



# EPI UPDATES

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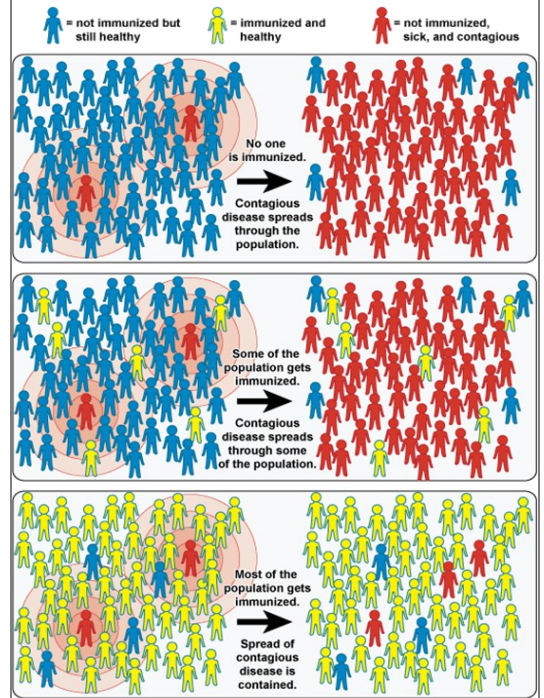
## Have you "Herd"? Vaccinations Protect Kansas Kids

Elizabeth Lawlor, MS

**Why are vaccines important?** In the United States, vaccines have reduced or eliminated many infectious diseases such as polio, measles, mumps, pertussis as well as many others that once routinely killed or sickened many infants, children, and adults. While most individuals have never had or even known anybody who has had these diseases, they are still present in the population and environment posing a risk especially to those who are not protected by vaccines. Vaccine-preventable diseases have many social and economic costs: sick children who have to miss daycare or school causing parents to lose time from work.<sup>1</sup> More importantly, these diseases can cause severe complications and death, particularly in children. Comparing pre-vaccine morbidity to the number of cases seen today for many vaccine preventable diseases, it is evident the dramatic effect vaccinations have had. Many of these diseases now occur only at low levels throughout the United States.<sup>2</sup>

**Why do we vaccinate?** The goal of immunizations is not solely to protect those who receive the vaccination, but also to protect vulnerable individuals in the population who are unable to receive immunizations such as pregnant

women, people who are undergoing chemotherapy, individuals who are immune compromised, and those too young to receive immunizations against these diseases. When a certain portion of the population is immunized, this helps prevent the spread of infectious diseases to



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## CALENDAR OF UPCOMING EVENTS:

### Epi-Trax Regional Training

**When:** December & January  
**Where:** There will be an onsite training held in each BT Region  
**Details:** Susan Dickman will be setting up these trainings over the next couple weeks through the Regional Coordinators. Susan can be contacted for more information at 785-296-7732 or [ksedssadmin@kdheks.gov](mailto:ksedssadmin@kdheks.gov)

### Epi-Trax Pilot User Group

**When:** December 7, 2011  
**Where:** CSOB Prairie Conference Room in Topeka or online webinar  
**Details:** Contact Susan Dickman at 785-296-7732 or [ksedssadmin@kdheks.gov](mailto:ksedssadmin@kdheks.gov) for more details



