	0.2%
LOGAN	34	0.1%	0	0.0%	0	0.0%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	1	0.0%	36	0.1%
LYON	282	1.0%	13	0.5%	1	0.5%	7	0.6%	11	1.6%	1	0.5%	2	5.1%	109	1.7%	426	1.1%
MARION	117	0.4%	1	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	8	0.1%	126	0.3%
MARSHALL	105	0.4%	0	0.0%	1	0.5%	1	0.1%	1	0.1%	0	0.0%	0	0.0%	3	0.0%	111	0.3%
MCPHERSON	263	0.9%	2	0.1%	2	1.0%	4	0.3%	5	0.7%	1	0.5%	0	0.0%	23	0.4%	300	0.7%
MEADE	38	0.1%	0	0.0%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	0	0.0%	13	0.2%	52	0.1%
MIAMI	366	1.3%	3	0.1%	0	0.0%	2	0.2%	3	0.4%	0	0.0%	0	0.0%	10	0.2%	384	0.9%
MITCHELL	62	0.2%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	4	0.1%	66	0.2%
MONTGOMERY	321	1.1%	33	1.2%	9	4.5%	5	0.4%	18	2.7%	1	0.5%	1	2.6%	38	0.6%	426	1.1%
MORRIS	48	0.2%	1	0.0%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	0	0.0%	4	0.1%	54	0.1%
MORTON	28	0.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	6	0.1%	34	0.1%
NEMAHA	130	0.4%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.5%	0	0.0%	0	0.0%	131	0.3%
NEOSHO	209	0.7%	1	0.0%	1	0.5%	2	0.2%	0	0.0%	1	0.5%	0	0.0%	12	0.2%	226	0.6%
NESS	29	0.1%	0	0.0%	0	0.0%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	9	0.1%	39	0.1%
NORTON	45	0.2%	0	0.0%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	0	0.0%	1	0.0%	47	0.1%
OSAGE	172	0.6%	1	0.0%	1	0.5%	0	0.0%	3	0.4%	0	0.0%	1	2.6%	7	0.1%	185	0.5%
OSBORNE	46	0.2%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.0%	47	0.1%
OTTAWA	76	0.3%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	4	0.1%	80	0.2%
PAWNEE	67	0.2%	1	0.0%	1	0.5%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	7	0.1%	77	0.2%
PHILLIPS	52	0.2%	0	0.0%	0	0.0%	0	0.0%	1	0.1%	0	0.0%	1	2.6%	3	0.0%	57	0.1%
POTTAWATOMIE	336	1.2%	2	0.1%	0	0.0%	5	0.4%	9	1.3%	0	0.0%	2	5.1%	28	0.4%	382	0.9%
PRATT	99	0.3%	0	0.0%	2	1.0%	0	0.0%	1	0.1%	1	0.5%	0	0.0%	10	0.2%	113	0.3%
RAWLINS	21	0.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	0.0%	23	0.1%
RENO	639	2.2%	10	0.4%	2	1.0%	6	0.5%	14	2.1%	0	0.0%	0	0.0%	91	1.4%	762	1.9%
REPUBLIC	33	0.1%	0	0.0%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	0	0.0%	1	0.0%	35	0.1%
RICE	100	0.3%	2	0.1%	0	0.0%	3	0.3%	0	0.0%	0	0.0%	0	0.0%	24	0.4%	129	0.3%
RILEY	813	2.8%	86	3.1%	2	1.0%	46	4.0%	30	4.5%	13	6.7%	3	7.7%	125	2.0%	1,118	2.8%
ROOKS	63	0.2%	0	0.0%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	0	0.0%	2	0.0%	66	0.2%
RUSH	29	0.1%	0	0.0%	0	0.0%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	0	0.0%	30	0.1%
RUSSELL	86	0.3%	2	0.1%	0	0.0%	0	0.0%	2	0.3%	0	0.0%	0	0.0%	3	0.0%	93	0.2%
SALINE	602	2.1%	26	0.9%	4	2.0%	16	1.4%	22	3.3%	0	0.0%	0	0.0%	135	2.1%	805	2.0%
SCOTT	31	0.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	12	0.2%	43	0.1%
SEDGWICK	5,130	17.7%	941	33.8%	21	10.4%	314	27.4%	147	21.9%	17	8.8%	0	0.0%	1,488	23.2%	8,058	19.9%
SEWARD	107	0.4%	7	0.3%	1	0.5%	4	0.3%	4	0.6%	0	0.0%	1	2.6%	344	5.4%	468	1.2%
SHAWNEE	1,696	5.8%	212	7.6%	33	16.3%	44	3.8%	92	13.7%	5	2.6%	6	15.4%	408	6.4%	2,496	6.2%
SHERIDAN	19	0.1%	0	0.0%	1	0.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	20	0.0%
SHERMAN	62	0.2%	0	0.0%	0	0.0%	1	0.1%	1	0.1%	0	0.0%	0	0.0%	19	0.3%	83	0.2%
SMITH	30	0.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	2.6%	0	0.0%	31	0.1%
STAFFORD	34	0.1%	1	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	6	0.1%	41	0.1%
STANTON	17	0.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	13	0.2%	30	0.1%

Level of Indicator	White Non-Hispanic		Black Non-Hispanic		Native American/ Alaska Native Non-Hispanic		Asian/Pacific Islands Non-Hispanic		Muti Race Non-Hispanic		Other Non-Hispanic		N.S.		Hispanic		Kansas Total	
STEVENS	36	0.1%	0	0.0%	1	0.5%	1	0.1%	1	0.1%	1	0.5%	0	0.0%	43	0.7%	83	0.2%
SUMNER	286	1.0%	4	0.1%	1	0.5%	1	0.1%	1	0.1%	0	0.0%	0	0.0%	19	0.3%	312	0.8%
THOMAS	106	0.4%	1	0.0%	0	0.0%	2	0.2%	1	0.1%	0	0.0%	0	0.0%	5	0.1%	115	0.3%
TREGO	26	0.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.0%	27	0.1%
WABAUNSEE	69	0.2%	0	0.0%	0	0.0%	0	0.0%	2	0.3%	1	0.5%	0	0.0%	5	0.1%	77	0.2%
WALLACE	12	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	12	0.0%
WASHINGTON	56	0.2%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.0%	57	0.1%
WICHITA	26	0.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	9	0.1%	35	0.1%
WILSON	125	0.4%	1	0.0%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	0	0.0%	1	0.0%	128	0.3%
WOODSON	41	0.1%	0	0.0%	1	0.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.0%	43	0.1%
WYANDOTTE	1,090	3.8%	682	24.5%	5	2.5%	85	7.4%	19	2.8%	50	25.8%	0	0.0%	823	12.8%	2,754	6.8%
Total	**29,000**	**100%**	**2,780**	**100%**	**202**	**100%**	**1,147**	**100%**	**670**	**100%**	**194**	**100%**	**39**	**100%**	**6,407**	**100%**	**40,439**	**100%**

Number of Kansas Resident Births in 2010 to White Non-Hispanic Mothers by Health Preparedness Region

