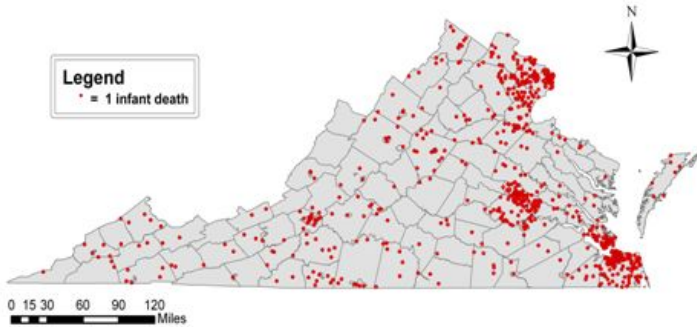




Henrico County Infant Mortality

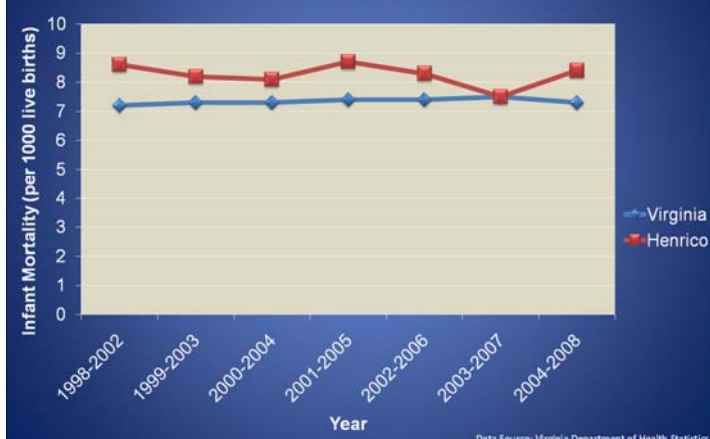
Story by: Jessica Watson, District Epidemiologist

An infant death is defined as the death of an infant before his or her first birthday. The map below shows the number infant deaths among Virginia residents during 2008.



An infant mortality rate is the number of infant deaths per 1,000 live births. Infant mortality rates are often used to compare the health and well-being of populations. A low rate of infant mortality typically signifies a healthier population. In 2008, there were 3,991 live births and 41 infant deaths in Henrico County, representing an infant mortality rate of 10.3 per 1,000 live births. In comparison, in 2008 there were 106,578 live births and 716 infant deaths in the state of Virginia, representing an infant mortality rate of 6.7 per 1,000 live births. To follow trends in infant mortality rates over time, 5-year average infant mortality rates are compared. From 2004 – 2008, Henrico County's 5-year infant mortality rate increased compared to the state of Virginia's 5-year rate (see graph below).

Five-Year Infant Mortality Rates, Virginia and Henrico, 1998-2008



Henrico County Community Action Team (CAT) Kickoff

Story by: Augustine Doe, MRC Coordinator

On Thursday, May 20, 2010, the Henrico County Health Department held the inaugural Community Action Team (CAT) meeting at the Henrico Theatre. The purpose of the CAT team is to partner with community members to raise awareness about and work to reduce infant mortality in Henrico County. The meeting was attended by over twenty local partners and stakeholders, including the Henrico County Director of Social Services, VCU Masters in Public Health students, a dentist, the Henrico Deputy County Manager for Community Services, the Director of Richmond Healthy Start, and Medical Reserve Corps (MRC) volunteers.

Susan Fischer Davis, MD., Director, Henrico Health Department, presented an overview of infant mortality in Henrico County and Virginia. Cheryl Bodamer, RN, MPH, PhD, Coordinator, Central Commonwealth Perinatal Council, presented the top underlying causes of infant deaths in Virginia, which include disorders related to short gestation and low birth weight, congenital malformations, and Sudden Infant Death Syndrome (SIDS). Cheryl also discussed the Fetal Infant Mortality Review (FIMR) process in Virginia which is responsible for assessing, monitoring, and improving perinatal services and community resources for women, infants, and families. One of the ways in which these responsibilities are met is by empowering community coalitions, such as the CAT.

Other presentations included information about the "text4baby" program, a free mobile information service designed to promote maternal and child health; updates on Henrico's Community Voice Programs designed to increase community awareness and knowledge about infant mortality among African Americans and the basics of mother and baby care; and videos from the "Saving Babies" campaign, a campaign focused on Prenatal Health & Premature Labor.

