

# Epi Monthly Report

Office of Epidemiology and Disease Control



Miami-Dade County  
**HEALTH DEPARTMENT**

## Investigation at a kindergarten facility in Miami-Dade County

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### INTRODUCTION

On March 15, 2001, the Miami-Dade County Health Department (MDCHD), Office of Epidemiology & Disease Control (OEDC) was contacted regarding a large number of students with nausea and vomiting at a kindergarten in Miami-Dade. Of the 277 students in the school, 114 (41%) were absent on Wednesday, March 14, 2001 and 80 (29%) students were absent on Thursday, March 15, 2001. The investigation of the outbreak started with the cooperation of the following departments of the MDCHD: Environmental Health Division, School Health, the Community Health Action Team (CHAT), and OEDC.

### METHODS

#### *Epidemiological Methods*

The case definition was any student or staff at the kindergarten with vomiting during the week of March 12. Teachers and parents completed a questionnaire in person and over the telephone. Epi Info 6.07 and Epi Info 2000 software were used to analyze and interpret the collected data.

#### *Control Methods*

Members of the CHAT were at the

kindergarten, Friday morning, to supply students and teachers with an interactive hand washing demonstration. Nurses from OEDC complemented the presentation with informational handouts entitled "Method of Hand Washing" in both English and Spanish. The MDCHD team advised teachers and students not to return to school if symptomatic and teachers to have students wash their hands prior to eating and after using the toilet. Water fountains were restricted until laboratory results for water found no coliforms.

#### *Environmental Investigation*

On March 15, 2001, the inspectors from the Division of Environmental Health conducted an onsite inspection of the kindergarten. At that time, they collected water samples from the bathrooms and water fountains located in the hallways and classrooms. The kitchen was thoroughly inspected during food preparation and service.



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### *Clinical Samples*

The nurse from OEDC collected three fecal samples from ill students and two samples from food service workers who were not ill. These samples were sent to the Bureau of Laboratories in Tampa for viral tests and to the Miami Regional Laboratory for bacterial and parasitic testing.

## **RESULTS**

### ***Epidemiologic Results***

Of the 277 students at the kindergarten, 131 (47%) questionnaires were completed. Due to the reported cases of prior illnesses and current unrelated health problems, 17 (13%) students were eliminated from the analysis. Of the 114 remaining questionnaires, 78 students (68%) report being ill with one-third reporting all three symptoms of vomiting, nausea, and diarrhea (Figure 1). The epidemic curve indicates cases occurred between March 12 and 16 (Figure 2). The 54 (69%) cases occurring on March 14 suggests a point source outbreak. Every classroom in the school had ill children with the attack rates ranging from 5 to 15 percent. There was no statistically significant association between illness and a particular meal or water (Table 1). The duration of illness was 24 to 48 hours. Only three staff were ill and are not included in the analysis. There were no ill cafeteria workers. The neighboring high school did not experience any of the above reportable symptoms among their students or faculty members.

### ***Environmental Results***

Inspection of the facility showed no major violations. There were no coliforms identified from the sample of water.

### ***Clinical Sample Results***

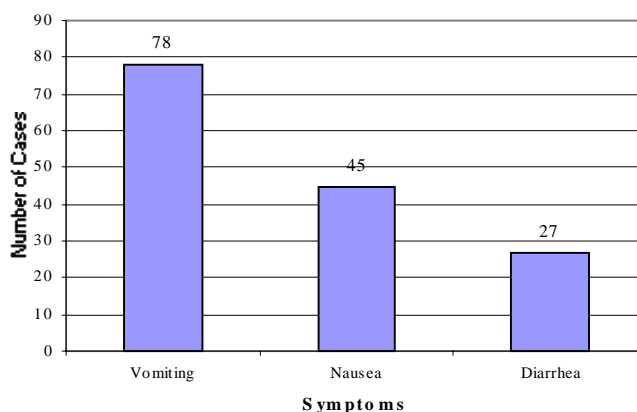
There were no bacteria, parasites, or Norwalk-like viruses identified from the five collected stool specimens. In addition, of the five students who sought care at an emergency room, one case tested negative for rotavirus and two cases were negative for bacteria and parasites.

## **CONCLUSIONS**

This appears to be an outbreak of viral gastroenteritis, possibly a Norwalk-like virus based on symptoms and duration of illness. The epidemic curve is

consistent with a point source outbreak. No meal or water was associated with illness but the point source may have been an episode of student vomiting resulting in environmental contamination. This outbreak was limited to this school since there was no indication of the problem extending to other schools. Our investigation was limited by receiving surveys back from less than half the students and that students recovered so quickly limiting stool testing. By Monday March 21<sup>st</sup>, school attendance had returned to normal. It is likely that the outbreak subsided quickly due to the high percentage of students who became ill leaving few susceptible students although control measures may have also helped.