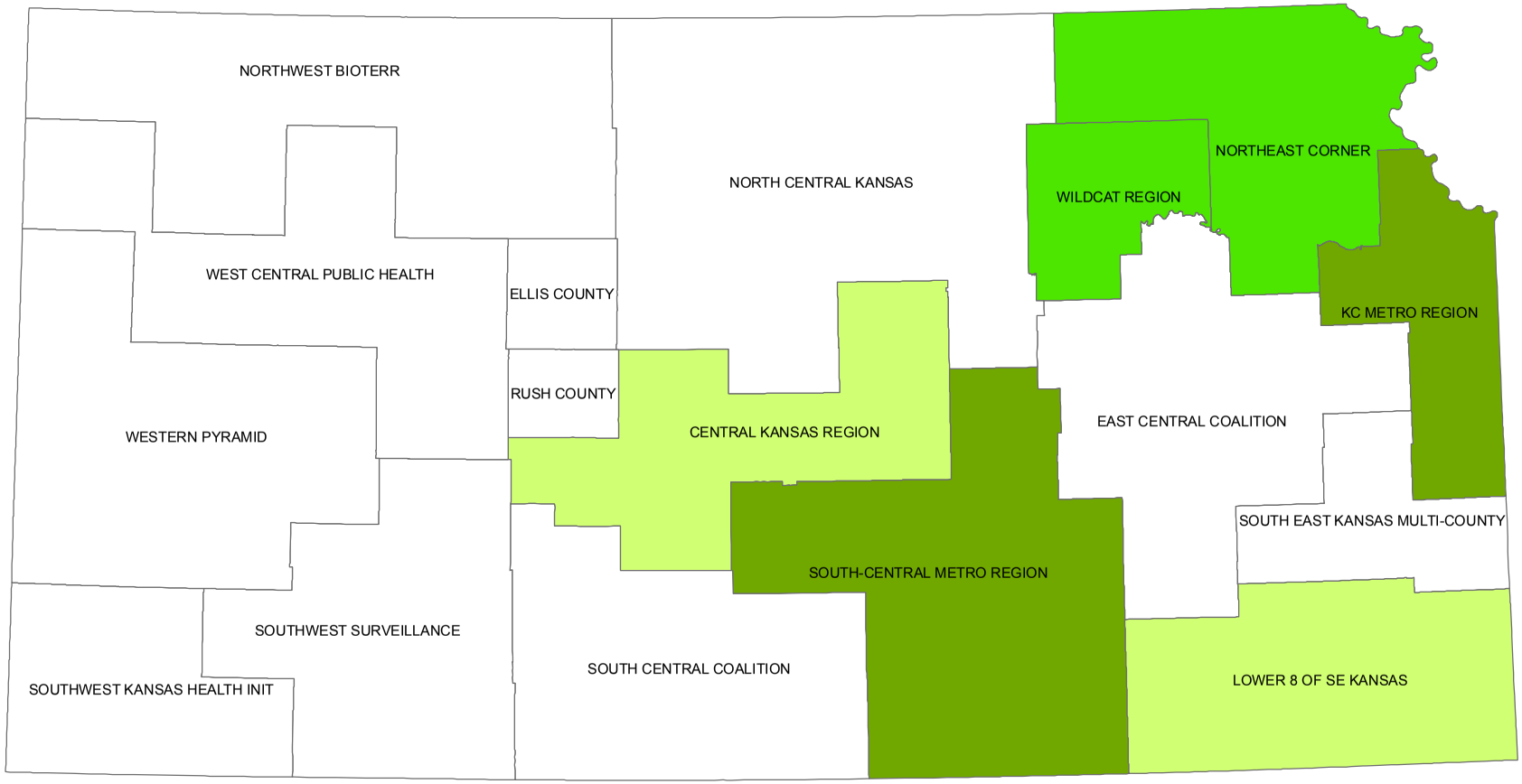


Number of Births

- 0 - 500
- 501 - 2,000
- 2,001 - 5,000
- 5,001 and Over

Prepared by:
KDHE Bureau of Epidemiology and Public Health Informatics
February 14, 2012

Number of Kansas Resident Births in 2010 to Black Non-Hispanic Mothers by Health Preparedness Region

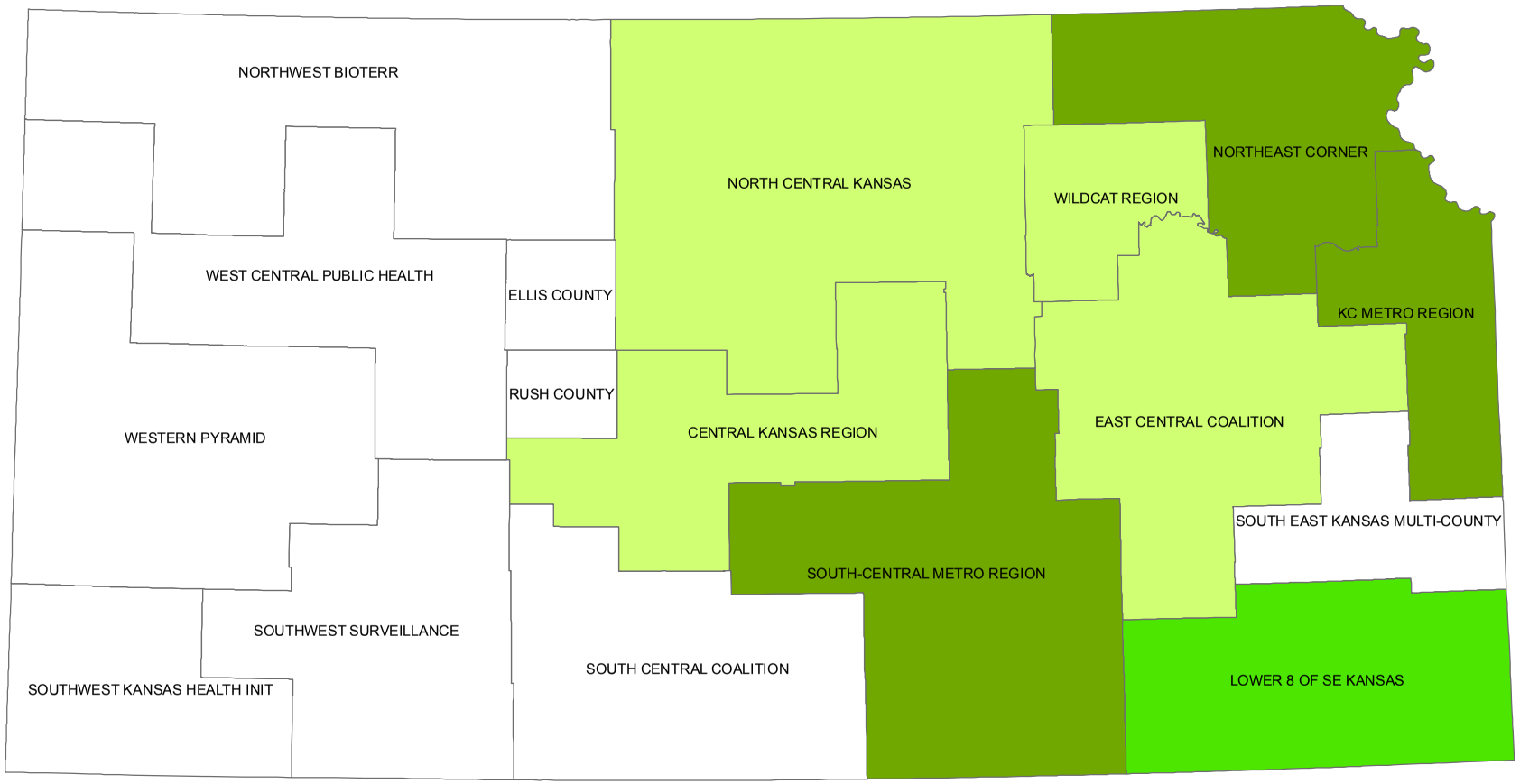


Number of Births

- 0 - 20
- 21 - 100
- 101 - 500
- 501 and Over

Prepared by:
KDHE Bureau of Epidemiology and Public Health Informatics
February 14, 2012

Number of Kansas Resident Births in 2010 to Native American Non-Hispanic Mothers by Health Preparedness Region

