

# EPI UPDATES

Kansas Dept. of Health and Environment

Bureau of Surveillance & Epidemiology

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## NEW KDHE POLICY ON CYANOBACTERIAL BLOOMS

On August 13, 2010 the Kansas Department of Health and Environment accepted a policy developed by the Division of Health and the Division of Environment to manage cyanobacterial (blue-green algae) blooms. Cyanobacterial toxins in freshwater has been implicated in human and animal illness in at least 36 states in the United States.

Cyanobacteria, also known as blue-green algae, grow in any type of water and are photosynthetic (use sunlight to create food and support life). Cyanobacteria live in terrestrial, fresh, brackish, or marine water. They usually are too small to be seen, but sometimes can form visible colonies, called an algal bloom. Although many species of algae do not produce toxins, some species of blue-green algae can cause Harmful Algal Blooms (HABs).

HABs can produce neurotoxins (which affect the nervous system) and hepatotoxins (which affect the liver). These toxins can potentially impact the health of people and

animals that come into contact with water where HABs are present. The greatest risk of adverse human



Blue green algae at Veterans Lake.

health effects after exposure to these toxins is through accidental ingestion and inhalation of the affected water during recreational activities such as swimming and skiing. Potential health effects can vary and are dependent upon the type of toxin and route of exposure. Contact with high concentrations of cyanobacteria, independent of the level of toxins, may also cause adverse health effects.

This policy provides recommendations to prevent human illness based on the World Health Organization's safe recreational water environ-

ment guidelines. The implementation of these recommendations is the responsibility of the governing authority of the affected body of water. The two actionable levels are a Public Health Advisory or a Public Health Warning. During an advisory direct contact with the affected body of water is discouraged. A warning will recommend to the governing agency over the water body to post signs stating that direct contact with the affected body of water is prohibited. KDHE will notify the immediate and surrounding counties via a Health Alert Notification (HAN) of the bloom and request HAB related illnesses be reported to KDHE for surveillance purposes. KDHE will work with the affected communities and will rescind the advisory or warning when levels have decreased. - J. DeMent

To learn more about the new policy please contact **Jamie DeMent** at [jdement@kdheks.gov](mailto:jdement@kdheks.gov)

## CALANDAR OF UPCOMING EVENTS

### 67th Annual KPHA Meeting & Fall Conference

**What:** From BSE, Sheri Anderson will be presenting on foodborne disease outbreak investigations and Elizabeth Lawlor will give a presentation on an assess-

ment of the Kansas hospitals' prevention policies for perinatal infections.

**When:** Wed. Sept 29th—Thurs. Sept.30th, 2010

**Where:** Capital Plaza Hotel, Topeka, KS

Click [here](#) for details!

Have an upcoming event you would like included in the October issue?

Contact [vbarnes@kdheks.gov](mailto:vbarnes@kdheks.gov) with details.

## WELCOME NEW BSE STAFF

### AMY PETERSON: EIS OFFICER



Dr. Amy Peterson joined BSE as the Epidemic Intelligence Service (EIS) Officer on August 5, 2010. She is assigned to KDHE-BSE for a two-year commitment period. Amy graduated with a BS in Biology and a

minor in philosophy from Washington College in 1997. She received her DVM from Tufts University School of Veterinary Medicine (MA) in 2001. Amy completed her PhD in Infectious Disease Epidemiology at John Hopkins School of Public Health in 2010. Her thesis was over Environmental and Occupational Exposures to MRSA.

Dr. Peterson practiced large and small animal medicine for two years following veterinary school, then did a one year fellowship in veterinary pathology and comparative medicine at John Hopkins from 2003-2004. Additionally, she worked in small animal emergency medicine while working on her PhD.

Amy has also had the opportunity to spend time in the field investigating tick borne disease in Linares, MX, conducting rabies

oral bait drop program implementation in West Virginia, and studying disease transmission from animals to humans, specifically bushmeat hunters in rural villages, in Cameroon, West Africa.

Amy's public health interests include infectious disease monitoring and surveillance, public health and environmental impacts of agricultural events and animal disease outbreaks, zoonotic disease transmission, community level disease transmission and its impacts on hospital infection control, and integrating human, environmental, and animal health surveillance and response networks.

