

Community & Hospital Letter

Breast Cancer Issues

Breast cancer is the most common type of cancer among women in the United States. More than 200,000 new cases of breast cancer will be diagnosed this year and more than 40,000 women will die from it. According to the Centers for Disease Control and Prevention (CDC), in 2004, 15% of all cancer deaths in women will be from breast cancer (MMWR 53:SS-3, 2004).

Approximately 1 in 9 women will develop breast cancer at some time during her lifetime. Nationally, the death rate from breast cancer among women declined 2.3% a year between 1990 and 2000. The declines were significant for whites, blacks, Hispanics, and Asians. Among Native Americans, the death rates remained stable. White and Asian women are more likely to be diagnosed at a localized stage of breast cancer than women of other racial and ethnic groups. Non-white women are 1.4 to 3.6 times more likely than whites to be diagnosed with advanced breast cancer (Arch Intern Med 163:49, 2003). However, even when controlled for age and stage of diagnosis, black, Hispanic white, and Native American women have an increased risk of death after diagnosis compared with white and Asian women (Cancer 101:3, 2004).

Since 1999, Kansas City has been below the national Yr 2010 objective of 22.3 deaths per 100,000 women due to breast cancer. Although the age-adjusted death rates declined 18% between 1997 and 2002, the trend between those two years was not statistically significant. A comparison of the age-adjusted death rates for the period 1993-1997 and 1998-2002, showed decreases for black and white women, 14% and 22%, respectively. Black women in Kansas City, however, were still a third more likely to die of breast cancer than white women.

Breast cancer rarely occurs in men (0.6% of all breast cancers), but the incidence of the disease is increasing, rising from 0.86 per 100,000 men in 1973 to 1.08 in 1998 (Cancer 101:51, 2004). It is predicted that 1,600 cases will occur among men in 2004. Although the tumors are easier to feel in men, diagnosis typically occurs at a late stage. Compared to female patients, men with breast cancer are older when diagnosed, age 67 y vs 62 y for women, and are more likely to have advanced, metastasized disease. Consequently, men are more likely to die from the disease than are women. Out of 121 breast cancer deaths among Kansas City residents in 2001 and 2002, 5 (4%) involved men (*Community Health Assessment 2004*, KCMO

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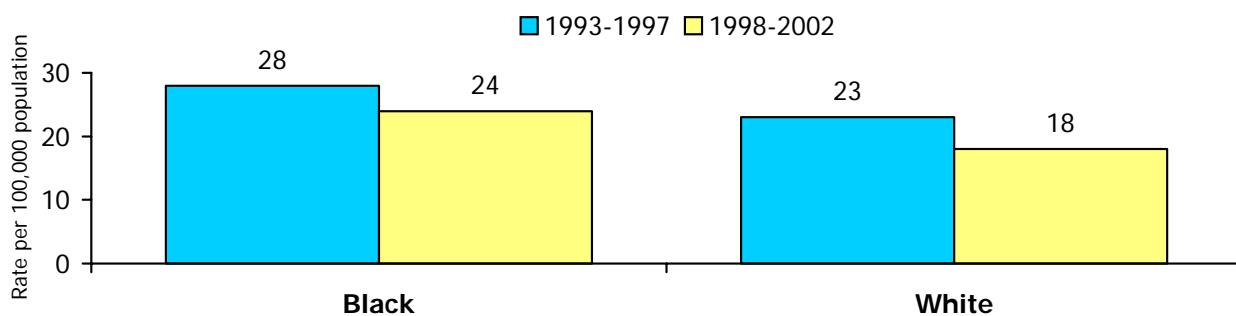
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Health Department, May 2004).

Acceptance of traditional treatments for breast cancer varies by race and ethnicity, with blacks, Native Americans, and Hispanics more likely to refuse surgery or undergo a type of surgery not recommended by national cancer guidelines (Arch Intern Med 163:49, 2003). Death from breast cancer increases with age, with nearly 54% occurring among women ≥ 65 years old. When compared to Canada, England, Australia and New Zealand, breast cancer 5 year survival rates are highest in the United States (Health Affairs 23:89, 2004).

