

Epidemiology Report for Dallas County

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Communicable Diseases and Bioterrorism Preparedness Response Divisions

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November Reportable Disease Activity

A summary of reportable diseases for the month of November appears in Table 1. Reported cases for *Campylobacter* were statistically above reported monthly averages. All cases appear to be sporadic at this point, having no relation according to date of onset or geography. Reported Pertussis cases continue to be above average. Phase 3 clinical trials are currently being conducted for an adult Pertussis Vaccine, which would improve efforts of prevention.

continued on page 2

Influenza, 2004-2005

➤ Influenza surveillance, US

During week 2 (January 9-15, 2005), influenza activity overall continues to increase in the United States. Three hundred ninety (14.6%) specimens tested by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories were positive for influenza. The proportion of patient visits to sentinel providers for influenza-like illness (ILI) and the proportion of deaths attributed to pneumonia and influenza were above epidemic threshold values. Ten states and New York City reported widespread influenza activity, 14 states reported regional influenza activity, and 11 states reported local activity. Fifteen states, the District of Columbia, and Puerto Rico reported sporadic influenza activity.

WHO and NREVSS laboratories in the United States reported testing 2,672 specimens for influenza viruses, which 390 (14.6%) were positive. Of these 50 were influenza A (H3N2) viruses, 299 were influenza A viruses that were not subtyped, and 41 were influenza B viruses.

Since October 3, WHO and NREVSS laboratories have tested a total of 45,180 specimens for influenza viruses and 2,922 (6.5%) were positive. Among the 2,922 influenza virus isolates, 2,508 (85.8%) were influenza A viruses and 414 (14.2%) were influenza B

See "Flu" continued on page 4

INSIDE THIS ISSUE

- 1** November Reportable Disease Activity
- 1** Influenza, 2004-2005
- 6** Ciguatera Poisoning Outbreak
- 7** References
- 8** Contributors

Table 1: Reported case numbers of reportable diseases in Dallas County with percent change compared to last year

Condition	Frequency	(-) % change from Nov 2003
Acquired Immunodeficiency Syndrome	21	-41.6%
Amebiasis	7	40.0%
Animal Bite	31	287.5%
Aseptic meningitis	87	248.0%
Bacterial/other meningitis	20	81.8%
Brucellosis	1	+
Campylobacteriosis	42	2000.0%
Chlamydia	520	-29.4%
Cryptosporidiosis	1	-50.0%
Cyclosporiasis	1	+
Dengue Fever	1	+
Ecoli O157:H7	1	+
Gonorrhea	268	-27.2%
Hepatitis A	6	100.0%
Hepatitis B carrier	47	683.3%
Hepatitis C	8	300.0%
Human Immunodeficiency Virus Infection	51	-38.5%
Lead, child	27	285.7%
Legionellosis	1	0.0%
Listeriosis	1	+
Lyme disease	1	+
Malaria	2	+
Meningococcal disease	2	100.0%
Pertussis	69	6800.0%
Public Safety Worker exposures	39	875.0%
Rocky Mountain SF	1	+
Salmonellosis	12	20.0%
Shigellosis	17	240.0%
Streptococcal invasive disease	26	160.0%
Syphilis	68	-31.3%
Tuberculosis	26	13.0%
Varicella	62	-59.6%
West Nile	8	62.5%
Total	1467	

- + Indicates the change in percentage is undefined because the number of last year's cases was zero.
- The percentage change in the number of cases from November 2003 is not a reliable indicator of trends over time for many reasons. Long-term trends are only visible when many consecutive months of data are examined. Also, the cases included in the report reflect the date in which the case reports have been completed and not the dates of disease onset. Under the guidelines of the CDC and the state of Texas, new reporting methods should make comparative analysis of case numbers much more feasible in the upcoming year.

continued on page 3

The mortality data for the City of Dallas appears on Table 2. There were no statistically significant changes from the previous year's numbers for the month of November. These figures are taken from death certificates received from the City of Dallas Bureau of Vital Statistics from area hospitals. Since the receipt of death certificates are sometimes delayed for months, the actual monthly mortality data can be difficult to quantify.