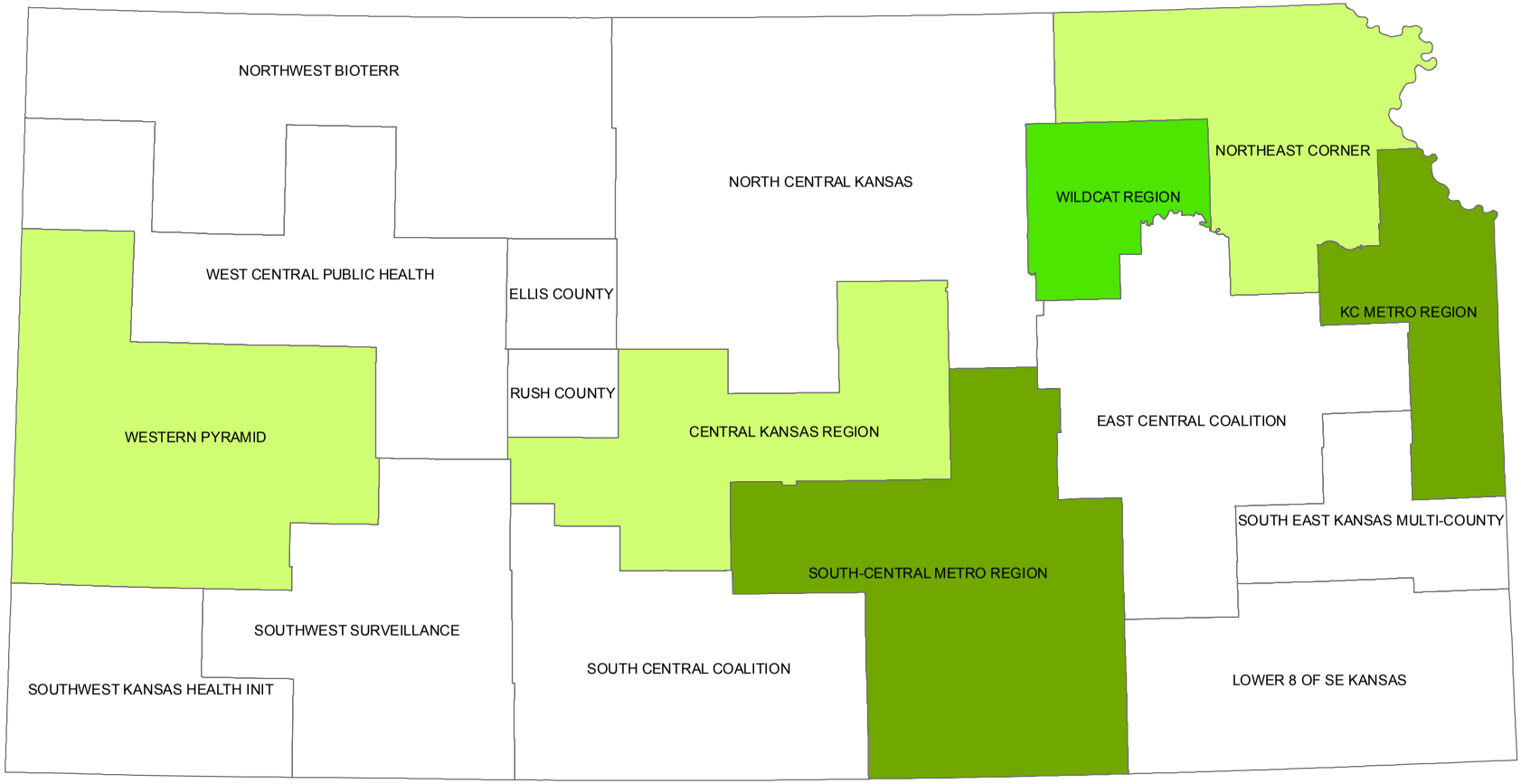


Number of Births

- 0 - 3
- 4 - 7
- 8 - 16
- 17 and Over

Prepared by:
KDHE Bureau of Epidemiology and Public Health Informatics
February 14, 2012

Number of Kansas Resident Births in 2010 to Asian/Pacific Islander Non-Hispanic Mothers by Health Preparedness Region

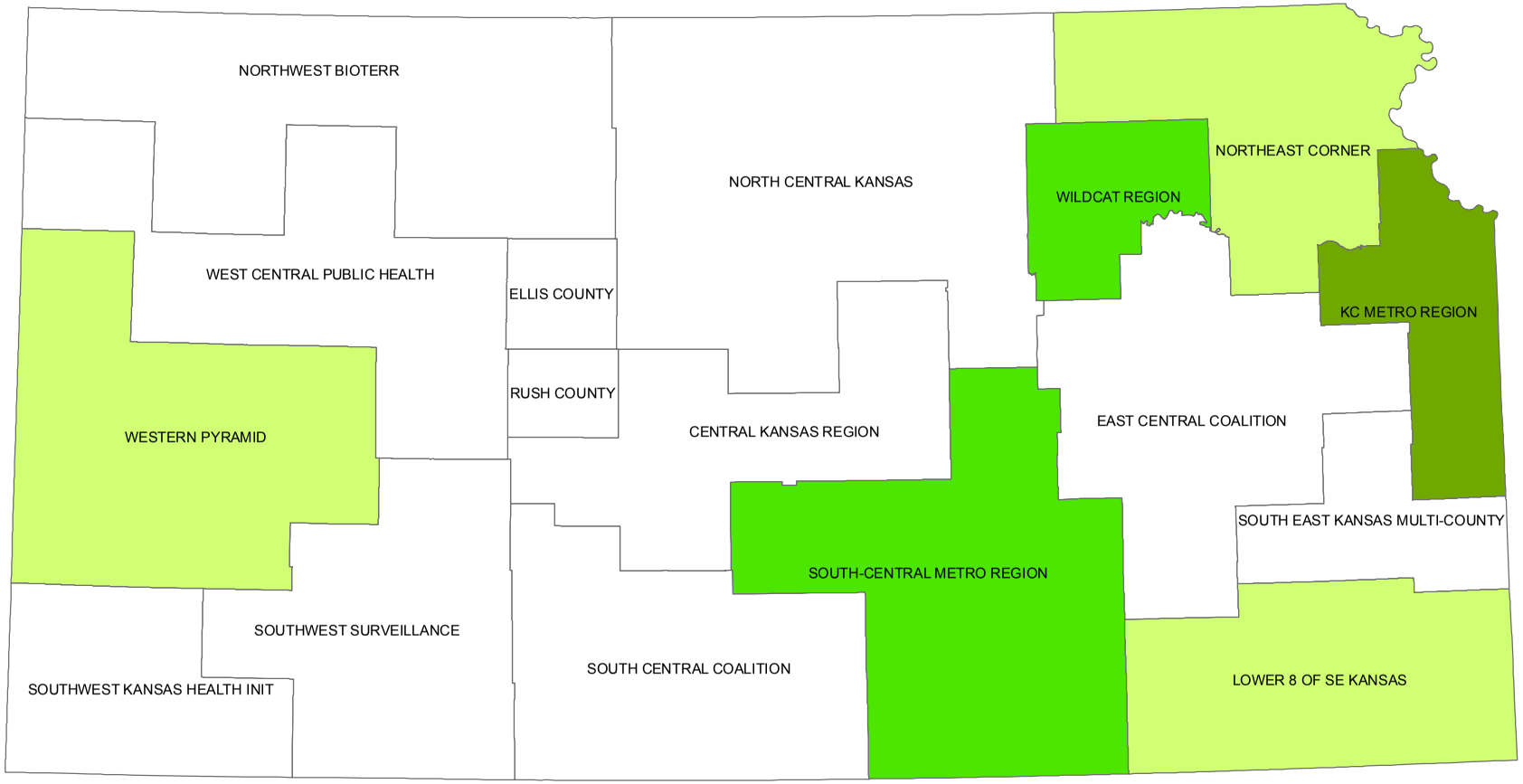


Number of Births

- 0 - 20
- 21 - 50
- 51 - 100
- 101 and Over

Prepared by:
KDHE Bureau of Epidemiology and Public Health Informatics
February 14, 2012

Number of Kansas Resident Births in 2010 to Multi-Racial Non-Hispanic Mothers by Health Preparedness Region

