



Kansas City, Missouri, Health Department,
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Déjà vu!

A multistate outbreak of *Salmonella agona* infections has been traced to puffed rice and puffed wheat cereals manufactured by Malt-O-Meal. As of this writing, 23 people in 14 states have become ill. A national callback of possibly contaminated product was instituted by the company. These cereals were sold under various brand names. According to Marler Blog (www.marlerblog.com) the current outbreak is being caused by a *S agona* strain with the same pulse field gel electrophoresis (PFGE) pattern as the 1998 strain found in Malt-O-Meal's toasted oat cereals.

In April-May 1998, a cereal associated outbreak of *S agona* affected >200 people across multiple states in-

cluding Missouri and Kansas; one case was a Kansas City resident. That outbreak was the first time that any *Salmonella* strain had been associated with an outbreak having dry cereal as the implicated food item.

S agona is an uncommon serotype of *Salmonella*, accounting for approximately 1.5% of human isolates reported to the Centers for Disease Control and Prevention (*MMWR Morb Mort Wkly Rep* 1998;47:462-464). *Salmonella* spp are relatively resistant to desiccation and can survive for long periods of time in dry environments such as cereal. The 1998 outbreak demonstrated that the risk of infection was dose dependent, ie, the more a person ate the higher their risk for infection.

Heart Disease & Stroke in Kansas City, Mo

In 2006, heart disease was the 2nd leading cause of death behind cancer in Kansas City and stroke was the 5th leading cause of death behind chronic lower respiratory diseases and infectious diseases. A total of 810 Kansas Citians died as the result of heart disease, while another 196 died from stroke.

Based on age-adjusted death rates, men were 68% more likely to die from heart disease and 11% more likely to die from stroke. Among all males who died that year, irrespective of cause, 21.3% died from heart disease and 4.1% from stroke, while among females, 21.5% died from heart disease and 6.3% from stroke.

Non-Hispanic blacks were 1.5 times more likely to die from heart disease and 2.3 times more likely to die from stroke than non-Hispanic whites. Non-Hispanic black females were 1.6 times more likely to die from heart dis-

ease and 3.0 times more likely to die from stroke than their non-Hispanic white counterparts. Likewise, non-Hispanic black men were 1.4 times more likely to die from either heart disease or stroke than non-Hispanic white men.

During 2002-2006, heart disease accounted for 24.3% of all deaths among non-Hispanic white women, 23.4% among non-Hispanic black women, 24.1% among non-Hispanic white males, and 22.6% among non-Hispanic black males. Stroke accounted for 7.4% of deaths among non-Hispanic black women, 6.8% among non-Hispanic white women, 4.9% for non-Hispanic black men, and 4.5% for non-Hispanic white men.

While the average age of death in 2006 for Kansas Citians was 74.7 years for heart disease and 75.7 years for stroke, a significant proportion of the deaths were premature

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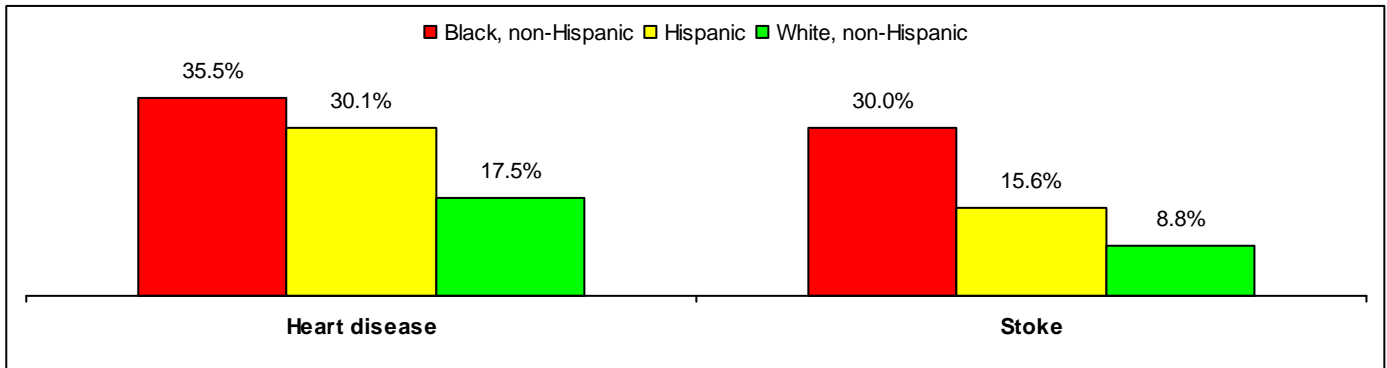
(prior to age 65 y). The percentages of men who died prematurely from heart disease (33.9%) and stroke (31.6%) were higher than among women (14.6% for heart disease, 16.2% for stroke). Statewide, in 2006, premature deaths from heart disease and stroke occurred at lower rates – 27.4% for heart disease and 19.0% for stroke among males and 12.2% for heart disease and 9.8% for stroke among females. Figure 1 summarizes premature deaths from heart disease and stroke among Kansas Citians for the years 2002 through 2006.