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

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

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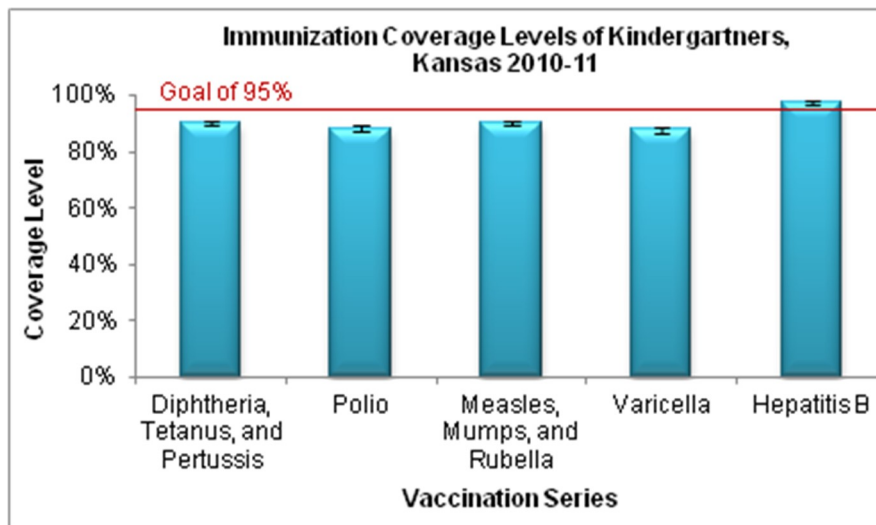
those who are vulnerable; this is considered “herd” immunity. When the level of immune individuals falls below the level needed for herd immunity disease is able to spread throughout the community.<sup>3</sup>

**What is the law?** All states require immunizations for entry into child care programs and school. In Kansas, the only legal reasons for a child not to be vaccinated is if there is a medical reason the child cannot be immunized (medical exemption) or if their religious denomination is opposed to vaccinations (religious exemption).<sup>4</sup>

**What does the Kansas Department of Health and Environment do?** The Kansas Department of Health and Environment’s (KDHE) Immunization program offers many services and programs to help keep Kansans safe from vaccine preventable diseases including the Vaccines For Children (VFC) Program which is the largest program they manage. Currently, Kansas has approximately 380 VFC providers across the state that provides vaccines to children who are uninsured or underinsured. This helps ensure that all children have a better chance of getting their recommended vaccinations on time. These vaccines protect babies, young children, and adolescents from 16 diseases.

Additionally, KDHE also measures how well we as a state are doing in vaccinating our children. In order to do that childcare providers and schools throughout Kansas are asked to submit vaccination records of enrolled children. In particular, KDHE measures immunization coverage levels of kindergartners at the time of entry into school. KDHE also looks at the kindergartner’s immunization records retrospectively, to assess their immunization levels when they were two years old.

**How well is Kansas doing in vaccinating children?** For the 2010-11 school year, all vaccinations required for school entry were above 87% coverage at school entry for kindergartners enrolled in Kansas schools. However, the only vaccine that met the Healthy People 2010 goal of at least 95% coverage was the vaccine that prevents hepatitis B.<sup>5</sup>



**What happens when we don’t vaccinate?** Due to unvaccinated and undervaccinated individuals, the United States has seen a rise in diseases that were previously present at low levels. In 2008, the United States had 140 measles cases, more than any year since 1996, and as of June 17, 2011 the United States has documented 156 cases of measles, of which 85% were unvaccinated or had undocumented vaccination status.<sup>6</sup> Additionally, there has been a rise in the number of pertussis cases throughout the United States, and Kansas has had several outbreaks in unvaccinated or undervaccinated populations.

**What if there were no vaccinations?** For each group of individuals born in a single year that are vaccinated with the routine childhood vaccines<sup>7</sup>:

- 42,000 lives are saved
- 20 million cases of disease are prevented
- 13.6 billion dollars in direct costs are saved
- 68.9 billion dollars in direct plus indirect (societal) costs are saved
- For each dollar invested in the childhood vaccinations, \$10.20 is saved

1. Centers for Disease Control and Prevention. What would happen if we Stopped Vaccinations? <http://www.cdc.gov/vaccines/vac-gen/whatifstop.htm>

2. Immunization Action Coalition. <http://www.immunize.org/catg.d/p4037.pdf>

3. National Institute of Allergy and Infectious Diseases (NIAID). <http://www.niaid.nih.gov/topics/pages/communityimmunity.aspx>

4. Kansas Statute Annotated (K.S.A) 72-5209. [http://www.kdheks.gov/immunize/download/Kansas\\_Statutes\\_Related\\_to\\_School\\_Immunizations.pdf](http://www.kdheks.gov/immunize/download/Kansas_Statutes_Related_to_School_Immunizations.pdf)

