



# Community & Hospital Letter

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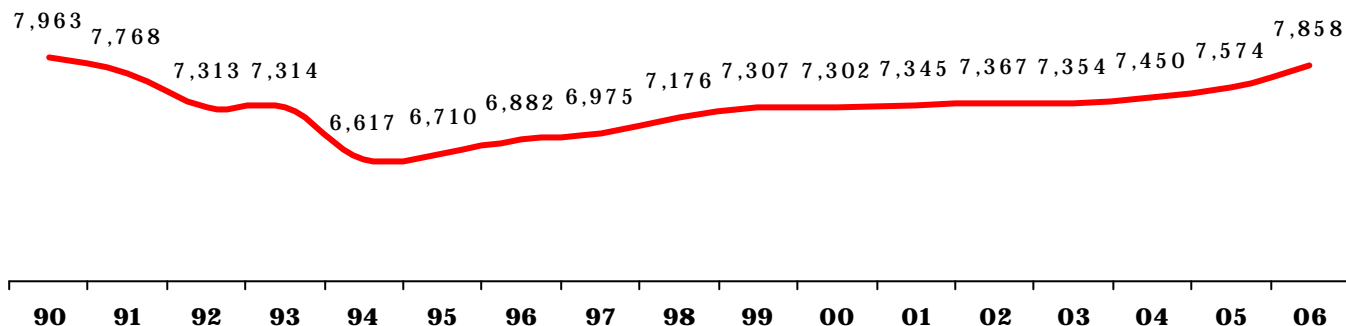
## Births, Kansas City, 2006

The number of live births to Kansas City residents has been increasing since 1994, however, the 7,858 births recorded in 2006 were still 105 births less than those in 1990 (Figure 1). The increase in births was driven largely by births to Hispanics and Asians, over two-thirds of whom were foreign born, and non-Hispanic blacks. The number of live births to non-Hispanic whites and Native Americans has been decreasing.

their 5<sup>th</sup>, 6<sup>th</sup>, or 7<sup>th</sup> live birth during the year, compared to 5.4% of Hispanics and 3.4% of non-Hispanic whites.

Between 2002 and 2006, there were 10% more Asian, 7% more non-Hispanic white and 7% more Native American boys born than girls; the sex ratios for non-Hispanic blacks and Hispanics were essentially equal.

**Figure 1 Number of live births to residents of Kansas City, Mo, 1990-2006**



Of the 7,858 live births in 2006 there were 7,587 (96.6%) singleton, 262 (3.3%) twin, and 12 (0.1%) triplet births. Multiple births were more common among non-Hispanic whites and non-Hispanic blacks than other racial/ethnic groups. As with national data, the percent of births to triplets and higher orders of birth has been declining and twins now account for most of the multiple births.

Overall, 30% of infants born in 2006 were the 3<sup>rd</sup> or higher order child to that mother. For non-Hispanic whites and Asians, the percentage was 23%, while it was 35% for non-Hispanic blacks and 37% for Hispanics. Seven percent of the non-Hispanic black women had

In 2006, pregnant Kansas City residents experienced 45 stillbirths and 2,252 abortions. For the period 2002-2006, there was an average of 44 stillbirths each year. Male fetuses represented 57% of the stillbirths. The rates of stillbirths per 1,000 live births were 10.1 for Asians, 9.2 for non-Hispanic blacks, 3.8 for non-Hispanic whites, and 3.2 for Hispanics.

Twenty-two percent of recorded pregnancies were terminated via abortion, for an abortion rate (number of abortions per 1,000 women 15-44 y of age) of 21.9 and an abortion ratio (number of abortions per 1,000 live births) of 286.6.

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The preterm birth rate in Kansas City has been stable over the last 5 years; it was 10.1% in 2006 while the low birthweight rate was 8.7%.

Low birthweight does not take into account the gestational age of the infant. Another measure of intrauterine growth outcome is small-for-gestational-age (SGA) which is defined as an infant whose birthweight is in the lowest 10<sup>th</sup> percentile for the corresponding gestational age. The risk for SGA is highest during first pregnancies and among younger mothers and non-Hispanic blacks. In 2006, 11.9% of infants born in Kansas City were classified as SGA. Non-Hispanic blacks had the highest risk for SGA (17.4%) and that risk was 2.1 times higher than that for non-Hispanic whites.

At the opposite end of the intrauterine growth spectrum are infants classified as large-for-gestational-age (LGA). These are infants whose birthweight exceeds the 90<sup>th</sup> percentile for gestational age. In Kansas City, 4.7% of infants born in 2006 were classified as LGA. Maternal diabetes is the most common risk factor for LGA.

