



Heptatitis Awareness Month *Hepatitis B and C*

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Awareness and Education

In recognition of Hepatitis Awareness Month, May 2008, the Centers for Disease Control and Prevention (CDC) has made downloadable pamphlets available from its website for use by local health departments and private providers. To further educate, provide information and raise hepatitis awareness, these pamphlets can be distributed to persons with hepatitis, and made readily available as counter top handouts for anyone wishing to learn more about hepatitis. For free electronic educational materials, brochures and posters, access the CDC website (<http://www.cdc.gov/pubs/hepa.aspx>) and order all hepatitis materials electronically, free of charge. The following address links directly to the hepatitis C website <http://www.cdc.gov/ncicod/diseases/hepatitis/c/index.htm>; and this address is the hepatitis home page <http://www.cdc.gov/ncicod/diseases/hepatitis>.

Last year, Kentucky confirmed 75 acute cases of hepatitis B (HBV) and 28 new cases of hepatitis C (HCV). Approximately 500 million people worldwide are affected by hepatitis B or C and the majority of those infected are unaware of their condition. Every year 1.5 million people die from either HBV or HCV. Hepatitis C is 10 times more infectious, and HBV 100 times more, than Human Immunodeficiency Virus (HIV). If left untreated, HBV and HCV may lead to cirrhosis, and potentially to liver cancer, liver failure and death.

In the United States, approximately half of the 1 million persons with chronic HBV infection are Asians/Pacific Islanders, most of whom became infected with HBV before arriving in the United States. Many remain unaware of their infection. The HBV-related death rate among Asians/Pacific Islanders is seven times greater than the rate among whites (CDC, unpublished data, 2007).

Transmission of HBV and HCV occurs when blood from an infected person enters the body of a person who is not infected

HBV can be spread through having sex with an infected person without the use of a condom. HBV and HCV are commonly spread by sharing drugs, needles, or "works" when injecting drugs, through needlesticks or sharps exposures on the job, or from an infected mother to her baby during birth.

Disease due to HCV infection is the leading indication for liver transplant. It is estimated that 55%-85% of infected persons will develop chronic infection. Approximately 70% of those chronically infected will develop chronic liver disease, and 1%-5% of infected person with chronic liver disease may die.

Prevention methods and vaccination

If sexually active with more than one partner,

May Notes & Reports...

Hepatitis Awareness Month.....	1
World No Tobacco Day.....	3
Rabies in Kentucky—2007.....	5

always correctly use latex condoms every time you have sex. The efficacy of latex condoms preventing infection with HBV or HCV is unknown, but proper use is assumed to reduce transmission.

If pregnant, get a blood test for HBV. Infants born to HBV-infected mothers should be given HBIG (hepatitis B immune globulin) and vaccine within 12 hours after birth.

For those who shoot drugs, stop and get into a treatment program. Never share drugs, needles, syringes, water, or "works", and get vaccinated against hepatitis A and B.

Do not share personal care items that might have blood on them (such as razors or toothbrushes).

Consider the risks if you are thinking about getting a tattoo or body piercing. If the tools have someone else's blood on them or if the artist or piercer does not follow good hygiene practices, a significant infection risk exists.

Health-care or public safety workers should get vaccinated against HBV. Always follow routine barrier precautions and safely handle needles and other sharps.

Hepatitis A and B Vaccine

Infection with HAV can add more stress to the liver of anyone already infected with HBV or HCV. Vaccination is the best form of protection to prevent infection with HAV and HBV. For 2008, the Kentucky State Immunization Program has been allocated money through Federal 317 funds to provide Hepatitis A/B vaccine to targeted high risk groups. These include injecting drug users, men who have sex with men, detention center inmates and homeless facility residents, and specifically, patients at the Family

Planning and Sexually Transmitted Diseases Clinics in the Louisville/Metro and Lexington/Fayette County Health Departments. Twinrix®, the combination hepatitis A and B vaccine, or a single antigen hepatitis B vaccine, may be administered free of charge to those in these high risk groups, who are primarily indigent, or have low or no income. However, only the vaccine is free of charge. There is a vaccine administration charge, which is usually a minimal fee or based upon a sliding scale fee

based on income.

