



EPI UPDATES

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RABID BITS AND BYTES

BY DR. INGRID GARRISON



The Rabies Laboratory at Kansas State University is interested in collecting data on dogs and cats that are not current on their rabies vaccination and have been potentially exposed to rabies. The current recommendation for these animals is euthanasia or quarantine for six months. The laboratory is interested

in generating and analyzing rabies titers at the time of the potential exposure to rabies and following a rabies booster vaccination. A serum titer at the time of the vaccination and again seven to 10 days later could help to document an anamnestic response in animals that are out of date on their vaccination.

These data could be useful in predicting risk of the development of rabies during a quarantine period and possible advancements in best practices which could contribute to policy considerations for the Compendium of Animal Rabies Prevention and Control.

If you have questions about this study or know of an animal that could be included, please contact Dr. Mike Moore at the KSU Rabies Laboratory at 785-532-4308.

Anamnestic: Denoting an enhanced reaction of the body's immune system to an antigen that is related to an antigen previously encountered.

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APRIL CALENDAR AND EVENTS:



There are no upcoming events at this time. Happy April! Stay Dry!



Have an upcoming event you would like included in the next issue?
Contact vbarnes@kdheks.gov with details.

ANIMAL RABIES VACCINATION SURVEY

By: Chelsea Stephens

My name is Chelsea Stephens and I am a Kansas State University Masters of Public Health student. I am working under Dr. Ingrid Garrison in the Bureau of Epidemiology and Public Health Informatics (BEPHI) for my practicum experience. We are assessing the need for a state-wide rabies vaccination requirement for all dogs and cats in Kansas. There are approximately 40 U.S. states that have a state-wide rabies vaccination law, but Kansas is currently not one of them. Vaccinating pets against rabies serves as an important barrier be-

tween people and wildlife.

We e-mailed a survey to all local health department administrators in Kansas on Monday, April 11, 2011. We want to collect county-level information on rabies vaccination laws and other rabies related information including licensing of animals, notification of suspect rabid animals, payment of rabies testing, and animal bite reporting. We would appreciate 100% participation from all health departments with this survey and would like to have it returned by no later than Monday, May 2, 2011.

In addition, we are evaluating occupational exposure to rabies in veterinarians and their staff. We will be contacting local health departments by phone to collect more information on potential exposures to rabies positive domestic animals in 2009 and 2010.

For any questions regarding the survey or occupational health project, please call Chelsea Stephens or Dr. Ingrid Garrison at 785-296-1059 or email at cstephens@kdheks.gov or igarrison@kdheks.gov



“There are approximately 40 U.S. states that have a state-wide rabies vaccination law, but Kansas is currently not one of them.”

Johnson County Norovirus

By Jamie DeMent

An outbreak of gastrointestinal illness among residents and staff members of a long term care facility (LTCF) in Johnson County was reported on March 3, 2011. In response to this report an investigation was initiated by staff at KDHE-BEPHI and the Johnson County Health Department. A total of 144 ill individuals were identified with 137 meeting the case definition. The case definition for this outbreak was being a staff or resident of the facility who experienced vomiting or diarrhea (3 or more loose stools in a 24 hour period) after the 24th of February (Figure 1). Two stool specimens were submitted and both were posi-

Sedgwick County Respiratory Illness By Daniel Neises

In March 10, 2011, the Sedgwick County Health Department (SCHD) was notified of a possible outbreak of respiratory illness among residents of a Long-Term Care Facility (LTCF) in Sedgwick County. An outbreak investigation was initiated by the Kansas Department of Health and Environment (KDHE) and SCHD. 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 at the LTCF and became ill with a fever or cough between March 7 and March 15, 2011 – 11 residents met the case definition. The most frequently reported symptoms were cough (n=8) and fever (n=8). Two cases were hospitalized; no deaths were reported. One case tested positive for influenza A by direct fluorescent antibody screening. Five additional cases were tested for influenza by Polymerase Chain Reaction (PCR) at the Kansas Health and Environmental Laboratories (KHEL). All but one were positive for influenza A/H3. Seven of the eleven ill residents had a documented influenza vaccination from fall 2010. The two hospitalized cases had not received an influenza vaccination.

