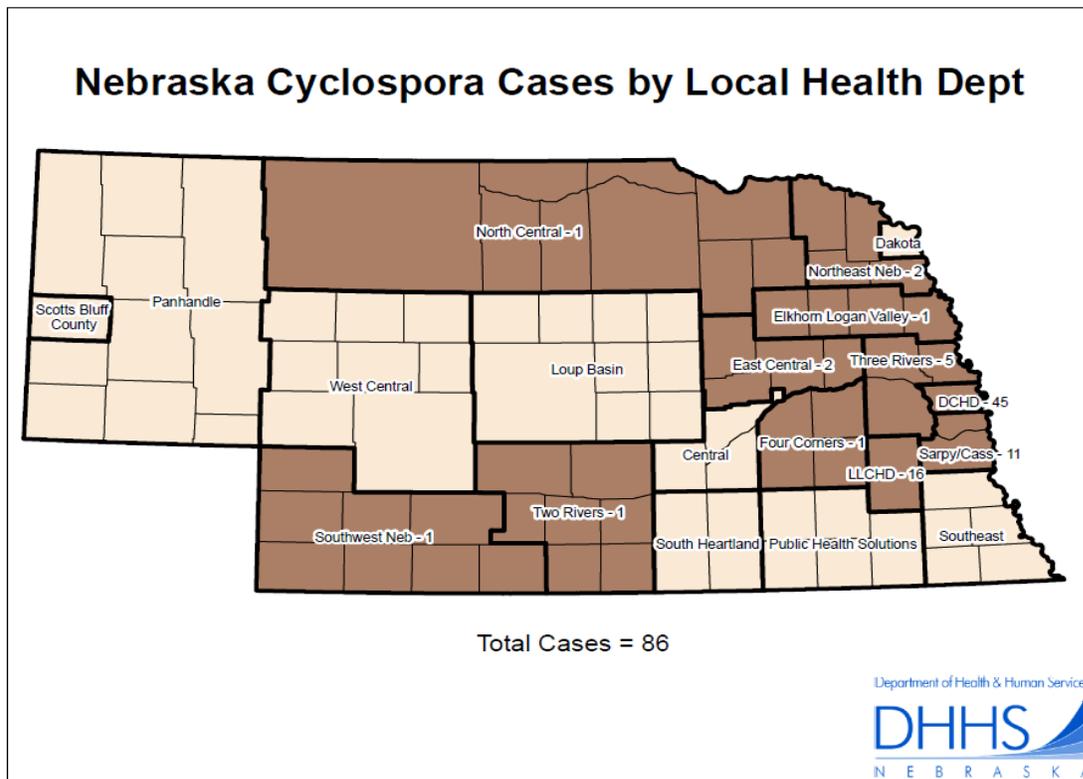


Chief Medical Officer’s Report to the State Board of Health September 2013

Nebraska Cyclospora Outbreak

The Nebraska Department of Health and Human Services along with local, state and federal partners continues to investigate a cyclospora outbreak. DHHS’ investigation identified prepackaged salad mix as the source of the outbreak which has sickened a total of 86 people in the state (as of September 10). Six Nebraskans were hospitalized and released.



Cyclospora is a rare parasite that causes a lengthy gastrointestinal illness. The first cases showed up in Nebraska in early July and in Iowa toward the end of June. DHHS’ investigation also showed the salad mix which included iceberg and romaine lettuce along with red cabbage and carrots came through national distribution channels. Nebraska public health officials believe the

bulk of the contaminated salad mix already worked its way through the system due to limited shelf life. Locally grown produce isn't a part of this outbreak.

DHHS, Iowa and local health departments passed their information to the U.S. Food and Drug Administration. The FDA then did a traceback to find out where salad mix items were grown, processed and distributed and to pinpoint the exact source of contamination. On August 2, the FDA announced its investigation linked the salad mix associated with Nebraska's and Iowa's cyclospora outbreaks to a non-domestic supplier. The FDA also said the salad mix was supplied to two national restaurant chains in both states. By mid-August, the supplier voluntarily suspended production of its salad mix. The FDA conducted a thorough environmental assessment at the supplier's processing facility and farms. The FDA found that the conditions and practices observed at the facilities were in accordance with food safety protocols. The supplier resumed production and shipment of its salad mix to the U.S. on Aug. 25.

This is a complex puzzle and thanks to the FDA's detective work, more pieces are coming together. But there's still more work to be done. The FDA's announcement addresses Nebraska cases that reported exposure at the two restaurants. But it doesn't address the cases where people said they had salad mix elsewhere. DHHS epidemiologists are still searching for answers.

