



# EPI UPDATES

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## RABID BITS AND BYTES

BY DR. INGRID GARRISON



The Bureau of Epidemiology and Public Health Informatics (BEPHI) receives, on average, 400-450 calls per year on a variety of rabies-related questions. That is 10% of all calls (~450/4,500) we receive per year! This includes questions from local health departments, veterinarians, animal control officers, healthcare providers, and citizens. Rabid Bits and Bytes a new, regular feature in Epi Updates newsletter, will provide answers to many frequently ask questions as well as current rabies-related events in Kansas and around the globe.

I recently met with the Rabies Laboratory staff at Kansas State University. During our discussions they mentioned that several veterinarians have felt left out of the loop during a public health investigation of rabies positive animals. I have

heard similar stories from many of you who know nothing of a suspect rabid animal until we contact you for a follow-up investigation. It is critical that we work with our animal health partners, and our animal health partners work with us, to conduct investigations in a timely manner. I've listed a few tips to help you with your investigations;

**Call the veterinarian first.** They will be able to provide you with a wealth of information about the situation including the onset of clinical signs in the animal and vaccination status (including other household pets).

**Remember you must ask the veterinarian if they or their staff have been potentially exposed!** People previously immunized against rabies who have an exposure will still need rabies postexposure prophylaxis.

**Contact tracing must go back 10 days prior to clinical signs of rabies.** Dogs, cats and ferrets shed the rabies virus in their saliva up to 10 days prior to the onset of the first clinical sign. You must find all persons who could have had contact with the animal

during this time frame and assess them for potential rabies exposure.

**Assess potential contacts for non-bite exposures.** The rabies virus can penetrate intact mucous membranes (e.g. lining of the mouth, inside eyelids). An example of this type of exposure would be children letting a puppy lick the inside of their mouth.

BEPHI staff are here to provide assistance and support 24 hours a day, seven days a week. Call 1-877-427-7317 for immediate assistance for any rabies-related questions. Answers too many questions can also be found in the Rabies Disease Investigation Guidelines ([http://www.kdheks.gov/epi/disease\\_investigation\\_guidelines.htm](http://www.kdheks.gov/epi/disease_investigation_guidelines.htm)).

We hope you enjoy this new feature of the newsletter. Submit ideas or comments for future Rabid Bits and Bytes to Dr. Ingrid Garrison at [igarrison@kdheks.gov](mailto:igarrison@kdheks.gov).

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## CALENDAR OF UPCOMING EVENTS:



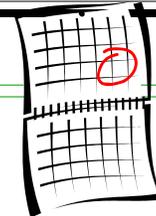
### KS-EDSS User Group

**When:** Thursday, March 31, 2011

**Time:** 9:00 a.m. - 10 a.m.

**Where:** CSOB, Sunflower Conference Room

For more details please contact Susan Dickman at 785-296-7732 or [sdickman@kdheks.gov](mailto:sdickman@kdheks.gov)



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

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

# KDHE Announces the 2011 "Fight the Bite" Poster Contest



The 2009 sixth grade national winner Richard Schleicher's drawing.

The Kansas Department of Health and Environment (KDHE) has announced the deadline of April 18 for the 2011 Fight the Bite Poster Contest, which is open to all fifth and sixth graders in the U.S. The contest encourages students to use art to show the ways they can protect themselves and their families from the diseases spread by mosquitoes, ticks and fleas by using repellent while outdoors.

Two winners from each state – one fifth grader and one sixth grader – will receive a \$50 check and award certificate. The national grand prize winners – one from each grade – will receive a \$1,000 check and award certificate. The 2010 Kansas fifth grade winner was Brianna Hoffman of Wamego and the sixth grade winner was Danielle Gallardo of Stockton. In 2009, then sixth grade na-

tional winner was Richard Schleicher of Stockton.