In her spare time Amy enjoys masters swimming, soccer, hiking, and exploring new places. She also enjoys spending time with Beethoven, her 12 year old rescue mutt.

- V. Barnes

## EPIDEMIC INTELLIGENCE SERVICE PROGRAM OVERVIEW

The Epidemic Intelligence Service (EIS) Program of the Centers for Disease Control and Prevention (CDC) is a training program that began in 1951. It has since trained over two thousand public health professionals in applied epidemiology and had a significant impact on the practice of epidemiology worldwide. The EIS program was created by Alexander D. Langmuir, a senior epidemiologist at the newly designated

CDC. It began with 22 physicians and one sanitary engineer. The program now has around 2500 alumni and has grown to include 65–75 positions available each year. Some 80 percent of incoming officers are physicians, while the rest include veterinarians, nurses, statisticians, and other professionals. Incoming EIS officers complete a two-year training, then they are assigned to a specific program at CDC

headquarters, a field station, another federal agency, or with a state or city health department for their two-year commitment. The role of EIS officers is to train public health personnel in epidemiology and provide epidemiologic services to states and other municipalities. They also develop and recommend appropriate control and prevention measures and investigate disease and injury occurrences in communities.



**There were no new outbreak investigations conducted by BSE in the month of July.**

For reports of recently conducted outbreak investigations, please visit our website at <http://www.kdheks.gov/epi/outbreaks.htm>

### 2009 H1N1 INFLUENZA A VIRUS REPORTING UPDATE

On August 10, 2010, the World Health Organization (WHO) announced that the world is no longer in phase 6 of influenza pandemic alert, but has moved on to the post-pandemic period: "The new H1N1 virus has largely run its course... As we enter the post-pandemic period, this does not mean that the H1N1 virus has gone away. Based on experience with past pandemics, we expect the H1N1 virus to take on the behaviour of a seasonal influenza virus and continue to circulate for some years to come."

In accordance with this announcement, KDHE-BSE will no longer be entering 2009 H1N1 influenza A virus laboratory results into KS-EDSS beginning Monday, August 23, 2010. However, the Kansas Health & Environment Laboratories (KHEL) will continue to test influenza specimens, and BSE will continue to monitor flu activity in Kansas.—D. Neises

## BREAKDOWN OF THE 706 CASES REPORTED\* IN KS-EDSS IN JULY 2010

Disease	May 2010	Average 2007-09		
2009 H1N1 Influenza A virus	15	130.67**	Legionellosis	2 1
Amebiasis (Entamoeba histolytica)	1	1	Listeriosis	1 0
Animal Bite: Potential Rabies Exposure	2	1.67	Lyme disease	25 49.67
Bordetella parapertussis	1	0	Malaria	1 .67
Brucellosis	2	.33	Measles	2 .67
Calicivirus/Norwalk-like virus (norovirus)	1	3.33	Meningitis; other bacterial	2 .67
Campylobacter	80	57.67	Mumps	8 2
Cryptosporidiosis	21	10	Pertussis	47 28.67
Dengue	2	1	Q Fever	2 4
Dengue Hemorrhagic Fever	1	.67	Rabies, Animal	10 5.33
Ehrlichiosis, Anaplasma phagocytophilum	8	2	Rubella	2 .33
Ehrlichiosis, Ehrlichia chaffeensis	17	4	Salmonellosis	65 52.67
E. coli O157:H7	4	4.33	Shigellosis	17 11
E. coli shiga toxin + (not serogrouped)	5	1	Spotted Fever Rickettsiosis (RMSF)	44 52
E. coli shiga toxin + (serogroup non-O157)	6	4.33	Streptococcus pneumoniae, invasive	6 4.67
Giardiasis	24	15	Tularemia	8 1.67
Haemophilus influenzae, invasive	2	2.33	Varicella	24 21.67
Hepatitis A	36	7.67	West Nile, non-neurological	18 15.67
Hepatitis B, acute	1	6.33		
Hepatitis B, chronic	46	64		
Hepatitis C virus, chronic	145	181.67		
Hepatitis E; acute	1	0		

\* Reported cases include Case Classifications Confirmed, Probable, Suspect, & Not a Case.