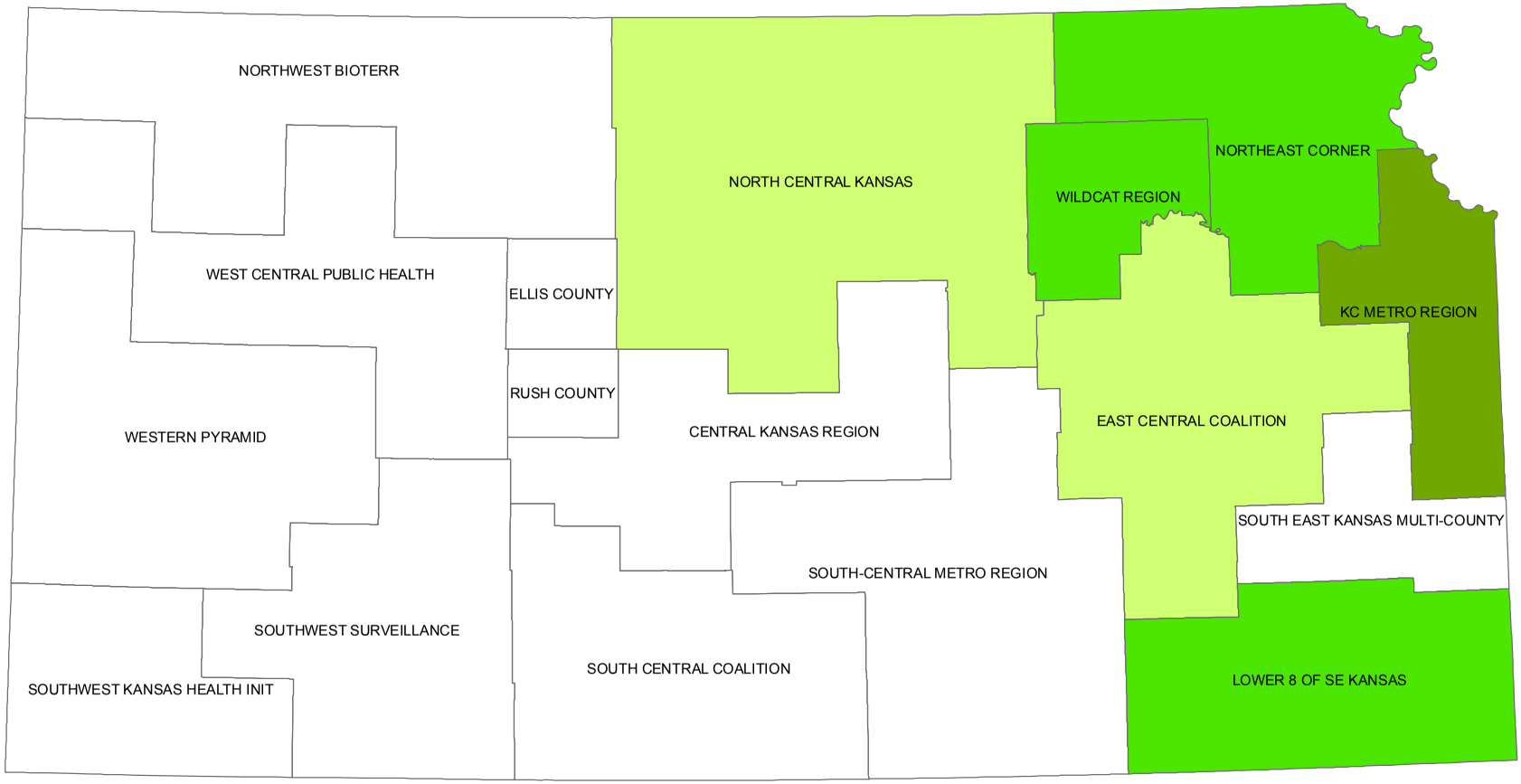


Number of Births

- 0 - 2
- 3 - 10
- 11 - 20
- 21 and Over

Prepared by:
KDHE Bureau of Epidemiology and Public Health Informatics
February 14, 2012

Number of Kansas Resident Births in 2010 to Other-Race Non-Hispanic Mothers by Health Preparedness Region



Number of Births

- 0 - 1
- 2 - 4
- 5 - 7
- 8 and Over

Prepared by:
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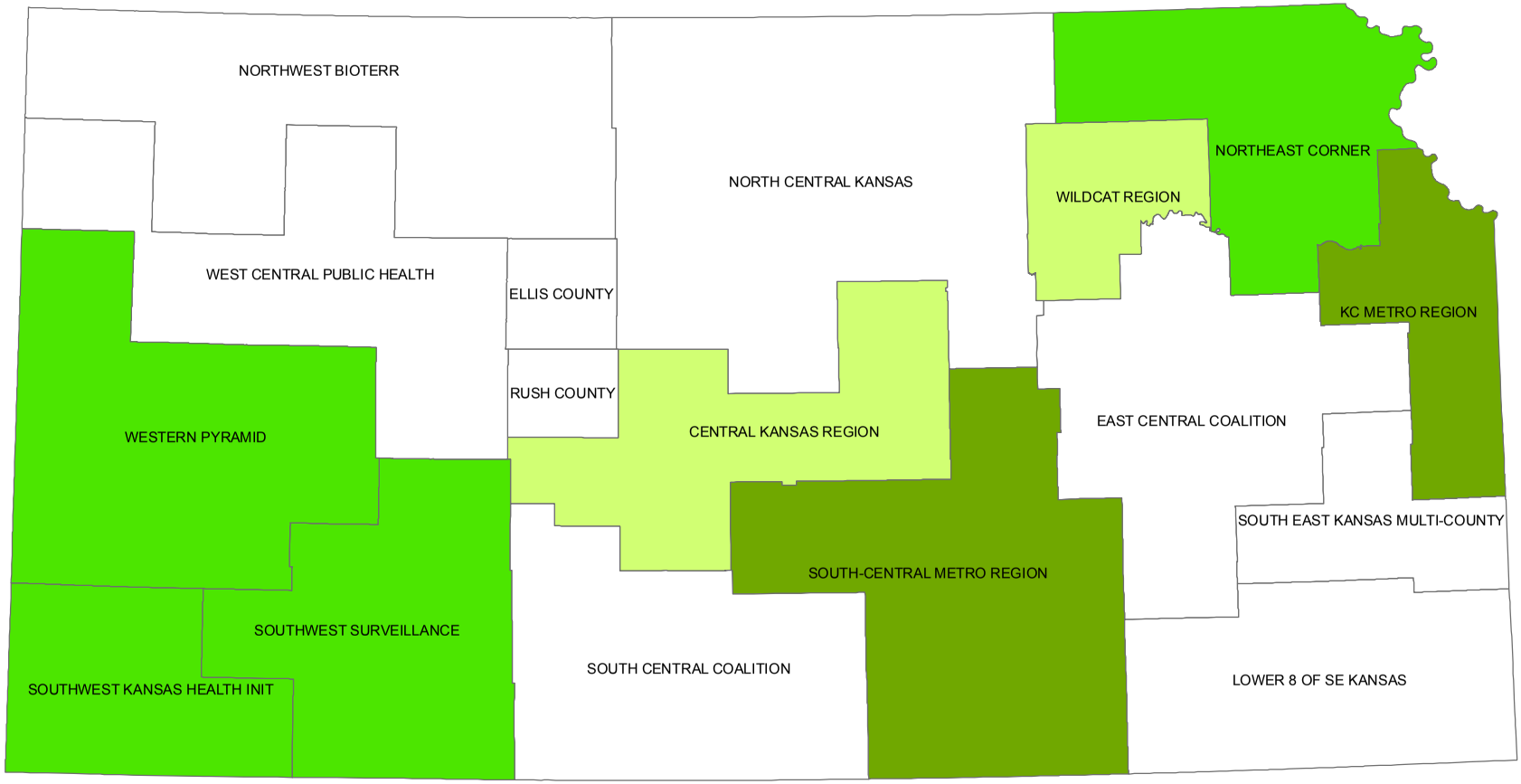
February 14, 2012

Number of Kansas Resident Births in 2010 to Hispanic Mothers by Health Preparedness Region