The age of the birth mother can influence the health outcome of the baby, particularly at the lower and upper ends of the reproductive life of a woman. Table 1 shows the age distribution of birth mothers in Kansas City. The average age of a birth mother at first birth was 24.3 years. Of public health concern are births to teenagers and

women  $\geq 40$  y of age.

There are three different indicators for births to teenage mothers: births to girls 10-14 y of age; births to women 15-19 y old; and, the teenage pregnancy rate. The first two indicators are based on the mother's age and ignore marital status. The teenage pregnancy rate includes all live births, induced abortions and fetal deaths to women 15-19 y old.

Nationally, births to girls who are 10-14 years old have been declining. In 2006, the rate was 0.6 per 1,000 girls 10-14 years old, while in Kansas City the rate was 0.9. There were 14 births to girls 10-14 years old and there were 9 abortions.

In Kansas City, birth rates to women 15-19 y old rose 10% in 2006 following years of declining rates. This upward turn was consistent with what was reported nationally that year. The rate for teens 15-17 years old rose 5.8% while that for 18-19 year olds rose 16.8%.

In 2006, women 15-19 years old experienced 6 fetal deaths (3 each to 15-17 year olds and 18-19 year olds), 311 induced abortions (106 to 15-17 years old, 205 to 18-19 years old), and 974 live births (343 to 15-17 years old, 631 to 18-19 years old). The teen pregnancy rate for 2006 was 89.2 per 1,000 women 15-19 years old (52.2 for 15-17 year olds, 271.3 for 18-19 year olds). Encouragingly, the per-

**Table 1 Births by age group, Kansas City, Mo, residents, 2006**

Ages	Total births	White, non-Hispanic	Black, non-Hispanic	Hispanic	Asian	Native American	Other/Not listed
10-14 y	14	0	12	2	0	0	0
15-17 y	343	53	198	85	4	0	3
18-19 y	631	129	356	135	4	1	6
20-24 y	2,186	696	1,028	366	36	12	48
25-29 y	2,297	1,082	720	349	92	13	41
30-34 y	1,588	886	358	231	77	7	29
35-39 y	654	369	155	74	32	8	16
40-44 y	130	76	32	15	6	0	1
45-49 y	10	5	2	0	1	1	1
$\geq 50$ y	1	0	1	0	0	0	0
<b>Total</b>	<b>7,854</b>	<b>3,296</b>	<b>2,862</b>	<b>1,257</b>	<b>252</b>	<b>42</b>	<b>145</b>

cent of repeat pregnancies among women 15-19 y of age decreased 9% between 2002 and 2006. Asians and non-Hispanic blacks had the highest rates for repeat pregnancies while Native Americans had the lowest

Women  $\geq 40$  years old account for 1.8% over of all births in Kansas City and, during 2006, 92% of these births occurred among women 40 to 44 years old. The rate of births per 1,000 women  $\geq 40$  years old was highest among Hispanics and Asians, being more than double that of women of other races or ethnicities.

The proportion of births to unmarried women in the US continues to increase and reached a record high of 38.5% in 2006 while in Kansas City it increased to 51.7%. Between 2002 and 2006, 76.4% of births to Kansas City women  $< 25$  y old were to women who were not married, compared to 31% for women  $\geq 25$  y old. The overall proportions of women who were not married were 27.4% for non-Hispanic whites, 77.0% for non-Hispanic blacks, 55.1% for Hispanics, 26.9% for Asians, 51.3% for Native Americans, and 44.1% for women of other race/ethnicity or for whom no race/ethnicity was listed.

Both short ( $< 18$  months) and long ( $> 59$  months) intervals between pregnancies are significantly associated with increased risk of preterm birth, low birthweight, and SGA infants. Thus, spacing pregnancies appropriately could help prevent such adverse outcomes. Short intervals between pregnancies are for the most part unintended. Long intervals are most likely not chosen but may result from the end of a partnership, infertility, reproductive losses in the interval, health problems in the mother or infant, or economic issues.

In Kansas City, the percentage of women who have had a baby and then, in  $< 18$  months, delivered another baby has been increasing in recent years, while the percentage of women with birth intervals  $> 59$  months remained relatively stable. In 2006, there were 578 births that occurred  $< 18$  months from a previous birth and 1,004 that occurred  $> 59$  months from a previous birth.

The *Healthy People 2010* objective is that 90% of women receive an adequate number of prenatal visits and that 90% of pregnant women begin prenatal care early (first trimester). In 2006, only 71.2% of pregnant women in

Kansas City received an adequate or more than adequate number of prenatal visits, but 85.0% started prenatal care in their first trimester. The percentage of women receiving an adequate or more than adequate number of prenatal visits has remained relatively stable over the past 5 years, as has the percent of those receiving an inadequate or intermediate number of prenatal visits.