Age-adjusted heart disease death rates, overall and for coronary heart disease, declined from 1997-2001 to

coronary heart disease decreased 32.3% between 2000 and 2006 and has been below the *Healthy People 2010* national objective of 166 deaths per 100,000 population since 2002. A little over two-thirds of all deaths from heart disease are due to coronary disease.

Nearly 80% of deaths from diseases of the heart occur among residents of the Jackson County portion of the City, with 15% among residents in the Clay County portion, and 5% among those in the Platte County portion. The highest death rates for both heart disease and stroke per 10,000 residents were in those zip codes with median family incomes between \$60,000 and \$79,999 (Figure 2).

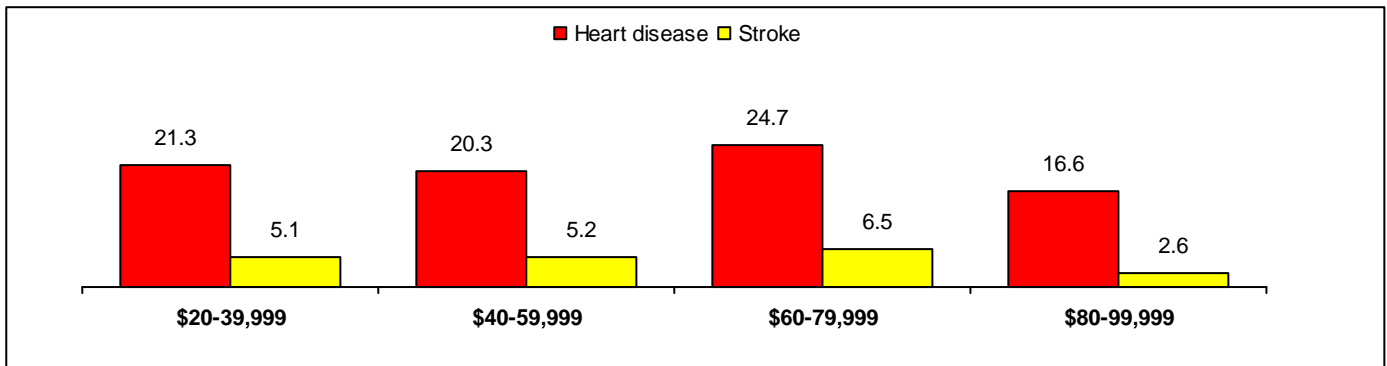
Figure 1 Percent of premature deaths among Kansas City, Mo, residents by race/ethnicity for heart disease and stroke, 2002-2006



2002-2006. The declines were the largest for non-Hispanic whites (25.6% overall, 31.1% coronary) and lowest for Hispanics (3.9% overall, 17.9% coronary). Non-Hispanic black rates were intermediate (13.1% overall, 19.1% coronary). The overall age-adjusted death rate from