DHHS shared information with the FDA and the FDA is acting on that information and information from other states. DHHS is looking to them to help provide explanation for Nebraska's other cases. Based on outbreaks in other states, this is bigger than Nebraska and a common connection hasn't been found at this time. DHHS epidemiologists can only take the outbreak investigation so far as a state. That's why they depend upon the expertise and resources of our federal partners.

DHHS continues to receive reports of cyclospora cases and will remain vigilant in investigating newly reported cases. The goal is to protect Nebraskans, pinpoint source of illness and make sure the risk is eliminated.

Fresh vegetables and fruit are usually associated with cyclospora outbreaks. People become sick when they consume food contaminated with the parasite. Washing fruits and vegetables is always recommended but it can be difficult to wash cyclospora off all types of produce.

Symptoms of cyclospora include diarrhea that can last weeks to months, fatigue, loss of appetite, weight loss, bloating, intestinal gas, stomach cramps, nausea, vomiting, muscle aches and low-grade fever.

People experiencing symptoms should see a physician for diagnosis and treatment.

Cyclospora cases have been rare in Nebraska with the exception of being part of a nationwide outbreak in the mid-90s linked to raspberries from Guatemala.

2012 – 0
2011 – 0
2010 – 0
2009 – 0
2008 – 1
2007 – 1

Nebraska ACE Study

Adverse childhood experiences (ACEs) can affect childhood development and risk factors for disease. Nebraska recently released the results of its ACE study. The study shows ACEs are common in Nebraska and are associated with multiple adverse health behaviors and outcomes like alcohol misuse, drug abuse, depression, tobacco use, obesity, heart disease, diabetes, etc.

Many factors can affect brain development in childhood. Investigators have started to link childhood maltreatment and its associated changes in brain development with the adoption of certain behavioral risk factors such as tobacco use and substance abuse.

Trauma alters a child's neurobiology which might increase risk for certain unhealthy behaviors. Impaired development and irritability of specific regions of the brain have been demonstrated in people affected by childhood trauma.

The Behavioral Risk Factor Surveillance Survey (BRFSS) is a nationwide annual survey coordinated by states in collaboration with the Centers for Disease Control and Prevention. Adults in each state are asked standardized questions about their health behaviors and practices. CDC developed an optional ACE module which Nebraska administered as part of its BRFSS survey in 2011. Epidemiologists investigated the prevalence of ACEs among Nebraskans and associations between ACEs, risk behaviors and health outcomes.