Table 2: Mortality data for the city of Dallas compared to last year

Deaths	November 2004	November 2003
Mortality from all causes	958	703
Average weekly mortality from all causes	191.6	175.8
Deaths from pneumonia	51	47
Average weekly mortality from pneumonia	12.75	11.8
% of deaths from pneumonia	5.3%	6.7%
AIDS	18	6
Hepatitis B	2	2
Hepatitis C	9	6
Sepsis	5	1

viruses. Seven hundred eight (28.2%) of the 2,508 influenza A viruses have been sub-typed and 99.4% were H3N2 and 0.6% were H1N1 influenza A viruses. Figure 1 displays the national reporting surveillance of influenza isolates¹.

➤ **Influenza surveillance, Texas**

The state of Texas' reported flu activity for the week ending 01/05/2005 is classified as widespread. The widespread classification is used when there is increased: flu, flu-like illness, and laboratory confirmed isolates in at least half of a state's regions².

➤ **Surveillance, Dallas County**

Because of the vaccine shortage, Dallas County Health & Human Services has made a tremendous effort in distributing Influenza Vaccines to qualifying residents this year. As of January 2005, the health department, along with Children's Medical Center has distributed more than 20,000 vaccines. Additionally, unlike many other communities, Dallas County has managed to distribute nearly all of its allocated supply with no predicted surplus expected. We wish to thank all of the community supporters, health care providers, and officials who have assisted in vaccine distribution this year.

Influenza surveillance is conducted year-round in Dallas County through 4 different sources. These include confirmed cases from viral laboratories, hospitals, and eight physician offices (sentinel sites), as well as flu-like illness numbers from ten school districts throughout the county. The influenza season usually begins in November or December with increased sporadic cases and becomes widespread two to three weeks later. The entire flu season

characteristically peaks and tapers off within eight to twelve weeks. Although last year began unusually early (in October), this year has been a typical year so far. By tracking the trends of this disease, control measures can be instituted to protect the public, especially the most vulnerable populations such as children, the elderly, and individuals with chronic disease.

Influenza cases have continued to increase in the last week (Jan 22-Jan 28) in all parts of Dallas County (See Figure 2). Sentinel sites, viral laboratories, and hospitals have reported 197 confirmed cases of influenza so far this season and school districts are seeing increasing numbers of flu-like illness in their students and staff. Influenza A has been the predominant type seen this year (90%), but cases of Influenza B have been reported (10%) since the beginning of the season. So far the A/Fujian and B/Shanghai have been isolated in Texas, both of which are in this year's vaccine. Until last week, the demographics of confirmed flu cases have included 51% adults and 49% pediatric cases (under 18 years of age), although the pediatric cases last week rose to 70% of the reported cases. Dallas County will continue to monitor influenza to determine which populations are being affected and monitor for changes in subtypes which are not contained in this year's vaccine. ■