Babies are born via different methods of delivery. Of concern is the rising rate in cesarean sections (C-sections); nationally, it was 30.3% in 2005 (the highest rate on record). Of particular concern is primary elective C-sections. While Kansas City's 2006 overall rate for C-sections was 25.9%, the primary elective C-section rate was 11.3% overall and 17.4% among first time mothers. Non-Hispanic whites had the highest primary elective C-section rate. And, first time births to women  $\geq 35$  y of age were more than twice as likely to be delivered via C-section.

In 2006, 12.6% of Kansas City mothers who gave birth smoked during their pregnancies. Although pregnancy-smoking declined significantly from the levels of the late 1990s, the pregnancy-smoking rate has been relatively constant over the past 5 years, averaging 12.6%. Pregnancy-smoking rates vary by race/ethnicity and also the number of previous live births. In 2006, in Kansas City, the pregnancy-smoking rate was 8.5% among first time mothers, 11.5% among those with one previous live birth, and 19.1% among those with two or more previous live births.

The Kansas City Health Department is posting drafts of the various sections of its **Community Health Assessment 2008** report on its website at [www.kcmo.org/health](http://www.kcmo.org/health) under Medical Publications. These drafts are for public review and comment. New sections will be added to the website as they are written. Any draft that was published to the website and then subsequently revised will carry a designation that it was revised and the date of that revision. Information on how to submit comments and suggestions is provided on the website. The birth information presented in this issue was abstracted from one of the draft sections of the report.

# Potpourri

**DEATHS FROM CANCER** of the meninges, brain or other parts of the central nervous system averaged about 17 per year among Kansas City residents between 1997 and 2006. The 171 recorded deaths accounted for just 1.9% of all cancer deaths among city residents over the 10 year period. The age-adjusted death rate of 4.0 per 100,000 population was 18% lower than the rate for such cancer deaths across Missouri. Males had a higher age-adjusted death rate (4.6) than females (3.5). Eighty-two percent of the deaths occurred in persons  $\geq 45$  years of age. The mortality rate per 100,000 population for non-Hispanic white males was twice as high as that for non-Hispanic black or Hispanic males, while non-Hispanic white women had a rate 2.5 times higher than that for non-Hispanic black women.

**THE UNITED STATES** is unlikely to meet its goal for eliminating tuberculosis (TB) by 2010, primarily because of high rates of latent (dormant) TB in certain population subgroups. According to the Centers for Disease Control and Prevention, the latent TB infection rate was 4.2%, excluding any infections among the homeless and incarcerated populations (*Am J Respir Crit Care Med* 2008;177:348-355). The goal for TB elimination is a disease incidence of less than 1 per million US population by 2010, which requires that the latent TB infection prevalence be  $< 1\%$  and decreasing. A total of 63% of the latent TB infection was among the foreign born. Among the US born, it was associated with non-Hispanic African-American race/ethnicity, Mexican American ethnicity, and poverty.

**HUMAN LICE ARE** strictly restricted to humans and differ from the lice of apes. The current classification scheme for human lice recognizes head, body, and pubic lice (*Pediculus humanus capitis*, *P humanus humanus*, and *P pubis*, respectively). The head and body lice fall

into three distinct lineages, A, B, and C. Type A includes both head and body lice, while types B and C include only head lice. Type A lice are found worldwide, B are common in North American and Europe, while C are rare.

There was a theory that type B lice evolved in the Americas and that Europeans brought type A lice to this hemisphere and took type B back home. However, recent studies conducted on 900 head lice recovered from the thickly braided hair of two mummies in southern Peru (which date to around 1,000 AD) have shown them to be type A (*J Infect Dis* 2008;197:535-543). These findings mean type A lice were distributed worldwide with human colonization. However, it does not answer the question of whether type B lice evolved in the Americas and later infested Europeans.

**DO INSECTS PLAY A ROLE** in transmitting avian influenza H5N1 virus? This question cannot be answered either way at present. The virus has been found in 2 species of blow flies in Japan (*Am J Trop Med Hyg* 2006;75:327-332) and in mosquitoes in Thailand (*Vector Borne Zoonotic Dis* 2008;8:105-110). In all instances, the virus could be replicated in either cell culture or embryonated chicken eggs. It is possible that these insects may play a biological or mechanical role in transmission of H5N1 virus. It is also possible that the recovery of the virus simply reflects viral uptake during feeding, with the insect being a dead end host.

**A RECENT STUDY** found that teenage fathers carry an increased risk of adverse birth outcomes that is independent of maternal confounders, whereas advanced paternal age ( $\geq 40$  y) does not (*Hum Reprod* 2008;Feb 6 [Epub ahead of print]).

**Healthy People, Healthy Communities**

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