Number of Births

- 0 - 200
- 201 - 400
- 401 - 1,000
- 1,001 and Over

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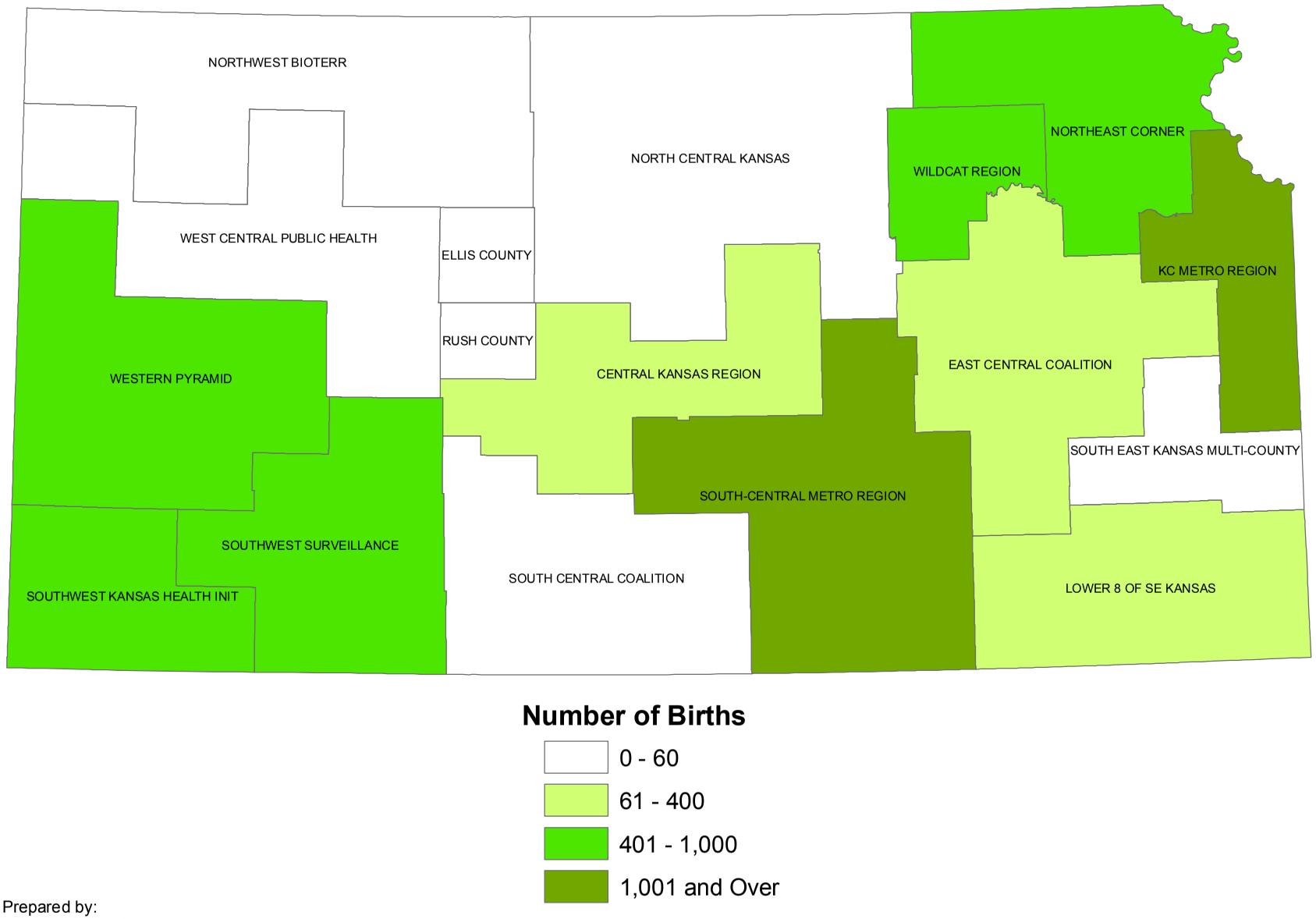
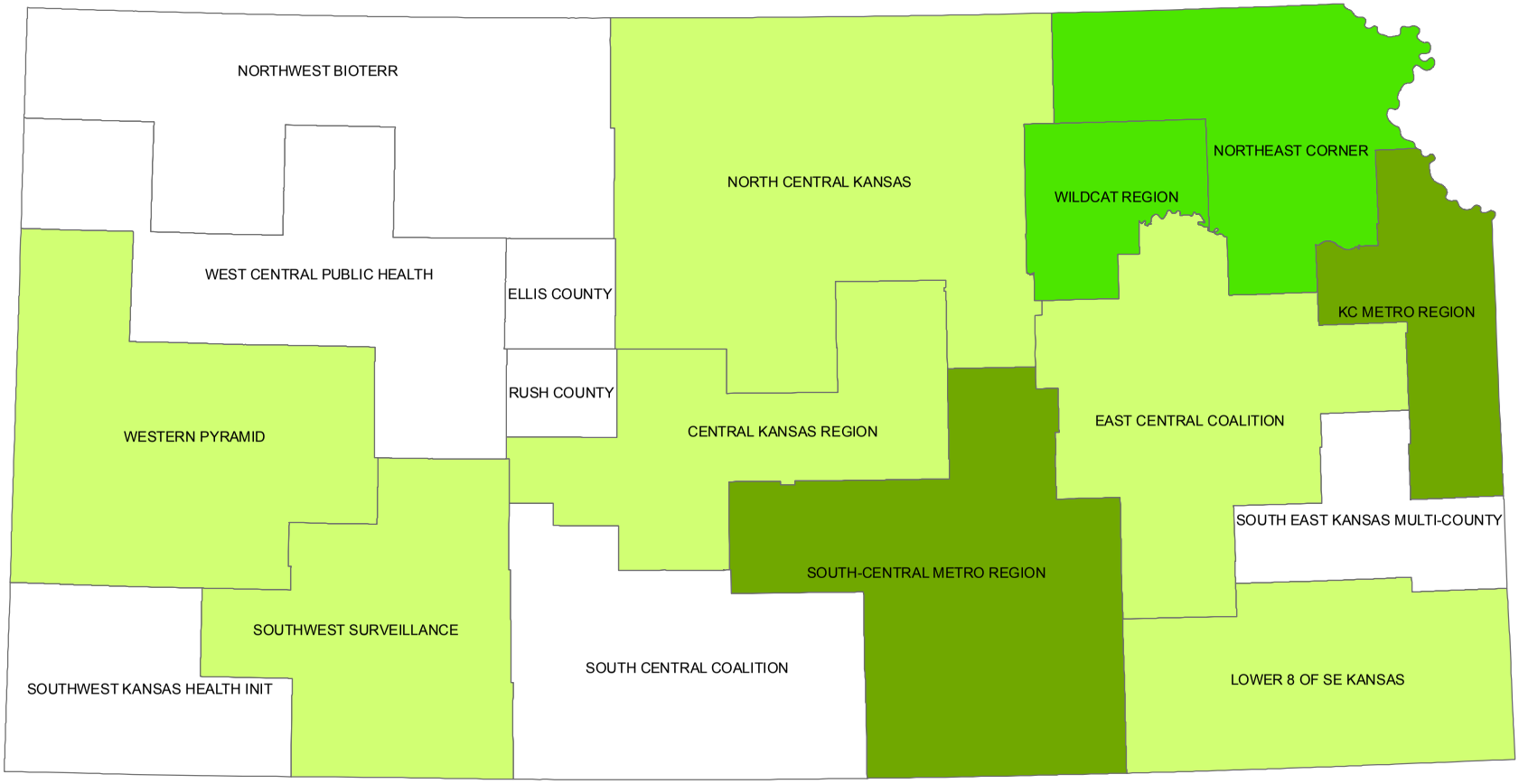
February 14, 2012

Number of Kansas Resident Births in 2010 to All Mothers Except White Non-Hispanic Mothers by Health Preparedness Region



Prepared by:
KDHE Bureau of Epidemiology and Public Health Informatics
February 14, 2012

Number of Kansas Resident Births in 2010
by Health Preparedness Region



Number of Births

- 0 - 800
- 801 - 2,000
- 2,001 - 4,000
- 4,001 and Over

Prepared by:
KDHE Bureau of Epidemiology and Public Health Informatics
February 14, 2012

Technical Notes

Registration. Reporting of Kansas vital events to the Kansas Department of Health and Environment (KDHE) is mandated by law (K.S.A. 65-102, K.S.A. 65-2422b, K.S.A. 65-445). The filing of birth and death records began in 1911. These reports are completed by the combined efforts of physicians, hospital personnel, funeral directors, attorneys, and local courts. All certificates and reports are filed with the Office of Vital Statistics by direct reporting.

