

# HIV/AIDS in Kansas Teens

By Jane Stueve, Adolescent and School Health Consultant



**H**uman Immunodeficiency Virus (HIV) testing is the key to teen treatment and care. Knowledge of HIV status is important for preventing the spread of the virus in teens. Studies show that those who learn they are HIV positive modify their behavior to reduce the risk of transmission and obtain medical care that can reduce morbidity and mortality.

Teens may be at increased risk for infection if they have:

- Injected drugs or steroids, during which equipment (such as needles, syringes, cotton, water) and blood were shared with others
- Had unprotected vaginal, anal or oral sex (that is sex without using condoms) with men who have sex with men, multiple partners or anonymous partners
- Exchanged sex for drugs or money
- Been given a diagnosis of, or been treated for, hepatitis, tuberculosis (TB) or a sexually transmitted disease (STD) such as syphilis
- Received a blood transfusion or clotting factor during 1978–1985
- Had unprotected sex with someone who has any of the risk factors listed above

If a teen tests positive for HIV, the sooner they take steps to protect their health, the better. Early medical treatment and responsible choices can delay the onset of AIDS and prevent some life-threatening conditions.

HIV destroys a certain kind of blood cell (CD4+ T

cells) which is crucial to the normal function of the human immune system. Studies have revealed that most people infected with HIV carry the virus for years before enough damage is done to the immune system for Acquired Immunodeficiency Syndrome (AIDS) to develop.

Once HIV is found in the body, the CD4 cells are counted on a regular basis. A teen with HIV will have 500 or more CD4 cells in a drop of blood. If the number of CD4 cells in that drop of blood drops below 200, one is then diagnosed with AIDS. This low number means the immune system has a hard time preventing illnesses and infections. Once their CD4 number is below 200 and AIDS is diagnosed, even if their CD4 cell number rises again, they are still considered to have AIDS.

From 2007 to 2008, HIV has increased 18.5 percent and AIDS has decreased 16 percent in Kansas. This is promising news because this means that HIV cases are found before they have advanced into AIDS. In 2008, Kansas HIV data showed there were 13 cases reported <14 years of age and 282 cases reported for ages 15 to 24. This same year, the prevalence of AIDS reported in Kansas was 8 cases <14 years of age and 95 cases for ages 15 to 24 years of age. HIV/AIDS is more prevalent in males than females; 85 percent of the cases are male and 15 percent female.

There are numerous clinic sites across Kansas that offer testing for HIV free of charge or at a minimal fee. For more information go to [www.kdheks.gov/hiv/contract.html](http://www.kdheks.gov/hiv/contract.html) or call (785) 296-6174. You can also call your local health department for information on HIV.

Making HIV testing a routine part of health care for adolescents is one of the most important strategies recommended by CDC for reducing the spread of HIV/AIDS.

# Asthma Management

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**A**sthma is a chronic lung disorder that is marked by recurring episodes of airway obstruction as from bronchospasm. It is manifested by labored breathing accompanied by wheezing and coughing and by a sense of constriction in

the chest. It is triggered by hyper reactivity to various stimuli such as allergens or a rapid change in air temperature.

Once asthma is assessed, control is emphasized in order to affect the quality of life and functioning of a person over a period of time. Ways to manage asthma according to the National Institute of Health (NIH) include:

- Measures of assessment and monitoring (obtained by objective tests, physical examination, patient history and patient report) to diagnose and assess the characteristics and severity of asthma and monitor whether asthma control is achieved and maintained
- Education for a partnership in asthma care
- Control of environmental factors and co-morbid conditions that affect asthma
- Pharmacologic therapy

School nurses play a major role in keeping students in school every day and managing asthma by assessing and monitoring the students control and responsiveness to treatment.

When evaluating a student with an asthma diagnosis, general observations to make may include if the student has a long term control medication as well as quick-relief (short-acting B2-agonist) medication that the students is allowed to carry. The nurse should identify asthma triggers, and have a plan of action if the asthma symptoms increase. All of these observations should be documented in an asthma health care plan.

A Kansas Asthma Action Plan (health care plan) can be found on the KDHE web site on the School Health Resources/Forms page [www.kdheks.gov/c-f/school\\_resources\\_forms.html](http://www.kdheks.gov/c-f/school_resources_forms.html). The form provides a plan of care which includes a place for documenting signatures from parents and physician along with permission to carry documentation.

When the Kansas Asthma Action Plan form was developed, the National Institute of Health (NIH) for guidelines were reviewed. The NIH and the National Heart, Lung and Blood Institute (NHLBI) specifically say peak flow meters are designed as monitoring, not as diagnostic, tools in the office. The preferred method for measuring lung function in a physician's office is spirometry. Keeping this in mind, our advisory board supported not listing monitoring tools on the Kansas Asthma Action Plan. The peak flow meter is a monitoring tool much like a thermometer or blood pressure cuff and a physician order is not needed for monitoring. If the physician wants specific peak flow readings, an order can be written with specific instructions and guidance for reporting reading.

The accuracy of peak flow monitoring device may decrease over time (Irvin et al. 1997). Reference values should be brand-specific and consideration should be given to reviewing technique with the student or replacing the meter. The peak flow meter is not predictive as a stand-alone measurement of lung function.

The NHLBI Asthma Management guidelines state, "Either peak flow monitoring or symptom monitoring, if taught and followed correctly, may be equally effective". The NIH points out that how the nurse determines breathing capacity is not the important issue, it is to have a plan of action in place for asthma management.

For more information on managing asthma, go to the American Lung Association and look at Asthma-Friendly Schools Initiative (AFSI). AFSI is a planning tool based on real-life activities that have been used in schools.