U.S. WHO/NREVSS Collaborating Laboratories Summary, 2004-05

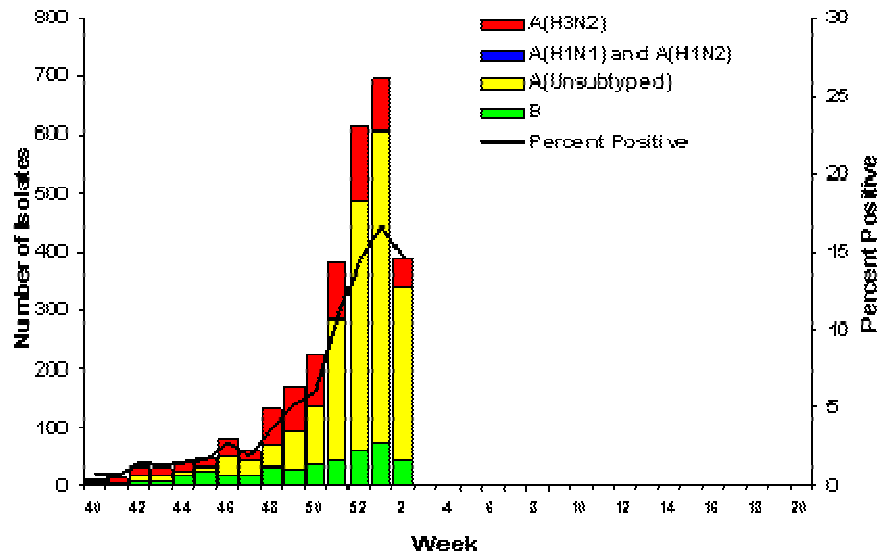


Figure 1: National report demonstrating an increase in positive influenza isolates

Flu Surveillance 2004-2005 Season

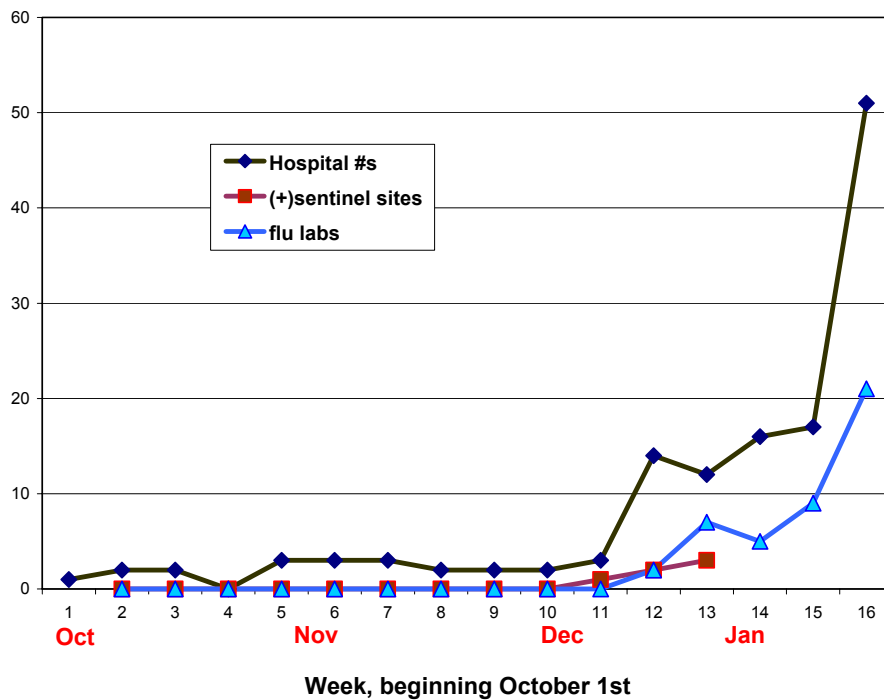
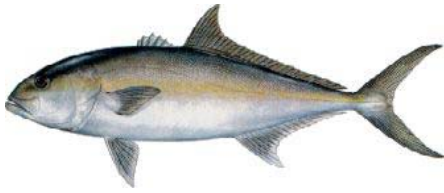


Figure 2: Reported influenza cases to Dallas County Health & Human Services for the 2004-2005 season

Ciguatera Poisoning in Dallas County



On 8/31/2004, Dallas County epidemiologists received a report from Texas State Health Services concerning the possibility of a ciguatera toxin producing an outbreak in the Dallas/Fort Worth Area. Ciguatera fish poisoning (or ciguatera) is an illness caused by eating fish that contain toxins produced by a marine microalgae called *Gambierdiscus toxicus*. Symptoms include: nausea, vomiting, and neurological symptoms which may progress from tingling of fingers or toes to intensified paresthesias, arthralgias, myalgias, and headaches. The unique presentation of “hot things feel cold and cold things feel hot” is often reported. Cardiovascular signs include arrhythmia, bradycardia or tachycardia, and reduced blood pressure. Marine finfish most

commonly implicated in ciguatera fish poisoning include the groupers, barracudas, snappers, jacks, mackerel, and triggerfish. Many other species of warm-water fishes harbor ciguatera toxins. The occurrence of toxic fish is sporadic, and not all fish of a given species or from a given locality will be toxic³.