While a yearly influenza vaccine is recommended for everyone, the Centers for Disease Control and Prevention (CDC) stresses the importance of flu shots among LTCF residents, as they are at higher risk of developing complications due to influenza. While the vaccine is more effective in preventing illness among younger populations compared to those older than age 65, studies have found the flu shot may be 50%-60% effective in preventing hospitalization among LTCF residents, and 80% effective in preventing flu-related death.

Figure 1. Onset Date of Symptoms of Cases of Johnson County LTCF Outbreak (N = 137)

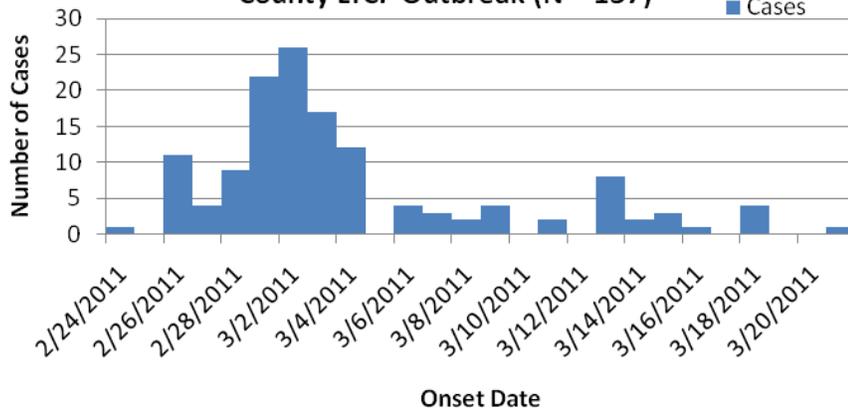


Table 1. Clinical Information of Cases

Symptom	Number with Symptoms	Percentage Reporting Symptom
Diarrhea	104/137	75.9 %
Vomiting	91/137	66.4 %
Nausea	43/137	31.4 %
Fever	17/137	12.4 %

Kansas Environmental Public Health Tracking Program Update

By Henri Menager

The Kansas Environmental Public Health Tracking Program (EPHTP) is wrapping up the planning phase and is nearing the beginning of its implementation phase. The EPHTP's goal is to track simultaneously a number of environmental exposures, health hazards and health outcomes for the purpose of identifying trends and patterns to guide interventions aimed at protecting the health of the public.

Under its current work plan, EPHTP will partner with various data owners and other stakeholders to track childhood lead poisoning, carbon monoxide poisoning, selected cancers, air quality, drinking water quality, myocardial infarction, asthma, birth defects, and reproductive and birth outcomes. The EPHTP's challenge is to bring all these data in one place and create from them standardized measures that can be shared with the public, decision makers and the scientific community. The EPHTP is also part of the National Environmental Public Health Tracking Network (EPHTN); which is a web-based, secure network of standardized electronic health and environment data. Participation in this network will allow comparison between Kansas and other states and provide access to best practices.

During its first two years, EPHTP has developed a network of stakeholders and data partners. A strong partnership was established with the Kansas Healthy Homes and Lead Hazard Prevention Program (HHLHPP), a partnership which allowed EPHTP to contribute lead screening data to the National EPHTN ahead of schedule. In return, HHLHPP is now enjoying a cleaner data set, more in-depth data analyses and increased efficiency. Lead poisoning is a serious health problem, especially in children. It can lead to a wide range of symptoms and consequences including head-

ache, anemia, behavioral problems, learning disabilities and even death. Recent analysis of the HHLHPP data by EPHTP staff has shown that while the incidence of elevated blood lead levels among children has been steadily declining during the past decade, it has not yet reached the Healthy People 2010 objective of eliminating elevated blood lead levels in children. There is no safe level of blood lead, but currently only blood lead levels at or above 10µg/dL in children are considered elevated and require public health action. In light of these findings, HHLHPP is redoubling its efforts to protect Kansas' children against the short and long-term impact of lead poisoning. With the help of EPHTP, HHLHPP will be able to better identify patterns and trends of lead poisoning in Kansas communities and design appropriate interventions to address them.

The EPHTP has also partnered with the Bureau of Air at KDHE in conducting assessments of blood lead levels in adults in Saline County and several other research projects are in the works. Contacts have been established between EPHTP and the Bureau of Water, the Bureau of Family Health and the Kansas Cancer Registry. The EPHTP is collaborating with several programs within the Bureau of Epidemiology and Public Health Informatics on a variety of projects, including one on data dissemination.