Population Groups. At the most detailed level there are nine population-groups: Hispanic any race, White non-Hispanic, Black non-Hispanic, Asian non-Hispanic, Native Hawaiian and other Pacific Islander (NHOPI) non-Hispanic, American Indian/Alaska Native (AIAN) non-Hispanic, Multiple race non-Hispanic, Other race non-Hispanic, and Unknown race non-Hispanic. In the event Hispanic origin is unknown but race information is known, the individual will be reported as the specified race and non-Hispanic. BEPHI developed an aggregation grid (Table A) to use when counts for population-groups are too small to be displayed or used in a rate calculation. This report displays eight of the nine population groups, combining Asian and Pacific Islanders for reporting statistics [6].

Table A. Aggregation Grid for Population Groups

Aggregation Level	Population Groups								
None	Hispanic any Race	White Non-Hispanic	Black Non-Hispanic	Asian Non-Hispanic	NHOPI Non-Hispanic	AIAN Non-Hispanic	Multi race Non-Hispanic	Other race Non-Hispanic	Unknown Non-Hispanic
Partial	Hispanic any Race	White Non-Hispanic	Black Non-Hispanic	Asian/NHOPI Non-Hispanic		AIAN Non-Hispanic	Multi & other non-specified race(s) Non-Hispanic		N.A.
Full	Hispanic any Race	White Non-Hispanic	Black Non-Hispanic	Multi, other specified & non-specified race(s) Non-Hispanic					N.A.

Data Caveats.

- The dates used to calculate the month prenatal care began included the first day of the last menses before pregnancy and the date of the first prenatal visit.
- KDHE publishes data on Kansas resident births and deaths. If the event occurs out of state and the state is not using the latest revision of the birth certificate, missing data may result. This is an important factor in border counties.
- This report includes unknowns in the denominator for all calculations that result in percentages. Other states may choose to exclude unknowns in the denominator. The Kansas method provides a more complete representation of the data.
- The 2003 revision process resulted in recommendations that the prenatal care information be gathered from the prenatal care or medical records. In the

case of premature births, sometimes these records aren't available when the infant is delivered.

- Percentages may not add to 100 percent due to rounding.
- Residence data is information compiled according to the usual residence regardless of where the event occurred (including events occurring out-of-state).

Data Quality. The quality of the analyses in this document depends on complete and accurate reporting of vital events. Records are collected on an occurrence basis in every state or jurisdiction, regardless of the residence of the individual. Each jurisdiction provides occurrence information to NCHS. An inter-jurisdictional exchange agreement among all 56 registration states/jurisdictions and Canada ensures that vital events occurring to Kansas residents in other states or Canada are shared with KDHE.

Births are based on the events that occurred to Kansas residents during a given calendar year and reported before a given cutoff date. The Bureau of Epidemiology and Public Health Informatics (BEPHI) uses June 30 of the year after the event year as the cutoff for receipt of out-of-state occurrence Kansas resident birth, death, and stillbirth reports. The NCHS cutoff date is around September 30 of the year after the event year.

The Office of Vital Statistics works to ensure the completeness and accuracy of the certificates filed. Reports received from other states after June 30, 2011, consist of less than one percent of the total reports filed, are considered negligible, and are excluded from this report.

Some states do not process their inter-jurisdictional exchange records until after the BEPHI cutoff. These records are excluded in the event year's Annual Summary. This is a primary reason why counts and rates reported may differ from those eventually reported by NCHS. It's also a factor in why Kansas vital statistics data are not available immediately after a calendar year ends.

BEPHI is committed to reducing the number of excluded records. It monitors receipt of out-of-state occurrence records, and contacts other jurisdictions when NCHS reports out-of-state occurrence births and deaths to Kansas residents.

Criteria for the Adequacy of Prenatal Care Utilization (APNCU) INDEX. Adequacy of prenatal care utilization values are based on a method developed by Dr. Milton Kotelchuck [7]:

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

Criteria for Small for Gestational Age (SGA). Small for gestational age is when the infant's birth-weight is less than the 10th percentile, (lowest 9.9 percent of births). These infants may be normal but small or pathologically small (intrauterine growth restriction). "Many different things can lead to intrauterine growth restriction (IUGR). An unborn baby may not get enough nutrition because of:

- High altitudes
- Multiple pregnancies (twins, triplets, etc.)
- Placenta problems
- Preeclampsia or eclampsia

Congenital or chromosomal abnormalities are often associated with below-normal weight. Infections during pregnancy that affect the developing baby, such as rubella, cytomegalovirus, toxoplasmosis, and syphilis may also affect the weight of the developing baby [12]." Infants born small for gestational age but constitutionally normal may represent 40% or more of the SGA infants at term [13, 14]. However, "In early preterm gestations, the definition of SGA may be justified as a proxy for IUGR [14]." Statistics reported for SGA are based on using birth-weights from 2010 births for the state as a whole as the reference in establishing the cutoff point.

Definitions

Live Birth:	The complete expulsion or extraction of a product of human conception from its mother, irrespective of the duration of pregnancy, that, after such expulsion or extraction, shows any evidence of life such as breathing, heartbeat, pulsation of the umbilical cord, or voluntary muscle movement, whether or not the umbilical cord has been cut or the placenta attached.
Congenital Anomalies:	Defects existing at and usually before birth regardless of causation.
Low Birth Weight:	Weight of a fetus or infant at delivery which is less than 2,500 grams (less than five pounds, 8 ounces).
Prenatal Care:	Pregnancy-related health care services provided to a woman between conception and delivery.
Abnormal Conditions of the Newborn:	Need for breathing/respiratory assistance, admission to neonatal intensive care, surfactant replacement therapy, need for antibiotics for infection, presence of seizures or neurological dysfunction and birth injuries requiring medical intervention.
Trimester:	A three-month period of time. First trimester care, for example, refers to care initiated in the first three months of pregnancy.
Weeks Gestation:	The number of weeks between the first day of the last reported normal menses and the delivery of the fetus or infant.
WIC Services:	WIC is a federally funded nutrition program for women, infants, and children. WIC provides healthy foods, education and counseling, breastfeeding support, and referrals for health care at no cost.

Kansas Department of Health and Environment
Office of Vital Statistics

CERTIFICATE OF LIVE BIRTH

115-

State File Number

1. CHILD'S NAME (First, Middle, Last, Suffix)		2. DATE OF BIRTH (Month, Day, Year)	3. TIME OF BIRTH M
4. SEX	5. BIRTH WEIGHT (Grams)	6. CITY, TOWN, OR LOCATION OF BIRTH	7. COUNTY OF BIRTH
8. PLACE OF BIRTH ☐ Hospital ☐ Freestanding Birthing Center ☐ Home Birth ☐ Clinic/Doctor's Office ☐ Other (Specify) _____		9. FACILITY NAME (If not institution, give street and number)	
10. I CERTIFY THAT THE STATED INFORMATION CONCERNING THIS CHILD IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF. Certifier's Signature ➤ _____	11. DATE SIGNED (Month, Day, Year)	12. ATTENDANT'S NAME AND TITLE (Type) Name _____ ☐ M.D. ☐ D.O. ☐ C.N.M. ☐ Other Midwife ☐ Other (Specify) _____	
13. Certifier's Name and Title (Type) Name _____ ☐ M.D. ☐ D.O. ☐ Hosp Adm. ☐ C.N.M. ☐ Other Midwife ☐ Other (Specify) _____		14. ATTENDANT'S MAILING ADDRESS (Street and Number or Rural Route, City, or Town, State, Zip Code)	
15. MOTHER'S CURRENT LEGAL NAME (First, Middle, Last, Suffix)		16. MOTHER'S LAST NAME PRIOR TO FIRST MARRIAGE	
17. DATE OF BIRTH (Month, Day, Year)	18. BIRTHPLACE (State, Territory, or Foreign Country)	19. PRESENT RESIDENCE-STATE	
20. COUNTY	21. CITY, TOWN, OR LOCATION	22. STREET AND NUMBER OF PRESENT RESIDENCE	
23. ZIP CODE	24. INSIDE CITY LIMITS? ☐ YES ☐ NO	25. MOTHER'S MAILING ADDRESS (If same as residence, leave blank)	
26. FATHER'S CURRENT LEGAL NAME (First, Middle, Last, Suffix)		27. DATE OF BIRTH (Month, Day, Year)	28. BIRTHPLACE (State, Territory, or Foreign Country)
29. PARENTS REQUEST SOCIAL SECURITY NUMBER ISSUANCE? ☐ YES ☐ NO		30. IMMUNIZATION REGISTRY I wish to enroll my child in the Immunization Registry ☐ YES ☐ NO	
31. I CERTIFY THAT THE PERSONAL INFORMATION PROVIDED ON THE CERTIFICATE IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. Signature of Parent (or Other Informant) ➤ _____		32. DATE SIGNED (Month, Day, Year)	33 DATE FILED BY STATE REGISTRAR (Month, Day, Year) (Vital Statistics only)