5. Kindergarten Immunization Coverage Survey, School Year 2010-11. [http://www.kdheks.gov/immunize/download/Kindergarten\\_2010-11.pdf](http://www.kdheks.gov/immunize/download/Kindergarten_2010-11.pdf)

6. Centers for Disease Control and Prevention Health Alert, June 22, 2011. <http://www.bt.cdc.gov/HAN/han00323.asp>

# Outbreak Summaries



**Sedgwick County Food Illness Outbreak** — On October 18, 2011, Sedgwick County Health Department (SCHD) began an outbreak investigation in response to a foodborne illness complaint. Two individuals reported vomiting and diarrhea within 36 hours after eating at a local deli. Further investigation revealed that all ill individuals lived in one household. The deli was inspected by the Kansas Department of Agriculture (KDA) identifying improper cleaning and sanitation; with no additional cases, the investigation was closed as not an outbreak.

**Trego County Food Illness Outbreak** — On October 25, 2011 Trego County Health Department (TCHD) was notified by a resident of Cowley County of gastrointestinal illness among individuals from different households that shared a meal at a sit-down restaurant in Wakeeney, KS. TCHD contacted the Kansas Department of Health and Environment (KDHE) to report the outbreak followed by a call to the KDA to request an inspection of the restaurant. Cowley County Health Department (CCHD) assisted with the collection of stool specimens that contained *Norovirus*. Twelve interviews were conducted by TCHD identifying six cases that experienced vomiting or diarrhea within 36 hours of eating at the restaurant. Three individuals experienced symptoms greater than 36 hours after eating at the

restaurant, most likely the result of secondary transmission via a person-to-person route. Two individuals experienced no symptoms. All individuals were members of an extended family attending the funeral in Bellville, Kansas with internment in Wakeeney. A common exposure to a restaurant in Belleville was not within the incubation period for *Norovirus* but the possibility existed that there were additional common exposures associated to the funeral that were not reported. The restaurant inspection in Wakeeney revealed no violations that would have contributed to the transmission of *Norovirus*. The route of transmission was undetermined.

**Lyon County Food Illness Outbreak** — On October 26, 2011 Lyon County Health Department (LCHD) began an outbreak investigation in response to a foodborne illness complaint. Four individuals from one family but two different households in Saline county became ill with gastrointestinal symptoms within 12 hours after eating at a Lyon county fast food restaurant. Because of the delayed reporting, no stool specimens were collected. The cases had no other common exposures outside of the restaurant, but there were no other cases associated to the restaurant. The restaurant was inspected by KDA. The cause of illness was not determined.

## Eleventh Listeriosis Case Associated with Jensen Farm Cantaloupe Outbreak

On November 10, 2011, the Kansas Department of Health and Environment (KDHE) was notified that an eleventh case of *listeriosis* matched the cluster associated with the Jensen Farm cantaloupes. The county that the case lived in was notified by KDHE on the same day. The current case count associated with this outbreak is 11 confirmed cases with three reported deaths. All cases were hospitalized. A twelfth case has been reported however the case could not be associated with this outbreak due to lack of testing. More information about this outbreak can be found at: <http://www.cdc.gov/listeria/outbreaks/cantaloupes-jensen-farms/index.html>

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

To report an outbreak call the Epi Hotline:  
1-877-427-7317

Breakdown of the 673 Cases* in KS-EDSS by Disease	Oct. 2011	Average 08-10
Animal Bite; Potential Rabies Exposure	6	1
Anthrax (Bacillus anthracis)	1	0
Babesiosis	3	0
Calicivirus/Norwalk-like virus (norovirus)	3	1
Campylobacter Infection (Campylobacter spp.)	69	43
Cryptosporidiosis (Cryptosporidium parvum)	16	9
Ehrlichiosis; Anaplasma phagocytophilum	0	1
Ehrlichiosis; Ehrlichia chaffeensis	4	1
Enterohemorrhagic Escherichia coli O157	4	5
Enterohemorrhagic Escherichia coli shiga toxin positive (not serogrouped)	4	3
Enterohemorrhagic Escherichia coli shiga toxin positive (serogroup non-0157)	9	3
Foodborne Illness	8	1
Giardiasis (Giardia lamblia)	13	13
Haemophilus influenzae; invasive	2	2
Hemolytic Uremic Syndrome, Post-diarrheal	2	1
Hepatitis A**	40	20
Hepatitis B; acute	8	7
Hepatitis B; chronic	54	44
Hepatitis C virus infection; past or present	178	176
Hepatitis D	1	0
Legionellosis	2	2
Listeriosis (Listeria monocytogenes)	5	0
Lyme Disease (Borrelia burgdorferi)	20	18