According to the Missouri Department of Health and Senior Services' 2003 Behavioral Risk Factor Surveillance System data, 60-67% of Kansas City women 40-64 y old had a mammogram or clinical breast cancer examination in the prior year. However, simply having a mammogram within the prior year does not equate to the behavior of receiving an annual breast examination. A 10 year longitudinal study of women seen at Massachusetts General Hospital found that only 6% of women >40 y of age actually had an annual mammogram; most received only 5 exams over the 10 year period or half the recommended number (Cancer 101:online 21 June, 2004).

Figure 1 Age-adjusted death rates due to breast cancer, Kansas City, Missouri



While early detection of breast cancer is important in preventing breast cancer deaths among women, nationally, the number of mammography facilities declined 8.5% between 2000 and 2003, according to the Institute of Medicine (*Saving Women's Lives: Strategies for Improving Breast Cancer Detection and Diagnosis*, The National Academies Press, 2004). Each year, more than 1.2 million American

women turn 40, the age when most are recommended to get their first mammogram, but there are not enough breast imaging specialists to keep up with the demand. In some regions, this has created a major hindrance to women being screened. Fortunately, in the Kansas City metropolitan area, there is no shortage mammography services (*Kansas City Star*, 6/11/04).

Potpourri

As of this writing West Nile virus (WNV) had been detected in 30 states (including 7 counties in Missouri) with human cases in 8 states. No cases in human or animals have been reported in the Kansas City area. WNV also has been found in 3 Canadian provinces, 18 Mexican states, and Puerto Rico.

Entomological research suggests that WNV has done so well in the US because of a hybrid mosquito species that results from the mating of *Culex pipiens* and *C molestus* species (Science 303:15535, 2004). The resultant hybrids feed on

both birds and humans and constitute about 40% of *C pipiens* actually are hybrids. In Europe, the rate of mosquito hybridization is about 10% and West Nile virus is not the problem that it is in the US. West Nile virus has been found in 43 species of mosquitoes of 10 different genera in the US.

Meanwhile, the mosquito transmitted dengue fever virus has been reported in south Texas, an almost annual event in recent years. In Indonesia, dengue claimed more than 670 lives in the first 5 months of 2004.

S*higella boydii* 20, a new serotype of *Shigella*, may be carried into this country by people returning from Mexico and other foreign countries, and by people who bring in foreign-made foods, such as salsa and cheese. This serotype was first recognized in Canada in 1999. Between October 2000 and January 2002, 112 isolates of *S boydii* 20 were recovered from US patients (Intern Med News 37(9):83, 2004). Seventy-five percent of these patients were of Hispanic ethnicity. No discrete outbreaks were detected and no specific food items were implicated.

A study of 15 of 16 adult survivors from the 2001 anthrax attacks in the US found that at 1 year post-infection, the survivors reported symptoms affecting multiple body systems, significantly greater overall psychological distress, and significantly reduced health-related quality-of-life indices compared with a control group (JAMA 291:1994, 2004). Inhalation anthrax survivors reported significantly lower overall physical health than survivors of cutaneous anthrax. Eight of the 15 individuals had not returned to work since their infection.

Respiratory syncytial virus (RSV) causes bronchiolitis in infants, which is associated with recurrent wheezing in later childhood. There is mounting evidence that the virus becomes latent or persists *in vivo*, but little is known about the mechanisms of its latency, persistence, and immune evasion. A recent report suggests that RSV latency depends on persistence in privileged body sites rather than on viral mutation (Am J Respir Crit Care Med 169:801, 2004). Researchers found that mice infected with the human strain of RSV no longer shed virus from their airways after 14 days. However, the viral genome could be detected in the lung tissue for over 100 additional days. This suggests that RSV is a “hit and hide” agent. Once the symptoms go away, the virus simply resides in lung tissue and can later re-emerge to infect other persons.