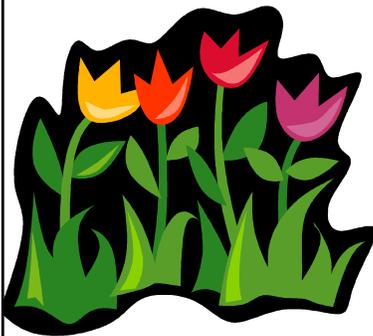
The EPHTP will soon enter its implementation phase with trepidation and confidence, thanks to the tremendous support it is enjoying from its data partners and stakeholders. In this new phase, the program will strive to provide a variety of integrated health and environment information to Kansas communities that they will in turn use to improve their health. Please stay tuned.

Breakdown of the 688 Cases* in KS-EDSS by Disease	March 2011	Average 08-10
Amebiasis (Entamoeba histolytica)	2	1
Animal Bite, Potential Rabies Exposure	1	1
Calicivirus/Norwalk-like virus (norovirus)	95	7
Campylobacter Infection (Campylobacter spp.)	50	26
Coccidioidomycosis	1	0
Cryptosporidiosis (Cryptosporidium parvum)	4	6
Dengue	1	0
Diphtheria (Corynebacterium diphtheriae)	1	0
Ehrlichiosis, Anaplasma phagocytophilum	1	0
Enterohemorrhagic Escherichia coli shiga toxin positive (not serogrouped)	1	1
Enterohemorrhagic Escherichia coli shiga toxin positive (serogroup non-0157)	5	1
Giardiasis (Giardia lamblia)	12	14
Haemophilus influenzae, invasive	3	2
Hepatitis A	40	18
Hepatitis B, acute	6	5
Hepatitis B, chronic	41	47
Hepatitis C virus, chronic	147	225
Influenza, A&B	11	0
Legionellosis	3	1
Lyme Disease (Borrelia burgdorferi)	10	6
Malaria (Plasmodium spp.)	1	0
Meningitis, other bacterial	4	1
Mumps	6	6
Outbreak Case - Unknown Etiology	41	0
Pertussis (Bordetella pertussis)(Whooping cough)	90	34
Rabies, Animal	5	12
Rubella (German measles)	5	1
Salmonellosis (Salmonella spp.)	17	22
Shigellosis (Shigella spp.)	6	14
Spotted Fever Rickettsiosis (RMSF)	4	4
Streptococcal Disease, Invasive, Group A (Streptococcus pyogenes)	2	6
Streptococcus pneumoniae, invasive	7	18
Transmissible Spongiform Enceph (TSE / CJD)	5	2
Varicella (Chickenpox)	55	79

** 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



There have been some improvements to the way BEPHI is reporting the quality indicator data this month. A column indicating how many applicable cases had the field complete has been included. The percentage complete column still represents the frequency of completion of the corresponding field in KS-EDSS. Additionally, the data from the 'Supplemental Form Complete' field is now broken down into "Complete" and "Partial" since it is possible for the form to have been started but not completed by the time the preliminary dataset is pulled for these indicators. BEPHI is finalizing the county and regional reports to email directly to local health department users and administration on a monthly basis as well. We hope to begin this in May. These reports will include both preliminary data from the previous month, and final numbers from two month's prior (e.g. preliminary data for April investigations and final data for March investigations will be sent out in May) so that local health department's can track their progress in data quality improvement.

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. - Virginia Barnes

*Calculations do not include Hep B, chronic or Hep C, chronic.
 ** Out-of-state cases not included in this calculation.
 # Animal rabies not included in this calculation.

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.

MARCH 2011		State's Total Case = 688
KS-EDSS Indicator	Field Completed:	Percent Complete:
Address Street	555	81% **, #
Address City	673	98% **
Address County	686	100% **
Address Zip	601	88% **
Date of Birth	683	99% #
Died	297	43% †
Ethnicity	368	53%, #, †
Hospitalized	290	42%, #, †
Imported	214	31%
Onset Date	253	50% *, #
Race	410	60%, #, †
Sex	688	100%, #, †
Supplemental Form Complete	211	34%
Supplemental Form Partial	47	7%