It is estimated that 147,000 Missourians ≥18 y of age have a history of stroke. Among Kansas City residents, the age-adjusted death rates for stroke fluctuated annually between 2000 and 2006, although there has been a statistically significant decline that is approaching the

Figure 2 Annualized heart disease and stroke death rates per 10,000 population by zip code median family income levels, Kansas City, Mo, 2002-2006

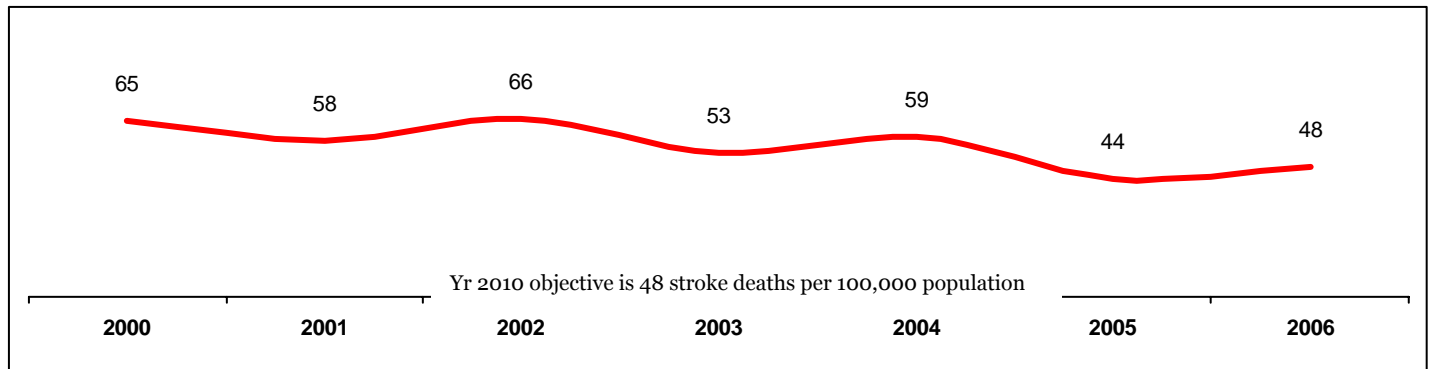


Healthy People 2010 national objective (Figure 3).

For the periods 1997-2001 and 2002-2006, both non-Hispanic whites and non-Hispanic blacks experienced a

decrease in their age-adjusted stroke death rates of 21.4% and 4.9%, respectively, while Hispanics had a 1.8% increase.

Figure 3 Age-adjusted stroke death rate per 100,000 population, Kansas City, Mo



Teenage Pregnancy Rate

Teenage pregnancy rates (live births, abortions, and fetal deaths) per 1,000 women 15-19 years of age have declined significantly in Clay, Jackson, and Platte counties over the past 10 years. The rates for white and black teenagers are shown in Figure 1 below. The declines are associated with the decline in pregnancies among 15-17 year olds and not the older teens.

The percentages of teenagers who had a prior pregnancy were 2.2% for 10-14 y olds, 11.0% for 15-17 y olds, and 34.5% for 18-19 y olds.

Expanding the geographic area to include Johnson and Wyandotte counties, KS, over the 10 year period 1997-2006, there were 396 live births to girls 10-14 years of age, 8,028 to those 15-17 years old and 16,478 to women 18-19 years old. Select pregnancy-related measures for those pregnancies are shown in Table 1 (next page). When cesarean (C-section) rates are low the percent of preterm births and low birthweight births also are low. This was particularly noticeable for 18-19 y old black mothers compared to same age white mothers.