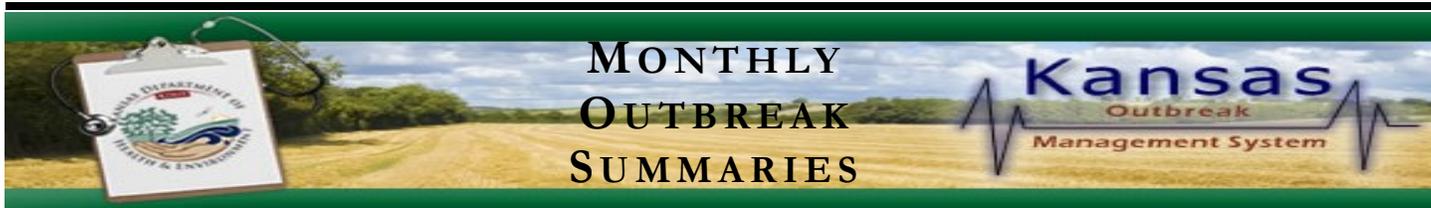
"This contest helps children learn about protecting themselves and their families from insect bites while creating their posters," said Dr. Robert Moser, Secretary of KDHE. "Kansas was proud to be the home of the sixth grade Grand Prize winner in 2009 and we look forward to this year's entries."

People can reduce their risk of mosquito and tick-borne diseases by taking the following precautions:

- Use insect repellent containing DEET or picaridin on skin. Follow label directions.
- Wear protective clothing when practical (long sleeves and pants). Clothing should be light-colored to make ticks more visible. When hiking, wear a long-sleeved shirt tucked into pants, long pants tucked into high socks and over-the-ankle shoes to keep ticks out.

- Empty standing water from tarps, old tires, buckets and other places where rainwater is trapped. Use larvicide in low-lying areas where water cannot be removed. Refresh water for bird baths, pet bowls and wading pools at least every three days.
- Limit outdoor activities at dawn and dusk when mosquitoes are most active.
- Regularly mow lawns and cut brush. Ticks like to hide in overgrown, shady areas.
- When hiking, walk in the middle of trails, away from tall grass and bushes.
- Check yourself every eight hours for ticks when outside for extended periods of time. Promptly remove a tick if one is found. If you find a tick, grasp the tick with tweezers as close to the skin as possible and slowly pull it straight out. Do not crush or puncture the tick and try to avoid touching the tick with your bare hands. Thoroughly disinfect the bite area and wash your hands immediately after removal.

The contest is sponsored by the Centers for Disease Control and Prevention (CDC) and the DEET Education Program. For contest rules and past winning entries, visit [www.fightthebitecontest.org](http://www.fightthebitecontest.org). The DEET Education Program ([www.deetonline.org](http://www.deetonline.org)), which operates under the auspices of the Consumer Specialty Products Association, is sponsored by Clariant Corp., McLaughlin Gormley King Co., S.C. Johnson & Son Inc., 3M Company and Vertellus Health and Specialties Inc.



**Reno County Repertory Illness—**

On February 7, 2011, the Reno County Health Department (RCHD) was notified of a possible outbreak of respiratory illness among residents and staff of a Long-Term Care Facility (LTCF) in Reno County. An outbreak investigation was initiated by the Kansas Department of Health and Environment (KDHE) and RCHD. The purpose of the investigation was to quantify and characterize the illnesses, determine the cause of illness, and to prevent additional cases.

A case was defined as an individual who resided or worked at the LTCF and became ill with a fever and cough, or was hospitalized with a cough, between

January 20, 2011 and February 6, 2011 – 42 residents and 16 staff met the case definition. The most frequently reported symptoms were cough (n=58), fever (n=56), poor appetite (n=37), myalgia (n=38), shortness of breath (n=26), and crackles (n=24). Laboratory tests conducted at a local hospital and KDHE were unable to confirm the cause of illness. No additional cases were identified after RCHD and KDHE began their investigation, which precluded additional testing.— D. N.

**Rawlins County Norovirus -** On February 3, Rawlins County Health Department (RCHD) was alerted to a potential outbreak of gastrointestinal illness at a long term care facility. The investigation revealed 35 cases of

vomiting and/or diarrhea among residents and staff. Three stool specimens were obtained and two tested positive for norovirus. The RCHD worked with the facility to ensure proper cleaning and control methods were being utilized, which did interrupt the transmission of the disease. – M.E.V.

**Douglas County Bordetella Pertussis—**On February 17, 2011, a child testing positive for *Bordetella pertussis* was reported to the Douglas County Health Department (DCHD). After conducting a case investigation, five additional cases were identified. The additional cases ranged from 12 to 46 years of age; three had no history of pertussis vaccination. DCHD has responded by provid-

ing treatment and prevention recommendations to the families of the ill children, families of other children in the affected day cares and area physicians. Other Douglas County day cares have been notified of the cases and the exclusion policies for unvaccinated, exposed children. Surveillance for additional cases is ongoing. D.N. & M.S.

