

SUMMARY OF REPORTED OUTBREAKS WEST VIRGINIA 2002

In the state of West Virginia outbreaks and unusual occurrences of disease are required by law to be reported immediately to the local health department. In 2002, thirteen outbreaks were reported and are summarized in the table below.

Outbreak Number	Date of 1st Case	Date Reported	Date of Last Case	County	Setting	Source, Mode of Transmission	Disease	Cases
2002-1	2/25/02	2/28/02	3/8/02	Pocahontas	Correctional Center	Person to Person	Influenza A	57
2002-2	3/24/02	3/29/02	3/30/02	Ohio	Nursing Home	Person to Person	Norovirus	16
2002-3	5/26/02	7/16/02	8/5/02	Upshur	Community	Person to Person	Pertussis	16
2002-4	6/28/02	7/30/02	6/28/02	Braxton	School	Person to Person	Pertussis	2
2002-5	7/3/02	7/11/02	7/13/02	Hampshire	Camp	Person to Person	Gastroenteritis	69
2002-6	8/15/02	9/9/02	7/22/02	Monongalia	Workplace	Person to Person	Pertussis	2
2002-7	10/5/02	10/7/02	10/6/02	Upshur	Hotel	Chloramines from swimming pool	Chloramine toxicity	32
2002-8	10/8/02	10/8/02	11/7/02	Berkeley	School	Person to Person	Chicken Pox	41
2002-9	10/15/02	10/18/02	10/17/02	Doddridge	Community	Unknown	Bloody Diarrhea	7
2002-10	10/20/02	10/23/02	10/23/02	Cabell	Civic Arena	Unknown	Norovirus	29
2002-11	10/25/02	10/28/02	10/17/02	Marshall	School	Person to Person	Chicken Pox	20
2002-12	11/5/02	11/20/02	11/21/02	Ohio	School	Person to Person	Chicken Pox	23
2002-13	12/4/02	12/10/02	12/10/02	Taylor	Nursing Home	Person to Person	Norovirus	40

Outbreaks are investigated for many reasons, but the most important reasons are to identify the source of infection, determine the risk factors for infection, and to prevent or control the spread of disease. A brief summary of each 2002 outbreak follows.

2002-1

In February, an outbreak of influenza-like illness was reported from a correctional institution in Pocahontas County. Approximately 57 (27%) of 210 inmates reported symptoms that met the case definition for ILI (fever >100 F and cough or sore throat without another identified cause). Four inmates were cultured and all four were positive for influenza A at the Office of Laboratory Services. Records indicated that 52 inmates had received the influenza vaccine during the 2001-2002 season. An aggressive vaccination program was recommended by the Regional Epidemiologist for staff and inmates during the following season.

2002-2

In March, an outbreak of gastroenteritis was reported from a nursing home in Ohio County. Ten (71%) of 14 patients and six (43%) of 14 staff were affected. Illness characterized by acute onset of self-limited vomiting and diarrhea. Onsets were staggered over a period of about a week, strongly suggestive of person-to-person spread. Stool cultures were negative for bacterial pathogens, but positive for Norovirus at the CDC. The local health department made extensive recommendations on handwashing and other infection control measures, and the outbreak subsided.

2002-3, 2002-4, 2002-6

During 2002 (May, June, July and August) a series of Pertussis outbreaks were reported to the State Health Department from Upshur, Monongalia and Braxton Counties. The local health departments, in collaboration with the State Health Department investigated the cases. Multiple measures were taken to control disease including: health alerts for health care providers, collection of specimens for testing, vaccines for children who were not adequately immunized, prophylaxis of close contacts, treatment of cases with recommended antibiotics and exclusion of symptomatic persons from school/child care or workplace for the first 5 days of a full course of antimicrobial treatment.

In Upshur County, 18 persons reported symptoms that met the case definition for Pertussis (Cough lasting > 2weeks with one of the following: paroxysms of coughing, inspiratory "whoop," or post-tussive vomiting, without other apparent cause. Of these 18 cases, 10 (56%) were lab confirmed and 8 (44%) were epidemiologically linked to a laboratory confirmed case. In Monongalia County two persons reported symptoms that met the case definition for Pertussis. One patient was a direct contact of a laboratory confirmed case from Upshur County. Both cases were culture confirmed. In Braxton County, 2 persons reported symptoms that met the case definition for Pertussis. One case was laboratory confirmed and the other was epidemiologically linked to the laboratory confirmed case.