Figure 1 Teen pregnancy rates per 1,000 population for white and black teenagers 15-19 years old living in Clay, Jackson, and Platte counties, Mo

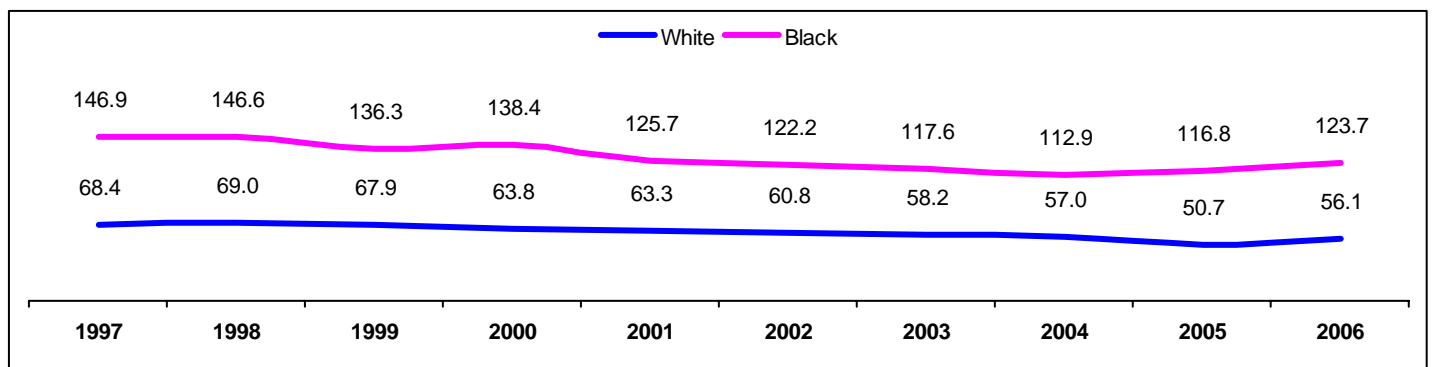


Table 1. Select pregnancy measures for teenagers in 5 county metropolitan Kansas City area, 1997-2006

	No prenatal care	Prenatal care in first trimester	C-section delivery	Preterm birth	Low birthweight
White					
10-14 y	0.7%	52.7%	14.2%	13.5%	63.5%
15-17 y	1.4%	69.4%	13.4%	11.3%	67.7%
18-19	1.2%	74.8%	15.2%	10.2%	66.7%
Black					
10-14 y	2.7%	42.9%	16.1%	22.8%	79.5
15-17 y	1.8%	61.1%	14.6%	16.8%	78.3
18-19 y	1.1%	35.6%	7.7%	8.0%	39.4

Potpourri

DURING 2007, 77 persons in Missouri and 40 in Kansas developed either meningitis/encephalitis or fever as the result of infection with the mosquito-transmitted West Nile virus; 5 of the Missouri cases and 2 of those in Kansas residents ended fatally. Yet, these were not the only individuals who contracted a mosquito-transmitted virus that year. Five Missourians were infected with dengue virus (travel-associated infections) and one with St Louis encephalitis virus (SLE). The Missouri Department of Health and Senior Services also recorded 4 isolates of SLE from mosquitoes of the *Culex pipiens* complex.

A PREGNANT WOMAN who wears a seat belt greatly reduces the risk that her fetus will die or be seriously hurt in a motor vehicle crash (*Am J Obstet Gynecol* 2008;198:450.e1-9). Higher crash severity, more severe maternal injury, and lack of proper seat belt use were associated with a higher risk of adverse fetal outcome. Of

the fetuses that were killed or injured, 68% of the mothers were not wearing a seat belt. Nationally, 6-7% of pregnant women are involved in some type of motor vehicle crash during their pregnancy.

MORE THAN 5 million persons in the US have Alzheimer disease (www.alzinfo.org). The disease is the 7th leading cause of death in this country and the 8th leading cause in Kansas City. Yet, survival after Alzheimer disease is poorly understood for patients of diverse racial/ethnic backgrounds. A multicenter study has shown that blacks and Hispanics have longer survival times with Alzheimer disease than whites, Asians and Native Americans (*Neurology* 2008;70:1163-1170). At present, no explanation for the differential survival is available.

In 2006, 107 Kansas Citians died from Alzheimer disease, a 26% increase from 85 deaths recorded in 2002.

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 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.

Healthy People, Healthy Communities

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