**For reports of recently conducted outbreak investigations, please visit our website at <http://www.kdheks.gov/epi/outbreaks.htm> report an outbreak call the Epi Hotline at 1-877-427-7317**

**SURFACES, BUGS, AND GERMS, OH MY!**

**B**acteria and virus have been around forever. One of the reasons for their continued presence is their ability to survive outside a human body. Bacteria and viruses can survive on environmental surfaces for extended periods of time. In a health care setting this is an issue to contend with. The longer a pathogen (germ) can survive on a surface, the greater the chances of it becoming a source of infection to a patient or health care worker.

Persistence of dry inanimate objects

**Bacteria**

Pertussis	3-5 days
<i>Campylobacter jejuni</i>	6 days
<i>Clostridium difficile</i>	5 months
<i>E. Coli</i>	16 months
Enterococcus spp	
including VRE, VSE	5 dys —4 mos
<i>Neisseria gonorrhoeae</i>	1—3 days

Klebsiella spp	30 months
Tuberculosis (TB)	1 dys —4 mos
<i>Pseudomonas aeruginosa</i>	6hrs—16 mos (5 weeks on dry floor)
Salmonella spp	1 day
<i>Serratia marcescens</i>	3 dys —6.5 mos
Shigella spp	2dys —5 mos
<i>Staph aureus</i>	7dys—7 mos
<i>Strep pneumoniae</i>	1—20 days
<i>Stepotococcus pyogenes</i>	3dys—6.5 mos

**Fungi**

<i>Candida albicans</i>	1—120 days
<i>Candida parapsilosis</i>	14 days

**Viruses**

Adenovirus	7 days—3 mos
SARS	72-96 hours
Coxsackie virus	>2 weeks
Hepatitis A virus	2 hrs—60 dys
Hepatitis B virus	> 1 week
Herpes 1 and 2	4.5 hrs—8 wks

Influenza virus	1 –2 days
Papillomavirus 16	> 7 days
Parvovirus	> 1 year
Poliovirus type 1	4 hours — < 8 days
Poliovirus type 2	1 day—8 weeks
RSV	≥ 6 hours
Rhinovirus	2 hours—7 days
Rotavirus	6—60 days

Compiled by Yolanda Ballam, BS, CIC  
Children’s City Hospital, Kansas City

Reference: Kramer a, Schwebke I, Kampf G. BMC Infectious Diseases 3006, 6:30



## ENTERIC PILOT PROJECT ROLL-OUT

Sheri Anderson and Jamie DeMent have spent most of March traveling around the state of Kansas conducting training on the new enteric supplemental forms for the Enteric Pilot Project that will focus on the following diseases: *Cryptosporidium*, *Giardia*, *Salmonella*, and Shiga-toxin *E. coli* (STEC).

Originally, BEPHI intended to enroll 10–12 sites to participate in the pilot project. However, due to an overwhelming positive response, a total of 31 counties are enrolled. The objectives of the pilot project are to increase the completeness of the supplemental data questionnaire, improve the quality of data that is collected, and increase the number of clusters and out-

breaks detected. Participating pilot project counties are asked to provide feedback on the questionnaires that have been developed, and on April 1, 2011 start using the new questionnaires to investigate cases of *Cryptosporidium*, *Giardia*, *Salmonella*, Shiga-toxin *E. coli*. The following counties have been enrolled in the study and BEPHI would like to recognize them: Atchison, Barton, Brown, Butler, Cloud, Cowley, Crawford, Chautauqua, Dickinson, Douglas, Edwards, Ford, Franklin, Harvey, Jackson, Jefferson, Jewell, Johnson, Leavenworth, McPherson, Mitchell, Nemaha, Ottawa, Pawnee, Pratt, Reno, Saline, Sedgwick, Seward, Shawnee, and Wyandotte.

At the conclusion of the pilot project the data will be analyzed and feedback will be provided to the project sites. Future plans include revising other food-borne/waterborne disease supplemental forms and incorporating the forms into the electronic disease surveillance system.— J. Dement

*“Due to overwhelming positive response, a total of 31 counties are enrolled.”*

**Cryptosporidium Supplemental Reporting Form**

EDSS Number  Interviewer Name:

Number of Call Attempts:  Follow-Up Status:  Interviewed  Lost to Follow-Up\* \* At least three attempts at different times of the day should be made before the lost to follow-up is selected

Date of Interview (must enter MMDD/YYYY)

Respondent was:  Self  Parent  Spouse  Other Specify:

County:  Sex:  Male  Female Age:

Birth Month (must enter 1-12)  Birth Day (must enter 1-31)  Birth Year (YYYY)

Hispanic/Latino Origin:  Yes  No  Unknown

How would you describe your race?  White  Black/African American  American Indian/Alaska Native  Asian  Native Hawaiian/Other Pacific Islander  Other  Unknown

Are you pregnant?  Do you have an underlying immunodeficiency?