\*\* Cases only include numbers from June 2009.

## BREAKDOWN OF THE 692 CASES REPORTED\* IN KS-EDSS IN AUGUST 2010

Disease	May 2010	Average 2007-09		
2009 H1N1 Influenza A virus	2	120**	Legionellosis	1 1.33
Amebiasis (Entamoeba histolytica)	1	.33	Lyme disease	10 29.67
Animal Bite: Potential Rabies Exposure	4	2	Malaria	3 .67
Brucellosis	2	.33	Measles	2 1.33
Calciavirus/Norwalk-like virus (norovirus)	4	0	Meningitis; Neisseria meningitidis	2 .67
Campylobacter	78	54	Mumps	3 3.33
Cryptosporidiosis	29	26.67	Pertussis	33 42.67
Dengue Hemorrhagic Fever	1	0	Q Fever	2 1.67
Ehrlichiosis, Anaplasma phagocytophilum	2	1	Rabies, Animal	6 7
Ehrlichiosis, Ehrlichia chaffeensis	8	4.67	Salmonellosis	77 51.33
E. coli O157:H7	1	3.67	Shigellosis	33 9.33
E. coli shiga toxin + (not serogrouped)	3	5.67	Spotted Fever Rickettsiosis (RMSF)	38 25.67
E. coli shiga toxin + (serogroup non-0157)	3	3	Streptococcal Disease, invasive; Group A	2 2
Giardiasis	28	27.67	Streptococcus pneumoniae, invasive	3 3
Haemophilus influenzae, invasive	4	2	Transmissible Spongiform Enceph (TSE/CJD)	2 3
Hepatitis A	42	22.67	Tularemia	2 3.33
Hepatitis B, acute	4	9	Varicella	33 35.67
Hepatitis B, chronic	4	39.67	West Nile, encephalitis/meningitis	1 5
Hepatitis C virus, chronic	160	173.67	West Nile, non-neurological	26 23.67
Hepatitis E; acute	1	0		

\* Reported cases include Case Classifications Confirmed, Probable, Suspect, & Not a Case.

\*\* Cases only include numbers from June 2009.

## INVESTIGATION OF POTENTIAL RABIES WHILE ATTENDING A CAMP, BARTON COUNTY

On June 20, 2010, the Kansas Department of Health and Environment Bureau of Surveillance and Epidemiology (KDHE-BSE) was notified of a potential exposure to bats among people attending a camp (Camp A) at the Camp Aldrich Conference Center, 245 NE 30<sup>th</sup> Road, Great Bend, KS 67530 on June 19<sup>th</sup>. The initial report indicated that seven adults awoke to bats in the Sun-A-Risen cabin on Sunday, June 20<sup>th</sup>. On June 21<sup>st</sup>, an administrator from Camp A contacted KDHE-BSE regarding a possible additional exposure to bats among a second group of adult chaperones. On the night of June 20<sup>th</sup>, when the lights were turned off for bedtime in Pleasant View cabin six adult chaperones saw bats flying around the cabin. The children that were staying in the cabin were evacuated and moved to another cabin without bats. The six adult chaperones had also slept in Pleasant View cabin on the night of June 19<sup>th</sup>.

Six cabins are available from April 1<sup>st</sup> - October 31<sup>st</sup> each year. The cabins are enclosed and have central air. The capacity of each cabin differs, but can hold a range of 16 to 40 people. Contracts obtained from the camping facility indicated that 14 camps had taken place at the facility since April 2010, and of those, four camps

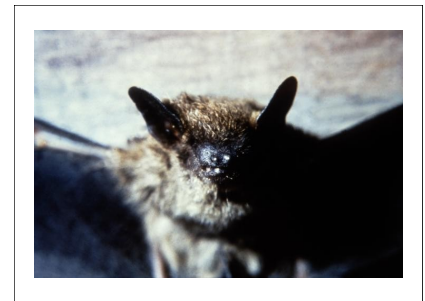
(Camp A, B, C, and D) had overnight stays at the facility.