Pharmaceutical Companies' Patient Assistance Program Information for Hepatitis C

There is no vaccine to prevent hepatitis C. There are two medications licensed for the treatment of some persons with chronic hepatitis C, interferon and ribavirin. Combination therapy can get rid of the virus in up to 5 out of 10 persons for genotype 1 and in up to 8 out of 10 persons for genotype 2 and 3. Early detection and treatment are important to preventing long-term effects of liver disease.

For more information, contact the Division of Epidemiology and Health Planning Adult Viral Hepatitis Prevention Coordinator, Peggy Dixon, or Dr. Robert Brawley, 502/564-3261, option 3.

Additional References

[http://www.cdc.gov/Features/Hepatitis/MMWR_Weekly_May_11_2007/56\(18\);441](http://www.cdc.gov/Features/Hepatitis/MMWR_Weekly_May_11_2007/56(18);441)
"Hepatitis Awareness Month—May 2007"

Those who test positive for HBV or HCV should:

- ⇒ Avoid alcohol, or any other substance which can cause liver damage.
- ⇒ Protect others from exposure to infected blood and other body fluids with the practice of good hand washing.
- ⇒ Advise exposed sexual partners they should be tested for HBV and HCV.
- ⇒ Get vaccinated against hepatitis A (HAV).

World No Tobacco Day—May 31 ***Tobacco Free Youth***

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Introduction

As part of the Tobacco Free Initiative (TFI) of the World Health Organization (WHO), World No Tobacco Day has been observed annually since 1988. World No Tobacco Day serves as an opportunity to increase awareness of the worldwide tobacco epidemic and the preventable disease and death it causes. Member states of the WHO created World No Tobacco Day in 1988 as Resolution WHA42.19, calling for the celebration of World No Tobacco Day every year on May 31. This year, WHO's theme is "***Tobacco-Free Youth***".

Tobacco use is the leading cause of preventable morbidity and mortality in the world. Smoking is a major risk factor for the four leading causes of death: heart disease, cancer, stroke, and chronic obstructive pulmonary disease. WHO estimates worldwide, five million deaths a year are attributable to tobacco use and the number is expected to exceed 10 million deaths by 2020, with approximately 70 percent of these deaths occurring in developing countries. Here in the U.S., an estimated 400,000 adults die each year from their own smoking and it is projected that 6 million youths under the age of 18 will ultimately die from smoking, unless current rates decline.

The TFI was established in July 1998 to focus international attention, resources, and action on the global tobacco epidemic. One of the primary objectives of TFI was to promote ratification of the WHO Framework Convention on Tobacco Control, the first international public health treaty on tobacco control. The treaty urges countries to develop action plans for public policies (e.g., banning direct and indirect tobacco advertising, instituting tobacco tax and price increases, promoting smoke-free public places and workplaces, and placing health messages on tobacco packaging).

Call-to-Action

As part of this year's theme, WHO's action call includes strategies to reduce tobacco consumption, including advocating for a total ban on advertising, promotion, and sponsorship of tobacco products. WHO advises:

Policy-makers:

- Require by law a comprehensive ban on all forms of advertising, promotion and sponsorship of tobacco products. Be aware that voluntary policies do not work and are not an acceptable response to protecting the public, especially youth, from tobacco industry marketing tactics.
- Implement policies and programs that do not target youth in isolation. Interventions that target the population as a whole, such as banning all forms of tobacco advertising, raising tobacco taxes, and creating 100 percent smoke-free environments have the greatest success in reducing youth tobacco use.

Young people:

- Let the policy-makers of your country, state, and city know what you think. Advocate for a total ban on advertising, promotion and sponsorship of tobacco products.
- Get involved in a campaign to educate your peers on how the tobacco industry uses advertising, promotion and sponsorship to persuade you to smoke or use other forms of tobacco. Let the industry know you won't be duped by its slick, expensive promotional efforts.

Non-Governmental Organizations:

- Advocate to policy-makers for a complete ban on advertising, promotion and sponsorship of tobacco products in your country, state, and city.
- Help organize youth groups so they can be part of the campaign and engage in the conception, development, implementation, monitoring and evaluation of tobacco control policies and programs to ban advertising, promotion and sponsorship of tobacco products.

The public:

- Call on policy-makers to ban advertising, promotion and sponsorship of tobacco products to protect young people.

Evidenced-Based Practices

The Centers for Disease Control and Prevention (CDC) recommends several strategies recommended to address the burden of tobacco use. They include: 1) Preventing initiation among youth and young adults, 2) Promoting quitting among adults and youth, 3) Eliminating exposure to secondhand smoke, 4) Identifying and eliminating tobacco-related disparities among population groups.