Occupation

Check all that apply:  Child  Student  Volunteer  Unemployed  Retired

Is this case a:

Food handler? <input type="text"/>	Facility Name <input type="text"/>
Health care worker? <input type="text"/>	Address <input type="text"/>
Group living? <input type="text"/>	Phone Number <input type="text"/>
Day care attendee? <input type="text"/>	Dates worked or Attended/Notes <input type="text"/>
Day care worker? <input type="text"/>	
School attendee? <input type="text"/>	
School employee? <input type="text"/>	

Example of the Cryptosporidium form that will be used in the Pilot Project.

Breakdown of the 501 Cases* in KS-EDSS by Disease	February 2011	Average 08-10	
Animal Bite, Potential Rabies Exposure	2	1	
Calicivirus/Norwalk-like virus (norovirus)	43	10	
Campylobacter Infection (Campylobacter spp.)	30	16	
Coccidioidomycosis	1	0	
Cryptosporidiosis (Cryptosporidium parvum)	7	7	
Dengue	1	0	
Ehrlichiosis, Ehrlichia chaffeensis	1	0	
Enterohemorrhagic Escherichia coli shiga toxin positive (not serogrouped)	1	2	
Enterohemorrhagic Escherichia coli shiga toxin positive (serogroup non-0157)	2	0	
Foodborne Illness	4	2	
Giardiasis (Giardia lamblia)	10	13	
Haemophilus influenzae, invasive	1	3	
Hepatitis A	31	19	
Hepatitis B, acute	6	8	
Hepatitis B, chronic	28	42	
Hepatitis C virus, chronic	136	159	
Legionellosis	1	3	
Lyme Disease (Borrelia burgdorferi)	4	12	
Measles (Rubeola)	1	2	
Meningitis, other bacterial	2	2	
Mumps	5	10	
Outbreak Case - Unknown Etiology	31	7	
Pertussis (Bordetella pertussis)(Whooping cough)	54	41	
Psittacosis (Chlamydia psittaci) (Ornithosis)	1	0	
Rabies, Animal	1	7	
Salmonellosis (Salmonella spp.)	12	17	
Shigellosis (Shigella spp.)	4	11	
Streptococcal Disease, Invasive, Group A (Streptococcus pyogenes)	8	9	
Streptococcus pneumoniae, invasive	11	11	
Transmissible Spongiform Enceph (TSE / CJD)	2	2	
Varicella (Chickenpox)	42	101	

*\* Cases reported include cases with the case classifications of Confirmed, Probable, Suspect, and Not a Case.*

# KS-EDSS DATA QUALITY INDICATORS

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



**B** EPHI has implemented a set of monthly quality indicators to encourage data quality improvement in KS-EDSS. A table of the previous month's state-wide percentages will be included in this newsletter each month. Eventually, 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. The indicator for 'Outbreak Associated' has been removed from the list of indicators for 2011. Fields in bold green have improved since the previous month. Frequency of completion has declined in italic brown fields. All other fields in have not changed since the previous month.

- V.B.

\*Calculations do not include Hep B, chronic Hep C, chronic.

\*\* Out-of-state cases not included in this calculation.

# Animal rabies not included in this calculation.

† Unknown considered incomplete.

## FEBRUARY 2011

KS-EDSS Indicator	Percentage complete
<i>Address Street</i>	78% **, #
<i>Address City</i>	98% **
<i>Address County</i>	100% **
<b>Address Zip</b>	<b>93% **</b>
<i>Date of Birth</i>	94% #
<b>Died</b>	<b>46% †</b>
<i>Ethnicity</i>	53%, †
<b>Hospitalized</b>	<b>47%, #, †</b>
<i>Imported</i>	33%
<i>Onset Date</i>	44% *, #
<i>Race</i>	58%, †
<i>Sex</i>	100%, †
<i>Supplemental Form Complete</i>	42%

### ***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.*