The more outdoor air is pumped into office ventilation systems, the lower the inside levels of rhinoviruses in the work place (Am J Respir Crit Care Med 169:1187, 2004). While this association does not provide definitive proof that rhinoviruses are transmitted through the aerosol route and that transmission is modulated by outdoor air supply rates, it does provide support for this hypothesis.

Workers should just stay home when they are sick rather than coming in and “toughening it out” (J Occup Environ Med 46:398, 2004). Workers who come in sick cost their employers an average of \$255 each per year due to decreased productivity. Economists refer to slack productivity from ailing workers as “presenteeism” and it may cost employers even more than absenteeism due to illness, particularly if the worker starts an epidemic among coworkers.

Three South Asian species of vultures, the white-rumped, the slender-billed, and the Indian, are threatened with extinction due to the use of a veterinary drug, diclofenac, in treating cattle and other livestock. This anti-inflammatory drug remains in the animal’s body for 90 hours. If the animal dies during this time and the carcass left for the vultures, then the vultures that feed upon it probably will die from diclofenac induced kidney failure. Up to 200 birds can feed on the carcass of a large buffalo or camel. The vulture deaths are due to a build up of high levels of uric acid. Over 85% of vulture deaths are attributed to diclofenac exposure.

Vehicle-related road debris (VRRD) is material – vehicle parts or cargo – that has been unintentionally discharged from a vehicle onto a roadway. Even a small item may be dangerous when it is discharged at highway speed prompting erratic avoidance maneuvers, and causing a crash. According to the National Traffic Highway Safety Administration (NTSHA), VRRD is estimated to cause over 25,000 crashes per year, claiming 81-90 lives. A third of VRRD accidents result in injuries. NHTSA also estimates that in 21% of VRRD crashes, the motorist successfully avoided the VRRD only to crash immediately after taking evasive action. In Missouri, during 1999-2001, VRRD accounted for 13 fatal crashes or 0.4% of fatal crashes.

Alopecia (hair loss) has become a significant issue among black women, the result of certain hairstyles that pull too tightly on the scalp and harsh chemical agents that damage the hair shaft and follicles (Intern Med News 37(9):43, 2004). The unique properties of black hair make it more susceptible to damage, breakage, thinning, and loss from direct heat, chemicals, and combing. Black hair is a product of curved follicles – unlike the straight follicles of white and Asian hair – and grows slowly. The tightly coiled spiral configuration

of black hair, keeps natural sebum secretions from flowing down the hair shaft. As a result, black hair tends to be dry and brittle. The water content in black hair is less than that in white or Asian hair. Traction alopecia among black women often arises from locks, twists, weaves, very tight ponytails, and particularly braids, including those with extensions. These women typically have symmetrical thinning and hair loss at the front of the head and the temples; often there is a triangular pattern above the ears.

According to the Chinese Health Ministry, on the Chinese mainland rabies accounts for >1,000 human deaths per year (ProMED 6/20/04). This is down from the 4,000-6,000 cases annually in the mid-late 1980s, but up substantially from the 159 cases in 1996. The government attributes the rise in deaths to the increasing number of dogs, low vaccination rates, poor control on the quality of the vaccine used in dogs, incorrect treatment of wounds, and lack of cooperation between different official departments regarding rabies control.

Between 1999 and 2003, the Kansas City Health Department received 5 reports of malaria in City residents who had traveled abroad. Nationally, there were 1,337 cases of malaria reported in 2002; 5 were acquired in the US and 1 was congenitally acquired (MMWR 53:SS01, 2004). US civilians were 84% of the cases, with 75% of the people acquiring their malaria in Africa. CDC has created a new malaria web site with updated global information (www.cdc.gov/malaria).

In 2002, the prevalence of peanut and tree nut allergy among people in the US was 1.04% overall and 1.2% for adults (J Allergy Clin Immunol 112:1203, 2003). Among children peanut-tree nut allergies were more common among males, whereas among adults, it is females who were more likely affected.



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