Kentucky has made progress within each of these recommendations. Activities directly targeted towards youth include preventing initiation and promoting quitting. Measures to reduce youth tobacco use and prevent initiation include raising the excise tax, promoting smoke-free environments (schools, workplaces, restaurants, etc.), prohibition of sales of tobacco products to minors, and increasing youth advocacy and awareness. Measures to promote quitting among adults and youth include Cooper-Clayton cessation classes, Kentucky Quit Line (**1800-QUIT-NOW**), and youth tobacco cessation programs (LifeSkills, Project Towards No Tobacco Use, TEG/TAP, etc). Contact your local health department in Kentucky or www.gethealthy.ky.gov for information on how to access these resources.

A resource to help schools with planning evidenced-based programs is the Physical Activity Nutrition Tobacco and Asthma (PANTA) School Resource Guide. PANTA is an instrument to assist schools and their local partners with health issues. This guide highlights initiatives that have become successful school programs and practices.

Youth Tobacco Use

Data from the 2000-2007 Global Youth Tobacco Survey (GYTS) indicate that 9.5 percent of students globally currently smoke cigarettes, while 10.1 percent used other tobacco products (i.e. smokeless tobacco, cigars, pipes, bidis, etc). For the U.S, the Youth Risk Behavior Surveillance System (YRBSS) has been used to measure progress on reducing tobacco use by adolescents. In 2005 cigarette use by high school students was 23.0 percent.

The 2006 Kentucky Youth Tobacco Survey (KYTS)

indicates that 25 percent of high school students and 12 percent of middle school students are current smokers. Other tobacco use is 34 percent for high school students and 19 percent for middle school students in Kentucky. These rates are among the highest in the nation. However, Kentucky has made significant progress in the reduction of current youth cigarette smokers since 2000 and, in fact, has surpassed the target status of Healthy Kentuckians 2010 of high school youth cigarette use less than 27 percent and middle school youth cigarette use less than 14 percent.

Youth Advocacy

Youth in Kentucky have been able to participate in empowerment activities through advocacy and campaigns against the tobacco industry. The Helping Overcome Tobacco (H.O.T.) in Kentucky is a statewide youth advocacy movement that provides an opportunity for young people to participate in state, regional, and local events to promote youth prevention and bring attention to tobacco issues such as tobacco use in schools. In February 2008, H.O.T. converged on the State Capitol to highlight tobacco use in Kentucky. The organization held a press conference urging the Kentucky General Assembly to pass legislation to increase the state tobacco excise tax by 70 cents. Additionally, H.O.T. displayed 642 pairs of shoes on the steps of the Capitol, representing the number of Kentuckians who die each month from tobacco use and exposure to secondhand smoke.

Other youth activities across Kentucky include the No Spit All-Stars, Tobacco Free Sports initiatives in schools and community groups, and advocacy and education groups such as Teens Against Tobacco Use (TATU). Additionally, each year, schools across the state participate in Kick Butts Day activities to raise awareness about the health and mortality issues related to tobacco and to support strong tobacco prevention policies. Many schools also plan activities around the Great American Smoke Out to highlight the need for smoking restrictions in public places.

References

CDC. Global Youth Tobacco Surveillance, 2000-2007. *MMWR* 2008; 57;1-21. Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5701a1.htm>.

Rabies in Kentucky—2007

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In 2007, the Kentucky Department for Public Health Division of Laboratory Services and the Breathitt Veterinary Center received 1079 animal specimens for rabies testing. There were 51 (4.7%) samples unsuitable for testing because of decomposition or extreme traumatic damage to the animal's brain. Out of the 21 (1.9%) specimens that tested positive for rabies; there were 10 positive domestic animals (47.6% of positives), 6 positive bats (10-year mean= 7.3), 4 positive skunks (10-year mean= 13.2), and 1 positive raccoon.

Unexpectedly, positive bats accounted for the majority of wild animals that tested positive for rabies. However the percent of positive bats

tested, 4.6%, was lower than the 10-year historical positive rate for bats tested, 6.0%. The number of rabies positive skunks was likewise low in comparison to the 10-year average of 12.7 cases. It should be noted, though, that all of the variant typed domestic animal cases were due to skunk rabies, which indicates that we are testing only a small fraction of all rabid skunks.