The affected people in the Dallas/Fort Worth area were all reported to have eaten amberjack fish from 3 different restaurants in the area. All 3 restaurants used the same food supplier. The supplier was immediately notified and samples were collected. Ten of the people who had eaten amberjack fish from the restaurants were interviewed by Dallas County Health & Human Services and all 10 reported symptoms of ciguatera poisoning. Table 1 reports the frequencies of the symptoms among the

See “Ciguatera” Continued on page 7

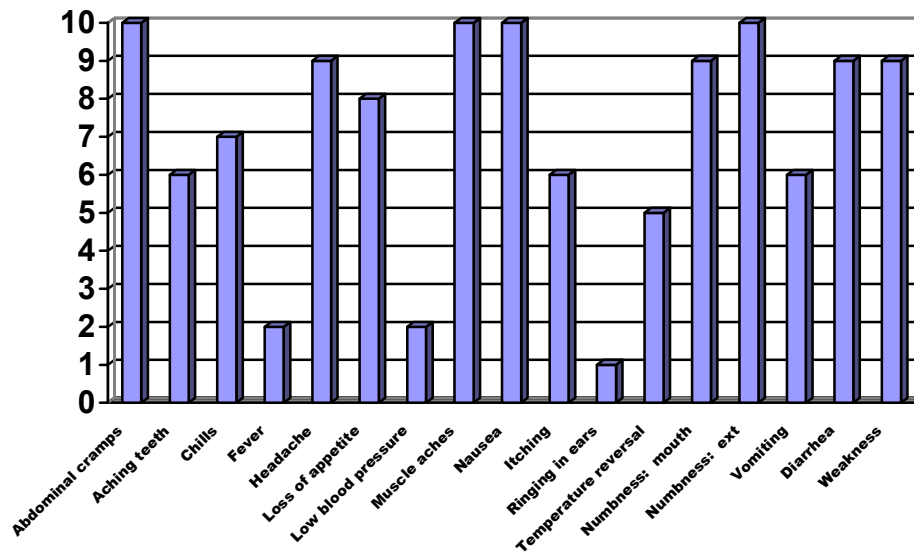


Figure 3: Frequency of Symptoms in patients exposed to Ciguatera Toxin

10 reporting individuals.

The relative frequency of ciguatera fish poisoning in the United States is not known. The disease has only recently become known to the general medical community, and there is a concern that the incidence is largely under-reported because of the generally non-fatal nature and short duration of the disease. Initial signs of poisoning occur within six hours after consumption of toxic fish. Ciguatera poisoning is usually self-limiting, and signs of poisoning usually subside within several days from the onset. However, in many cases, the neurological symptoms are known to persist from weeks to months. In a few isolated cases neurological symptoms have persisted for several years, and in other cases, recovered patients have experienced recurrence of neurological symptoms months to years later. Such relapses are most often associated with changes in dietary habits or with consumption of alcohol. The risk of death from ciguatera poisoning is extremely low⁴. ■

References:

1. <http://www.cdc.gov/flu/weekly/>
2. <http://www.dshs.state.tx.us/news/updates.shtm>
3. Schlossberg, D. *Infections of Leisure*. 3rd ed. 2004: 12-15
4. Arnold, Thomas. Toxicity: Ciguatera:
<http://www.emedicine.com/emerg/topic100.htm#section~medication>
5. http://www.cdc.gov/ncidod/dvrd/rabies/the_virus/virus.htm

Thank you for reading! We are in the process of expanding our reader base, so if you know of any physicians not receiving these reports who would like to receive them, please have him or her contact Dr. David Buhner.

Previous Monthly Reports and Public Health Updates are available upon request from:

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