In response to this report, an investigation was initiated by KDHE-BSE and the Barton County Health Department (BCHD) staff to assess potential rabies exposure in camp attendees and to identify any additional camps with potential exposure to bats.

A paper-based risk assessment form was developed and administered to people who stayed in the implicated cabins to obtain additional information regarding potential exposure. The information collected was used to make recommendations for PEP.

An inspection of the camp facility was conducted by World Pest Control on June 20<sup>th</sup>. Bat droppings were observed on some of the bunks as well as outside of cabins Pleasant View and Sun-A-Risen. No bats were seen in the cabins during the inspection. Recommendations were made on how to exclude bats from the cabins and a follow-up appointment was schedule to ensure that all bat-entry points have been sealed.

In total, 88 males from Camp A and D were recommended to start PEP. Ages ranged from 7-69 years of age with a median of 10 years of age. A total of four individuals did not report age. Three individuals refused



Caption describing picture or graphic.

PEP. All attendees of Camp A have completed rabies post-exposure prophylaxis. KDHE BSE recommends Local Health Departments identify a point-of-contact for each camp facility in their county and provide information on reporting procedures for outbreaks and reportable diseases. In addition, provide information regarding rabies prevention, specifically how to avoid exposures to wild animals and bats. Bat education should be a routine part of a camp safety briefing to include information about bat avoidance, reporting bats in facilities and what to do if campers come into direct contact with a bat.

- J. DeMent

## WORLD RABIES DAY: RABIES PREVENTION STARTS AT HOME

The world is again joining together on September 28<sup>th</sup> to raise awareness and understanding about the importance of rabies prevention. Led by the Alliance for Rabies Control and supported by numerous human and animal health organizations worldwide, World Rabies Day is a unique campaign that brings together hundreds of thousands of people across the world to reinforce the message that rabies is a preventable



disease, yet kills 55,000 people needlessly each year, half of which are children under the age of 15. Since the inaugural campaign in 2007, World Rabies Day events have been

held in 125 countries; educating 100 million people and vaccinating 3 million dogs.

We invite you to join us by planning a World Rabies Day event in your community! Ideas include submitting an article to your local paper, coordinating a rabies vaccination clinic or teaching animal bite prevention to a classroom of students.

More information about World Rabies Day can be found at <http://www.worldrabiesday.org/>

- I. Garrison, State Veterinarian

## CHANGE TO VACCINE SCHEDULE FOR RABIES POSTEXPOSURE PROPHYLAXIS

On March 19<sup>th</sup>, 2010, the Advisory Committee on Immunization Practices (ACIP) published new recommendations for the rabies post-exposure prophylaxis (PEP) vaccine schedule to prevent human rabies. For persons previously unvaccinated, FOUR vaccine doses in combination with rabies immune globulin (RIG) are recommended. The first dose of the 4-dose course should be administered as soon as possible after the exposure

(day 0). Additional doses then should be administered on days 3, 7, and 14 after the first vaccination. ACIP recommendations for the use of RIG remain the unchanged. For people who are immunocompromised, five doses (days 0, 3, 7, 14 and 28) are recommended.

Previously, ACIP recommended a 5-dose vaccine series for all exposures. The reduction in the number of doses was based in part on evidence from experi-

mental animal work, clinical studies, rabies virus pathogenesis data, and epidemiologic surveillance. These studies indicated that RIG plus four doses of vaccine confer adequate immune responses and that a fifth dose does not contribute to a more favorable outcome.