The occurrence of rabies positive dogs and cats is a reminder of the importance of pet rabies vaccination. Theoretically, there should be no rabid adult dogs, cats, or ferrets in Kentucky since there is a statewide law requiring that they be vaccinated against rabies by 4 months of age. Although not mandated, vaccination of horses and other valuable livestock is recommended, and would have prevented the 3 positive rabies cases in horses in 2007.

The statewide distribution pattern of positive rabies cases shown in Figure 1 may not be completely representative of rabies activity in the

Table 1. Animals Submitted for Testing and Number of Positives by Species

Species	Number Received	% of Total	Number Positive	% Positive
Canine (domestic)	372	34.5	5	1.3
Feline (domestic)	292	27.1	2	0.7
Bovine	31	2.9	0	0.0
Equine	47	4.4	3	6.4
Other Domestic	12	1.1	0	0.0
Rodents/Rabbits	33	3.1	0	0.0
Bat	131	12.1	6	4.6
Fox	19	1.8	0	0.0
Raccoon	91	8.4	1	1.1
Skunk	21	1.9	4	19.0
Other Wildlife	30	2.8	0	0
Totals	1079	100.1*	21	1.9

* > 100.0 due to rounding

state; it may only reflect the distribution of samples submitted for testing. Almost all of the samples submitted followed some form of suspicious interaction between the animal tested and a human or domestic animal, and 86.3% of all submissions involved a bite or other physical contact with a human or domestic animal. For rabies positive animals, 85.7% were known to involve potential rabies exposure to a human or domestic animal.

Unlike Ohio, Tennessee, and the states east of the Appalachian Mountains, Kentucky does not have the raccoon rabies variant epizootic. However, the Centers for Disease Control and Prevention considers Kentucky at risk for the introduction of the raccoon rabies variant from West Virginia or Tennessee. Multiple federal and state agencies are actively engaged in conducting active and passive surveillance for raccoon rabies, and in preventing the spread of raccoon rabies into Kentucky from those states in which it is already epizootic.

Human Rabies Postexposure Prophylaxis

Beginning June 16, 1997, rabies postexposure prophylaxis (PEP) became a reportable treatment-condition. This surveillance activity was mandated in order to estimate how many patients in Kentucky receive this expensive treatment. Surveillance of PEP allows the Kentucky Department for Public Health (KDPH) to follow trends in PEP administration which would reflect any changes in the number of human exposures due to an increase or decrease in rabid or suspected rabid animals. This may serve as an early warning of any rabies epizootics. It also allows KDPH to estimate the financial burden of this public health intervention. Both private and public reporters may report through the Disease Surveillance Module of the Kentucky Electronic Public Health Record, or they may still use the paper form EPID 200PEP, which is designed to guide the user through questions that may be useful in determining if PEP is indicated.

For 2007, 117 PEP events were reported to KDPH

as required; 91 (77.8%) reports were received from local health departments and 26 reports were from private providers. Unfortunately, the actual number of persons administered PEP compared to those reported is difficult to determine. Phone consultations and a previous survey conducted by the Division of Epidemiology and Health Planning indicate that not all PEP administrations are reported.

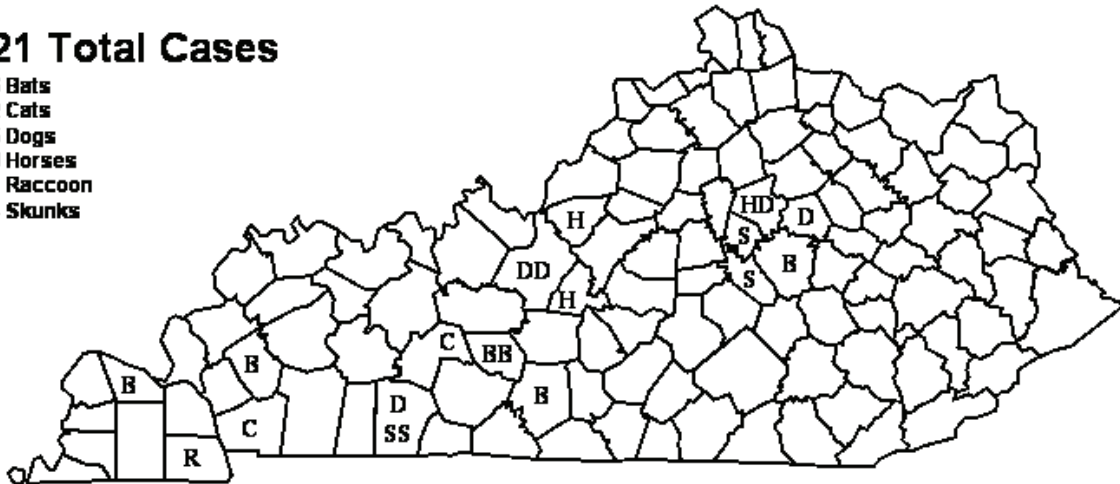
For the 117 patients for whom PEP was appropriately reported, half (50.4%) of persons receiving PEP were male, and the age distribution ranged from <1 year to 77 years old with a median age of 30 years. About half (53.0%) of PEP patients were reported to be covered by private medical insurance or workers compensation, 14.5% were covered by Medicaid or Medicare, and the remainder paid out of pocket or not at all. 34 incidents of (29.1%) PEP resulted from suspected exposures from contact with dogs, 26 (22.2%) with bats, 21(18.0%) with cats, 17 (14.5%) with horses, 13 (11.1%) with raccoons, 1 (0.9%) with a weasel, and 1 (0.9%) with a squirrel (PEP is not indicated for exposure to small rodents). The animal species was not reported for the remaining 4 (3.5%) contacts.