The next CAT meeting will be held on Thursday, July 29, 2010 at 6 PM at the Henrico Theatre on Nine Mile Road. If you or anyone in your organization is interested in working on reducing infant mortality and joining the Henrico CAT, please contact us at Augustine.Doe@vdh.virginia.gov.

Listeriosis in Pregnancy

Story by: Sharon Wampler, RN

Two listeriosis infections in Henrico residents were reported recently to the Henrico County Health Department. One infection was in a pregnant woman and the second was in her newborn infant. Listeriosis is caused by the bacteria *Listeria monocytogenes* which is found in soil, forage, water, mud, livestock food, and silage. In addition, *Listeria monocytogenes* has been isolated from soft cheeses, unpasteurized dairy products, uncooked meats and vegetables, and processed foods such as cold cuts. Unlike other foodborne pathogens, *Listeria monocytogenes* can multiply in refrigerated foods that are contaminated.

Although most sporadic infections are caused by foodborne transmission, *Listeria monocytogenes* can be transmitted from the mother to the fetus *in utero* and during passage through the infected birth canal. Persons at risk for contracting listeriosis include the elderly, immunocompromised individuals, newborns, and pregnant women. Although listeriosis is not common, pregnant women are about 20 times more likely than other healthy adults to be diagnosed with listeriosis, and an estimated 1/3 of all listeriosis cases occur during pregnancy. An infant can be infected during the last trimester of pregnancy or during birth and become ill in the first 3 weeks of life.

Symptoms of listeriosis include fever, muscle aches, and nausea and diarrhea. Neurological symptoms also may occur and include headache, stiff neck, confusion, loss of balance, and seizures. Symptoms of listeriosis usually appear 3 weeks after exposure but can appear as soon as 3 days or as long as 70 days after exposure. Healthy hosts may experience only mild flu-like illness; however, infection in pregnant women can lead to miscarriage, stillbirth, premature delivery, or infection in the newborn.

In addition to general guidelines to prevent foodborne illness, pregnant women should avoid soft cheeses, heat all leftovers and ready-to-eat foods (such as hot dogs) until steaming hot and heat deli meats before eating. For more information or patient handouts go to:

<http://www.fda.gov/Food/ResourcesForYou/HealthEducators/ucm083320.htm> or

http://www.cdc.gov/ncbddd/pregnancy_gateway/infections-Listeria.html.

Periodontal Disease Linked to Stillbirth

Story by: Deborah Ward, RN

The April/May 2010 issue of *Nursing for Women's Health*, summarized a February 2010 article titled "Term Stillbirth Caused by Oral *Fusobacterium nucleatum*," published in *Obstetrics and Gynecology*, documenting a possible link between a mother with gum disease and the death of her fetus. Yiping Han, a researcher from Department of Periodontics at Case Western Reserve University School of Dental Medicine, highlighted a case involving a 35 year-old mother who delivered a stillborn infant at 39 weeks, 5 days gestation. The mother reported excessive gum bleeding during her pregnancy.

The amniotic fluid was not available for testing but Han suspects, based on work with animal models, that the bacteria entered the amniotic fluid and eventually was ingested by the baby. However, this mother also experienced upper respiratory infection symptoms with a low grade fever a few days before the stillbirth. Postmortem studies of the baby found the presence of *Fusobacterium nucleatum* in the lungs and stomach. The cause of the infant death was determined to be from sepsis and inflammation caused by *Fusobacterium nucleatum*.

During a postnatal visit to a periodontist, plaque samples were obtained from the mother's teeth. DNA cloning technologies verified the bacteria found in the mother's mouth matched the bacteria isolated from the baby's lungs and stomach. Han found no presence of *Fusobacterium nucleatum* from the vaginal and rectal areas of the mother. Han stated, "The testing strongly suggested the bacteria were delivered [to the fetus] through the blood." This research points to the importance of good oral health and dental care for pregnant women and women planning to become pregnant.

"tex4baby" Program

Simply text the word BABY (or BEBE for Spanish) to 511411. Once registered, participants will start receiving free messages with pregnancy and caring-for-baby tips. To stop receiving messages from "TEXT4BABY," text STOP to 511411.

More information available at <http://www.text4baby.org/>