SAMPLE

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34. IF HOME BIRTH, WAS DELIVERY PLANNED AT HOME? ☐ Yes ☐ No ☐ Unknown

35. MOTHER'S SOCIAL SECURITY NUMBER

36. FATHER'S SOCIAL SECURITY NUMBER

37a. WAS MOTHER EVER MARRIED? ☐ Yes ☐ No ☐ Unknown

37b. MOTHER MARRIED? (At birth, conception or any time between) ☐ Yes ☐ No ☐ Unknown

37c. IF NO, HAS PATERNITY ACKNOWLEDGMENT BEEN SIGNED? ☐ Yes ☐ No

37d. MOTHER REFUSES TO GIVE HUSBAND'S INFORMATION ☐ Yes ☐ No

38. WHAT IS THE PRIMARY LANGUAGE SPOKEN IN THE HOME? ☐ English ☐ Spanish ☐ Vietnamese ☐ German ☐ French ☐ Russian ☐ Ukrainian ☐ Mandarin ☐ Cantonese ☐ Sign Language ☐ Other *(Specify)* _____

39. PARENT'S HISPANIC ORIGIN (Check the box or boxes that best describes whether the parent is Spanish, Hispanic, or Latino. Check the "No" box if the parent is not Spanish, Hispanic, or Latino.)

39a. MOTHER
- ☐ No, not Spanish/ Hispanic/Latina
- ☐ Yes, Mexican/Mexican American/Chicana
- ☐ Yes, Puerto Rican
- ☐ Yes, Cuban
- ☐ Yes, Central American
- ☐ Yes, South American
- ☐ Yes, other Spanish/ Hispanic/Latina (Specify)_____
- ☐ Unknown

39b. FATHER
- ☐ No, not Spanish/ Hispanic/Latino
- ☐ Yes, Mexican/Mexican American/Chicano
- ☐ Yes, Puerto Rican
- ☐ Yes, Cuban
- ☐ Yes, Central American
- ☐ Yes, South American
- ☐ Yes, other Spanish/ Hispanic/Latino (Specify)_____
- ☐ Unknown

40. PARENT'S RACE (Check one or more races to indicate what you consider yourself to be.)

40a. MOTHER
- ☐ White
- ☐ Black or African American
- ☐ American Indian or Alaska Native (Name of the enrolled or principal tribes) _____
- ☐ Asian Indian
- ☐ Chinese
- ☐ Filipino
- ☐ Japanese
- ☐ Korean
- ☐ Vietnamese
- ☐ Other Asian (Specify) _____
- ☐ Native Hawaiian
- ☐ Guamanian or Chamorro
- ☐ Samoan
- ☐ Other Pacific Islander (Specify) _____
- ☐ Other (Specify) _____
- ☐ Unknown

40b. FATHER
- ☐ White
- ☐ Black or African American
- ☐ American Indian or Alaska Native (Name of the enrolled or principal tribes) _____
- ☐ Asian Indian
- ☐ Chinese
- ☐ Filipino
- ☐ Japanese
- ☐ Korean
- ☐ Vietnamese
- ☐ Other Asian (Specify) _____
- ☐ Native Hawaiian
- ☐ Guamanian or Chamorro
- ☐ Samoan
- ☐ Other Pacific Islander (Specify) _____
- ☐ Other (Specify) _____
- ☐ Unknown

41. ANCESTRY - What is the parents' ancestry or ethnic origin?- Italian, German, Dominican, Vietnamese, Hmong, French Canadian, etc. (Specify below)

41a. MOTHER

41b. FATHER

42. OCCUPATION AND BUSINESS/INDUSTRY

Occupation	Business/Industry (Do not give name of company.)
42a. MOTHER (Most recent)	42c. MOTHER
42b. FATHER (Usual)	42d. FATHER

43. EDUCATION (Check the box that best describes the highest degree or level of school completed at the time of delivery.)

43a. MOTHER'S EDUCATION
- ☐ 8th grade or less
- ☐ 9th - 12th grade; no diploma
- ☐ High school graduate or GED
- ☐ Some College credit, but no degree
- ☐ Associate degree (e.g., AA,AS)
- ☐ Bachelor's degree (e.g., BA, AB, BS)
- ☐ Master's degree (e.g., MA, MS, MEng, MEd, MSW, MBA)
- ☐ Doctorate (e.g., PhD, EdD) or Professional degree (e.g., MD, DDS, DVM, LLB, JD)
- ☐ Unknown

43b. FATHER'S EDUCATION
- ☐ 8th grade or less
- ☐ 9th - 12th grade; no diploma
- ☐ High school graduate or GED
- ☐ Some College credit, but no degree
- ☐ Associate degree (e.g., AA,AS)
- ☐ Bachelor's degree (e.g., BA, AB, BS)
- ☐ Master's degree (e.g., MA, MS, MEng, MEd, MSW, MBA)
- ☐ Doctorate (e.g., PhD, EdD) or Professional degree (e.g., MD, DDS, DVM, LLB, JD)
- ☐ Unknown

44. PREVIOUS LIVE BIRTHS (Do not include this child.)

45. NUMBER OF OTHER OUTCOMES (Spontaneous or induced losses or ectopic or stillbirth pregnancies)

46. PRENATAL CARE? ☐ Yes ☐ No

47. DATE OF FIRST PRENATAL CARE VISIT (Month, Day, Year)

44a. Now living Number _____ ☐ None

44b. Now dead Number _____ ☐ None

45a. Before 20 weeks Number _____ ☐ None

45b. 20 weeks & over Number _____ ☐ None

48. DATE OF LAST PRENATAL CARE VISIT (Month, Day, Year)

49. PRENATAL VISITS-Total Number (If none, enter "0")

44c. DATE OF LAST LIVE BIRTH (Month, Year)

45c. DATE OF LAST OTHER PREGNANCY OUTCOME (Month, Year)

50. DATE LAST NORMAL MENSES BEGAN (Month, Day, Year)

51. OBSTETRIC ESTIMATE OF GESTATION (Completed Weeks)

52. PLURALITY-Single, Twin, Triplet, etc. (Specify)

53. IF NOT A SINGLE BIRTH – Born First, Second, Third, etc. (Specify)

54. TOTAL LIVE BIRTHS AT THIS DELIVERY

55. IS INFANT ALIVE AT THE TIME OF THIS REPORT? ☐ Yes ☐ No ☐ Unknown

56. IS INFANT BEING BREAST-FED AT DISCHARGE? ☐ Yes ☐ No ☐ Unknown

57. CIGARETTE SMOKING BEFORE & DURING PREGNANCY: Did mother smoke 3 mos. before or during pregnancy? ☐Yes ☐ No ☐ Unknown

For each time period, enter either the number of cigarettes or the number of packs of cigarettes smoked. If none, enter "0".