The complete report can be viewed here; <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5902a1.htm>

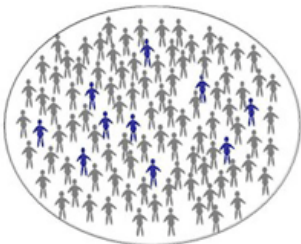
### RABIES POST-EXPOSURE PROPHYLAXIS (PEP) SCHEDULE UNITED STATES, 2010

Vaccine Status	Intervention	Regimen*
Not previously vaccinated	Wound Cleansing	All PEP should begin with immediate thorough cleansing of all wounds with soap and water. If available, a virucidal agent (e.g., povidine-iodine solution) should be used to irrigate the wounds.
	Human rabies immune globulin (HRIG)	Administer 20 IU/kg body weight. If anatomically feasible, the full dose should be infiltrated around and into the wound(s), and any remaining volume should be administered at an anatomical site (intramuscular [IM]†) distant from vaccine administration. Also, HRIG should not be administered in the same syringe as vaccine. Because RIG might partially suppress active production of rabies virus antibody, no more than the recommended dose should be administered.
	Vaccine	Human diploid cell vaccine (HDCV) or purified chick embryo cell vaccine (PCECV) 1.0 mL, IM (deltoid area†), 1 each on days 0§,3,7 and 14.¶
Previously vaccinated**	Wound Cleansing	All PEP should begin with immediate thorough cleansing of all wounds with soap and water. If available, a virucidal agent such as povidine-iodine solution should be used to irrigate the wounds.
	Human rabies immune globulin (HRIG)	HRIG should not be administered.
	Vaccine	HDCV or PCECV 1.0 mL, IM (deltoid area†), 1 each on days 0§and 3.

\* These regimens are applicable for persons in all age groups, including children.  
 † The deltoid area is the only acceptable site of vaccination for adults and older children. For younger children, the outer aspect of the thigh may be used. Vaccine should never be administered in the gluteal area.  
 § Day 0 is the day dose 1 of vaccine is administered.  
 ¶ For persons with immunosuppression, rabies PEP should be administered using all 5 doses of vaccine on days 0,3,7,14 and 28.  
 \*\*Any person with a history of pre-exposure vaccination with HDCV, PCECV, or rabies vaccine adsorbed (RVA); prior PEP with HDCV, PCECV; or previous vaccination with any other type of rabies vaccine and a documented history of antibody response to the prior vaccination.

# KS-EDSS DATA QUALITY INDICATORS

Please visit us at:  
[www.kdheks.gov/epi](http://www.kdheks.gov/epi)



**B**SE has implemented a set of monthly quality indicators to encourage data quality improvement in KS-EDSS. A table of the previous month's statewide percentages will be included in this newsletter each month. A separate breakdown of data completeness will be provided directly to individual county administrators at both the regional and county levels. The percentage complete column represents the frequency of completion of the corresponding data field in KS-EDSS. H1N1 cases are not included, as these cases do not require investigation at the county level.

In July, the percentage complete declined or remained the same for almost every single indicator from June to July, with only 'Address Street' and 'City' seeing an increase.

In August, the field completion continued to decline, almost across the board. The most dramatic drops in percentage complete were seen for 'Died', 'Hospitalized', and 'Onset Date' fields.

\*Calculations do not include Hepatitis B, chronic Hepatitis C, chronic.  
 \*\* Out-of-state cases not included in this calculation.

# Animal rabies not included in this calculation.

† Unknown considered incomplete.

†† The default setting of this field must be updated in KS-EDSS before frequency can be properly calculated.

## JULY 2010

KS-EDSS Indicator	Percentage
Address Street	81% **, #
Address City	97% **
Address County	99.71% **
Address Zip	90% **
Date of Birth	98% #
Died	36% †
Ethnicity	51%, †
Hospitalized	42%, #, †
Imported	n/a ††, #
Onset Date	36% *, #
Outbreak Associated	n/a ††
Race	58%, †
Sex	100%, †
Supplemental Form Complete	45%

## AUGUST 2010

KS-EDSS Indicator	Percentage
Address Street	76% **, #
Address City	97% **
Address County	99.41% **
Address Zip	92% **
Date of Birth	99% #
Died	29% †
Ethnicity	49%, †
Hospitalized	31%, #, †
Imported	n/a ††, #
Onset Date	30% *, #
Outbreak Associated	n/a ††
Race	54%, †
Sex	100%, †
Supplemental Form Complete	43%

### ***KDHE Mission:***

*To Protect the Health and Environment of all Kansans by Promoting Responsible Choices*

### ***Our Vision***

*Healthy Kansans living in safe and sustainable environments.*