Breakdown of the 673 Cases* in KS-EDSS by Disease	Oct. 2011	Average 08-10
Measles (Rubeola)	2	2
Meningitis; other bacterial	1	2
Meningococcal Disease (Neisseria meningitidis)	1	1
Mumps	5	5
Non-Reportable Condition	3	0
Pertussis (Bordetella pertussis)(Whooping cough)	38	49
Q Fever (Coxiella burnetti); Acute	1	1
Q Fever (Coxiella burnetti); Chronic	1	0
Rabies; Animal	2	6
Rubella (German measles)	5	0
Salmonellosis (Salmonella spp.)	2	6
Shigellosis (Shigella spp.)	54	34
Spotted Fever Rickettsiosis (RMSF)	6	17
Streptococcal Disease; Invasive; Group A (Streptococcus pyogenes)	24	19
Streptococcus pneumoniae; invasive	3	1
Tetanus (Clostridium tetani)	10	3
Transmissible Spongiform Enceph (TSE / CJD)	1	0
Tularemia (Francisella tularensis)	3	2
Vancomycin-resistant staphylococcus aureus (VRSA)	1	1
Varicella (Chickenpox)	52	51
West Nile; non-neurological (includes WN Fever)	8	12

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

\*\* Increase in Hepatitis A, Total laboratory reports submitted to KDHE, not an increase in actual cases of Hepatitis A

## KS-EDSS DATA QUALITY INDICATORS

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



**K**DHE BEPHI emailed local health department users and administrators their county level quality indicator data this month. The Bioterrorism Regional Coordinators also received a copy of the regional breakdown of the quality indicators. At this time the report included the county’s preliminary data for the previous month. We hope to improve this process by adding a second report that will compare preliminary month data with final data. For example, for August local health departments would receive one report that includes preliminary numbers for July data and a second report with June preliminary completion data side-by-side with June final data (We will pull a June report August 1st with the assumption that all June cases should have the basic quality indicator fields completed at this point.) Please email [vbarnes@kdheks.gov](mailto:vbarnes@kdheks.gov) if you received an incorrect report, have questions, or believe you should have received a report but did not.

Fields in **bold blue** 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 Hepatitis B, chronic or Hepatitis C, chronic (denominator: 449 cases).

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

# Animal rabies not included in this calculation (den: 671 cases).

† Unknown considered incomplete.

†† Only diseases with supplemental forms 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.*

<b>NOVEMBER 2011</b>		State's Total Case = 673
KS-EDSS Indicator	Field Completed:	Percent Complete:
<i>Address Street</i>	<b>554</b>	<b>83% ** , #</b>
<i>Address City</i>	<b>661</b>	<b>99% **</b>
Address County	666	100% **
<i>Address Zip</i>	<b>663</b>	<b>95% **</b>
Date of Birth	671	100% #
<i>Died</i>	<b>362</b>	<b>54% †</b>
<i>Ethnicity</i>	<b>399</b>	<b>59%, #, †</b>
<i>Hospitalized</i>	<b>378</b>	<b>56%, #, †</b>
<i>Imported</i>	<b>228</b>	<b>34%</b>
<i>Onset Date</i>	<b>216</b>	<b>35% *, #</b>
<i>Race</i>	<b>439</b>	<b>65%, #, †</b>
Sex	673	100%, #, †
<i>Supplemental Form Complete</i>	<b>253</b>	<b>56% ††</b>
Supplemental Form Partial	186	41% ††