Average number of cigarettes or packs of cigarettes smoked per day:

	No.	No.
Three months before pregnancy:	_____ cigarettes or	_____ packs
First three months of pregnancy:	_____ cigarettes or	_____ packs
Second three months of pregnancy:	_____ cigarettes or	_____ packs
Third Trimester of pregnancy:	_____ cigarettes or	_____ packs

58. PRINCIPAL SOURCE OF PAYMENT FOR THIS DELIVERY
- ☐ Medicaid
- ☐ Private/Employer Ins.
- ☐ Self-pay
- ☐ Indian Health Service
- ☐ CHAMPUS/TRICARE
- ☐ Other government
- ☐ Other (Specify) _____
- ☐ Unknown

59. MOTHER'S MEDICAL RECORD NO.

60. NEWBORN'S MEDICAL RECORD NO.

61. MOTHER TRANSFERRED IN FOR DELIVERY DUE TO MATERNAL, MEDICAL, OR FETAL INDICATIONS? ☐ Yes ☐ No (If yes, enter facility name)

FACILITY TRANSFERRED FROM:

62. INFANT TRANSFERRED (Within 24 hours of delivery) ☐ Yes ☐ No (If yes, enter facility name)

FACILITY TRANSFERRED TO:

SAMPLE

CHILD'S NAME _____ MOTHER'S NAME _____

PRENATAL (Birth)

63. NUTRITION OF MOTHER

1. Height _____
2. Prepregnancy Weight _____
3. Weight at delivery _____
4. Did mother get WIC food for herself?
   Yes _____ No _____
   Unknown _____

64. MEDICAL RISK FACTORS (Check all that apply.)

1. ☐ Diabetes, prepregnancy
2. ☐ Diabetes, gestational
3. Hypertension
   - ☐ Prepregnancy (Chronic)
   - ☐ Gestational (PIH, preeclampsia)
   - ☐ Eclampsia
4. ☐ Previous preterm birth
5. ☐ Other previous poor pregnancy outcome (SGA, perinatal death, etc.)
6. ☐ Vaginal bleeding during this pregnancy prior to labor
7. ☐ Pregnancy resulted from infertility treatment (If yes, check all that apply.)
   - ☐ Fertility-enhancing drugs, Artificial insemination or Intrauterine insemination
   - ☐ Assisted reproductive technology (e.g. in vitro fertilization (IVF), gamete intrafallopian transfer (GIFT))
8. ☐ Mother had a previous cesarean delivery, if yes, how many? Number: _____
9. ☐ Alcohol use No. of drinks per week: _____
10. ☐ None of the above

65. METHOD OF DELIVERY

1. Forceps attempted? Yes _____ No_____
   Successful Yes _____ No_____
2. Vacuum extraction attempted?
   Yes _____ No_____
   Successful Yes _____ No _____
3. Fetal presentation at delivery
   - ☐ Cephalic
   - ☐ Breech
   - ☐ Other
4. Final route and method of delivery (check one)
   - ☐ Vaginal/spontaneous
   - ☐ Vaginal/forceps
   - ☐ Vaginal/vacuum
   - ☐ Cesarean, if cesarean was a trial of labor attempted?
     Yes _____ No_____

LABOR-DELIVERY/NEWBORN

66. OBSTETRICAL PROCEDURES (Check all that apply.)

1. ☐ Cervical cerclage
2. ☐ Tocolysis
3. External cephalic version:
   - ☐ Successful
   - ☐ Failed
4. ☐ None of the above

67. ONSET OF LABOR (Check all that apply.)

1. ☐ Premature Rupture of the Membranes (prolonged, ≥ 12 hours)
2. ☐ Precipitous Labor (< 3 hrs)
3. ☐ Prolonged Labor (≥ 20 hrs)
4. ☐ None of the above

68. CHARACTERISTICS OF LABOR AND DELIVERY (Check all that apply.)

1. ☐ Induction of labor
2. ☐ Augmentation of labor
3. ☐ Non-vertex presentation
4. ☐ Steroids (glucocorticoids) for fetal lung maturation received by the mother prior to delivery
5. ☐ Antibiotics received by the mother during labor
6. ☐ Clinical chorioamnionitis diagnosed during labor or maternal temperature ≥ 38 C (100.4 F)
7. ☐ Moderate/heavy meconium staining of the amniotic fluid
8. ☐ Fetal intolerance of labor: (examples: in-utero resuscitative measures, further fetal assessment, or operative delivery)
9. ☐ Epidural or spinal anesthesia during labor
10. ☐ None of the above

69. MATERNAL MORBIDITY (Check all that apply.) (These are complications associated with labor and delivery.)

1. ☐ Maternal transfusion
2. ☐ Third or fourth degree perineal laceration
3. ☐ Ruptured uterus
4. ☐ Unplanned hysterectomy
5. ☐ Admission to intensive care unit
6. ☐ Unplanned operating room procedure following delivery
7. ☐ None of the above

70. INFECTIONS PRESENT AND/OR TREATED (During this pregnancy, check all that apply.)

1. ☐ Gonorrhea
2. ☐ Syphilis
3. ☐ Herpes Simplex Virus (HSV)
4. ☐ Chlamydia
5. ☐ Hepatitis B
6. ☐ Hepatitis C
7. ☐ AIDS or HIV antibody
8. ☐ None of the above

71. ABNORMAL CONDITIONS OF NEWBORN (Check all that apply)

1. ☐ Assisted ventilation required immediately following delivery
2. ☐ Assisted ventilation required for more than six hours
3. ☐ NICU admission
4. ☐ Newborn given surfactant replacement therapy
5. ☐ Antibiotics received by the newborn for suspected neonatal sepsis
6. ☐ Seizure or serious neurologic dysfunction
7. ☐ Significant birth injury (skeletal fracture(s), peripheral nerve injury, and/or soft tissue/solid organ hemorrhage which requires intervention
8. ☐ None of the above

72. VACCINES ADMINISTERED TO NEWBORN

1. ☐ Hepatitis B Date Given: _____
2. ☐ Other* Specify: _____
   Date Given: _____

73. APGAR SCORE

1 min	5 min	10 min

74. CONGENITAL ANOMALIES OF THE NEWBORN (Check all that apply.)

1. ☐ Anencephaly
2. ☐ Meningomyelocele/Spina bifida
3. ☐ Cyanotic congenital heart disease
4. ☐ Congenital diaphragmatic hernia
5. ☐ Omphalocele
6. ☐ Gastroschisis
7. ☐ Limb reduction defect (excluding congenital amputation and dwarfing syndromes)
8. ☐ Cleft Lip with or without Cleft Palate
9. ☐ Cleft Palate alone
10. ☐ Down Syndrome
    - ☐ Karyotype confirmed
    - ☐ Karyotype pending
11. ☐ Suspected chromosomal disorder
    - ☐ Karyotype confirmed
    - ☐ Karyotype pending
12. ☐ Hypospadias
13. ☐ Fetal alcohol syndrome
14. ☐ Other congenital anomalies *(Specify)* _____
15. ☐ None of the above

SAMPLE

CHILD'S NAME _____ MOTHER'S NAME _____

Test required by K.S.A. 65-153f 153G Serological Test Made: _____ 1st _____ 2nd _____ 3rd (Trimester) _____ At Delivery _____ Not Performed If no test made, state reason:	Test required by K.S.A. 65-180 Infant Neonatal Screening specimen taken: _____ Yes _____ No If no test made, state reason:	Test required by K.S.A. 65-1157A Newborn Hearing Screening Accomplished: _____ Yes _____ No

Infant's patient number:

Infant's Primary Care Physician

First	Middle	Last	Title (MD, DO, etc.)

If screening accomplished,
Date hearing screened _____/_____/_____
Month Day Year

The results of the hearing screening ✓:
Right ear: _____ Pass _____ Refer for further testing
Left ear: _____ Pass _____ Refer for further testing

Physiologic equipment used ✓: _____ OAE _____ AABR _____ ABR

If screening not accomplished, ✓ one reason:

_____ b – missed appointment
_____ c – could not test
_____ d – deceased
_____ i – Incomplete test
_____ m – Infant discharged before screening
_____ n – transferred to NICU
_____ o – other
_____ r – did not consent
_____ s – scheduled but not completed
_____ t – transferred to another hospital
_____ u – no information
_____ x – invalid results

SAMPLE