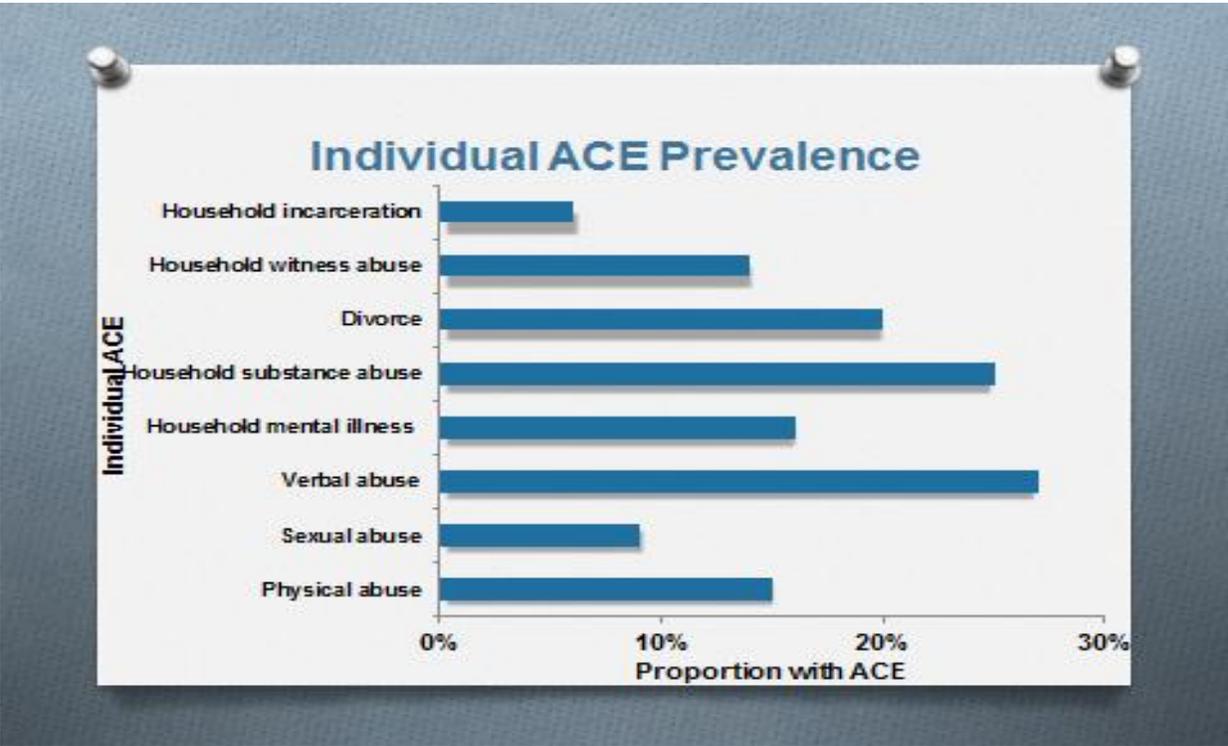
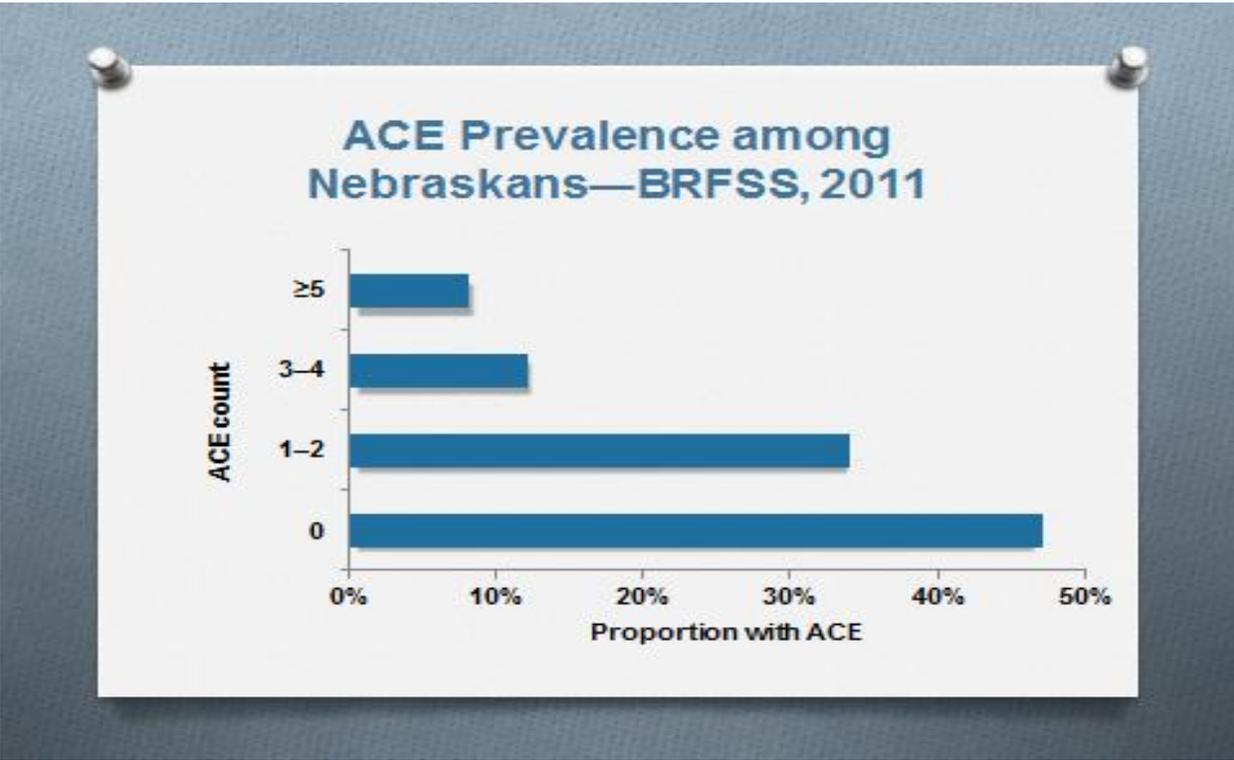
ACE exposures evaluated were: physical, sexual and verbal abuse, household mental illness, household substance abuse, witnessing household abuse, household incarceration and divorce. The total number of individual ACEs reported by each person was considered an ACE count.

Here are the 2011 results:

- 47% of Nebraskans had 0 ACEs
- 34% had 1 or 2 ACEs
- 12% had 3 or 4 ACEs
- 8% had 5 or more

Fifty-three percent of Nebraskans have at least one ACE.

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Nebraska data showed a strong correlation between the number of ACEs and a greater prevalence of preventable adverse health outcomes like alcohol misuse. Data showed a dose response relationship exists between increasing number of ACE exposures and increased risk of both alcohol misuse and depression. The study found similar correlations between ACEs and other outcomes as well.

Increasingly public health leadership around the country is appreciating the critical role a safe and healthy childhood plays in preventing unhealthy behaviors and adverse health outcomes in the future.