2002-5

In July, an outbreak of gastroenteritis was reported from a Scandinavian dance camp in Hampshire County. Sixty-four (47%) of 137 campers were affected. Onset of illness was characterized by acute, sudden onset of nausea, vomiting, diarrhea, dizziness, fatigue, weakness, extreme body aches with recovery within 24 hours. Four stool cultures were negative for all enteric bacteria such as E.Coli O157:H7, Salmonella, Shigella, and Campylobacter. The stool cultures also tested negative for Norwalk-like virus at the CDC. The local health department suggested the camp institute practice proper handwashing techniques, isolation of ill campers in their cabins, and other infection control measures to reduce

illness at the camp. The director of camp had initiated these control measures and the outbreak diminished.

2002-7

On October 7th, IDEP received a call from the Upshur County Health Department about a group of children who experienced illness during a birthday party at a hotel indoor swimming pool. Signs/symptoms included burning eyes, sore throat, cough, difficulty breathing, and rash. One child was hospitalized. Analysis of pool water several hours after the party showed that the chloramine level was elevated at ≥ 0.7 ppm (acceptable maximum 0.3 ppm). Symptoms of children were consistent with exposure to high levels of chloramines, the chemical product of chlorine and ammonia. Another pool party was held the previous day, and some attendees became ill, although symptoms were milder. 128 individuals were interviewed for a cohort study. A total of 32 individuals met the case definition; most recovered quickly. The pool was closed voluntarily until the LHD analyzed the water and declared it within legal limits.

2002-8, 2002-11, 2002-12

During October and November of 2002 a series of chickenpox outbreaks were reported in Berkeley, Marshall and Ohio Counties. All outbreaks were in elementary schools and affected only children. The local health department promptly investigated all cases/non-cases to determine the immunization status of the kids. Investigation revealed that previously vaccinated children had milder illness than those who were unvaccinated. Several measures were taken to prevent the spread and limit the disease. A letter was sent out to the parents from the Local health department advising them to vaccinate their children against chickenpox. A health alert was sent out to health care providers informing them about an increase in chickenpox cases in the community. The immunization program assured that vaccines were available at the providers' offices and local health department.

In Berkeley County, forty-one children had symptoms that met the clinical case definition of chicken pox (an illness with acute onset of diffuse (generalized) papulovesicular rash without other apparent cause). This number includes both physician-diagnosed and parent-reported cases. Of 397 students attending the school, 198 (50%) were unvaccinated, 83 (21%) were vaccinated and 116 (29%) had the disease in the past. In Marshall County, twenty children presented with symptoms that met the clinical case definition of chicken pox and in Ohio County, 23 children presented with symptoms that met the clinical case definition of chicken pox.

2002-9

Between October 15 and 17, 2002, there were 7 cases of bloody diarrhea in Doddridge County with one culture positive for E. coli O157:H7 and another positive for Giardia. All these individuals attended the local community festival and had consumed unpasteurized apple cider. Most cases were not tested appropriately for E. coli O157:H7. The initial working hypothesis was that apple cider was the source of illness. However, many people drank apple cider without getting ill and the apple cider was culture negative for E. coli O157:H7. A physician alert was sent out to all physicians in nearby counties. No conclusions can be drawn about the etiology or source of infection because of limitations in diagnostic work-up. IDEP made recommendations to educate health care providers about diagnosis and treatment, to educate laboratories to test stool cultures for E. Coli O157:H7.

2002-10

In October, an outbreak of gastroenteritis was reported at a wedding reception that took place at the Huntington Civic Arena. Twenty-nine (46%) out of 63 attendees were ill with an acute onset of vomiting and/or diarrhea. The mean duration of illness was a 61 hours and the mean incubation period of 32.5 hours. Viral cultures confirmed the etiology as Norovirus at the CDC. However, 2 different strains of Norovirus were discovered during testing. No source of infection was identified.

2002-13

In December, an outbreak of gastroenteritis was reported in a nursing home, with 26 (40%) of 65 patients ill with a clinical syndrome characterized by acute onset of vomiting and/or diarrhea. Duration of illness was a little over one day. Onset of illness was staggered over a period of 5 days, suggesting person-to-person spread. An additional 14 employees were ill, with onsets over a period of a week, and the first onset prior to the first identified case of illness in a patient. Recommendations were made to intensify infection control measures, including handwashing, and visitation was restricted by the nursing home. Viral cultures confirmed the etiology as Norwalk-like virus at the CDC.