In most of the cases requiring PEP (64.1%), the animal was either killed and disposed of without testing, or escaped and was not captured for observation or testing. An animal was available for rabies testing or observation for only 42 (35.9%) of the patients receiving PEP. For known rabies positive animals, 12 patients were exposed to a known positive horse, 5 patients to another positive horse, 6 patients to one positive dog, 4 patients to another positive dog, and 1 patient to a 3rd positive dog. 2 patients were exposed to positive cats, 5 patients to a positive "pet" raccoon, and 3 patients to positive bats. There were 4 patients who began PEP from 4 different dog bite incidents in which the dog was available for 10-day observation and none of the dogs developed signs of rabies; these 4 patients could have avoided PEP if providers had followed routine public health guidance.

Rabies Cases in Kentucky - 2007

21 Total Cases

- 6 Bats
- 2 Cats
- 5 Dogs
- 3 Horses
- 1 Raccoon
- 4 Skunks



- Barren – 1 Bat**
- Bullitt – 1 Horse**
- Butler – 1 Cat**
- Caldwell – 1 Bat**
- Calloway – 1 Raccoon**

- Clark – 1 Dog**
- Edmonson – 2 Bats**
- Fayette – 1 Dog, 1 Horse**
- Garrard – 1 Skunk**
- Hardin – 2 Dogs**
- Jessamine – 1 Skunk**

- Larue – 1 Horse**
- Logan – 1 Dog, 2 Skunks**
- Madison – 1 Bat**
- McCracken – 1 Bat**
- Trigg – 1 Cat**

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Victims of bites adversely contribute to the outcome of the event by not capturing the animal or by improperly killing the biting animal. (The brain must remain intact for testing; gunshot or clubbing to the head are not acceptable euthanasia methods.) Kentucky Revised Statute 258.065 requires all medical providers, parents of children bitten, or adults bitten that do not require medical care to report animal bites to the local health department within 12 hours of the incident or the next working day if the local health department is closed. Prompt reporting of the bite provides an opportunity for local health department personnel to either quarantine the domestic animal for observation or have the animal (wild or domestic) tested for rabies. If the incident is reported after a lengthy time delay, the chances of recovering the animal for testing

or observation are greatly diminished.

For previously unvaccinated individuals, PEP is a series of 5 doses of vaccine administered over 28 days, plus the administration of human rabies immune globulin. PEP biologics, while carrying a low risk for adverse side effects, are only available in limited supply, are very expensive (average wholesale cost of the biologics for a 165-pound person is about \$1500), and require considerable time expenditures for the provider and the patient. For these reasons PEP should not be administered unless there is a well-founded indication for its use. For more information on rabies, PEP, or reporting PEP, please call the Division of Epidemiology and Health Planning at (502)564-3418 or toll free at (888) 9REPORT.

KENTUCKY EPIDEMIOLOGIC NOTES & REPORTS

Printed With State Funds by the
Commonwealth of Kentucky
Cabinet for Health and Family Services
Department of Public Health
Mail Stop
275 East Main Street
Frankfort, Kentucky 40621



RETURN SERVICE REQUESTED

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