New Child Care Regulations

New regulations for Nebraska child care facilities went into effect on May 20. Among other provisions, now all licensed programs must:

- Have, follow, and share with parents the program’s policy on exclusion of children who are ill;
- Notify parents of children in attendance and children enrolled but not in attendance of outbreak of specific communicable diseases; and
- Follow all directives by the “health authority” in the event of a serious communicable disease outbreak. The health authority is the state or local health department.

If children are allowed to use swimming pool on premises of child care, the swimming pool must have a permit from the Division of Public Health.

A child care program must be “smoke free” unless it is in a residence. If it’s in a residence, smoking is prohibited anywhere indoors during the hours of operation when one or more children who are not occupants of the residence are present.

The child’s record filled out by parents must now include current health status of child and allergies, intolerances to foods, insect bites, or stings or other factors that may result in a medical reaction and clear instructions in the event of an exposure.

In all child care programs that serve infants and toddlers:

- All of the “safe sleep/SIDS prevention” requirements, including federally approved cribs, no toys in cribs, no bumper pads, blankets must be tucked under the mattress and reach no higher than chest of infant, “back to sleep” position unless contraindicated by infant’s health care practitioner, and training on safe sleep/SIDS prevention, and
- Required training on shaken baby, child abuse, abuse/neglect reporting.

For child care centers:

- Vehicles used to transport children must be “smoke free”; and
- Centers must have policies on staff immunization and exclusion of ill staff.

Electronic Death Registration

DHHS began collaborating with Nebraska physicians, funeral directors and county attorneys in 2006 with a goal of training 80 percent of funeral directors and medical certifiers on using the Electronic Death Registration System (EDRS) with the hope that 80 percent of death records would be filed electronically within a three-year period. The goal has taken longer than anticipated but in July of this year, funeral homes initiated over 80 percent of all death records through the EDRS with medical certifiers completing over 40 percent of the Cause of Death statements as fully electronic records. The current goal for medical certifiers is to improve from 40 percent to 80 percent.

There are 990 medical certifiers currently registered with Vital Record’s EDRS. Current legislation expanded who could medically certify death records, adding physician assistants and nurse practitioners as medical certifiers for completing death records.

A recent enhancement was made to the electronic system called fax attestation. It's designed for medical certifiers who infrequently do death records. Fax attestation assists medical certifiers in completing a paper death record and clinic staff is trained to enter the death information into the EDRS. Fax attestation for medical certifiers started in March 2012, and 154 certifiers have been registered to use the process so far.

Prevailing trends and requirements for hospitals and medical clinics to use electronic medical records have expanded and this emphasizes the need for electronic registration of death records. Nationally there is active exploration and advancement in having medical information extracted from the patient's electronic medical records to auto populate the death certificate for electronic registration to vital records offices.

Electronically registration of deaths continues to significantly transform the way death records are being registered. By using electronic registration, the numbers of queries back to medical certifiers for incomplete records has stopped and queries for medical clarification show a decline.

The electronic process saves physicians and funeral directors time in completing death records and reduces the time to file and issue death records to families of the decedents. The filing of electronic records assists the Social Security Administration in changing or correcting death benefits. Local, state and federal agency programs continue to rely on timely access to death data.

Meaningful Use Update

DHHS is expanding the scope of electronic data exchange of health information to strengthen current surveillance capabilities and improve the effective practice of public health in the state. As these projects progress, they will benefit the broad needs of public health across the state. Most importantly, the findings of such surveillance will be valuable to Nebraska communities by informing health care providers, facilities, and local public health officials regarding the local burden of disease events such as cardiovascular disease, identifying affected populations, severity of illness, and effectiveness of prevention programs or interventions.

DHHS is actively working with eligible professionals, eligible hospitals, and critical access hospitals on all public health related meaningful use objectives.

DHHS can receive Immunization records, electronic lab reporting, and emergency department and inpatient facility syndromic surveillance data. Currently all data is accepted in HL7 2.5.1 format via a secure transport method called Public Health Information Network Messaging System. When sending immunization data the facility can also use Simple Object Access Protocol Web Services for secure transport of the data.

DHHS is NOT accepting syndromic data from Eligible Professionals (outpatient/ambulatory) facilities at this time.

DHHS is currently working on the electronic exchange of cancer data. Data exchange specifications are being developed to support the exchange of cancer data with an anticipated completion date of 12/31/2013.

DHHS has developed an online application for facilities to complete when beginning the testing phase of data exchange. This application allows DHHS to initiate tracking of all data exchange projects – especially for meaningful use purposes.

One of the goals of this program is to develop a more comprehensive tracking tool that can be used to communicate with Medicaid on the progress of facilities wishing to attest to meaningful use stages 1 and/or 2. The Centers for Medicare and Medicaid Services and the Office of the National Coordinator have identified particular items public health needs to address when developing a tracking system. We will be focusing on public health's responsibilities in this process and developing a system to meet those needs.