**Figure 1. Number of Cases by Reported Symptom from questionnaire respondents**



### **To report diseases or for information:**

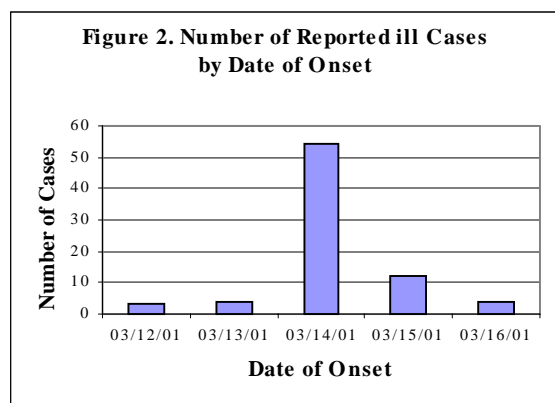
#### **Office of Epidemiology and Disease Control**

Childhood lead poisoning prevention program (305) 324-2414  
Hepatitis (305) 324-2490  
Other diseases and outbreaks (305) 324-2413

HIV/AIDS Program (305) 377-7400  
STD Program (305) 325-3242  
Tuberculosis Program (305) 324-2470  
Special Immunization Program (305) 376-1976  
Nights, weekends, and holidays (305) 377-6751



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**Table 1. Univariate Analysis of Risk Factors**

School Meals	ILL		NOT ILL		Odds Ratio	95% C.I.	
	No.	%	No.	%		Low	High
Monday Breakfast	26	81.25	52	65.00	2.33	0.86	6.34
Monday Lunch	49	67.12	29	74.36	0.70	0.29	1.68
Tuesday Breakfast	26	70.27	50	68.49	1.09	0.46	2.57
Tuesday Lunch	52	69.33	26	70.27	0.96	0.41	2.26
Wednesday Breakfast	24	80.00	53	65.43	2.11	0.77	5.77
Wednesday Lunch	48	68.57	29	70.73	0.90	0.39	2.09
Bottled Water	16	59.26	59	72.84	0.54	2.20	1.35
Water Fountain	65	69.15	12	70.59	0.93	0.30	2.90

### Notice to Readers: Deferral of Routine Booster Doses of Tetanus and Diphtheria Toxoids for Adolescents and Adults

[The following article appeared in MMWR, a weekly publication by CDC [May 25, 2001 / 50(20);418,427]

A shortage of tetanus and diphtheria toxoids (Td) and tetanus toxoid (TT) in the United States has resulted because one of two manufacturers discontinued production of tetanus toxoid-containing products (1). Aventis Pasteur (Swiftwater, Pennsylvania) is the only major manufacturer of tetanus and diphtheria toxoids (Td) in the United States. In response to the shortage, Aventis Pasteur has increased production of Td to meet national needs; however, because 11 months are required for vaccine production, the shortage is expected to last for the remainder of 2001.

To assure vaccine availability for priority indications (2), all routine Td boosters in adolescents and adults should be delayed until 2002. Td use should follow existing recommendations for all other indications, which include 1) persons traveling to a country where the risk for diphtheria is high\*; 2) persons requiring tetanus vaccination for prophylaxis in wound management; 3) persons who have received <3 doses of any vaccine containing tetanus and diphtheria toxoids; and 4) pregnant women who have not been vaccinated with Td during the preceding 10 years.

CDC recommends that health-care providers, including clinic personnel, record the names of patients whose booster dose is delayed during the shortage. When Td supplies are restored, these patients should be notified to return to their health-care provider for vaccination. According to Aventis Pasteur, sufficient vaccine will be available in early 2002 to supply the national demand.

Health-care providers using Td for wound management should follow recommendations from the Advisory Committee on Immunization Practices for wound management (3). All wound patients should receive Td if they have received <3 tetanus-containing vaccines or if vaccination history is uncertain. These patients also should receive tetanus immune globulin for wounds that are contaminated with dirt, feces, soil or saliva, puncture wounds, and avulsions and wounds resulting from missiles, crushing, burns or frostbite (3). For persons with  $\geq 3$  doses of tetanus toxoid-containing vaccine and severe or contaminated wounds, Td should be given only if >5 years have passed since the last dose of tetanus-containing vaccine. For clean and minor wounds, Td should be given only if the patient has not received a tetanus-containing vaccine during the preceding 10 years. Health-care providers should inquire from patients presenting for wound management about the timing of their last tetanus-containing vaccine to avoid unnecessary vaccination.



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Pediatric formulations of diphtheria and tetanus toxoids (DT) and diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP) should not be used for persons aged  $\geq 7$  years. Although TT might be considered a substitute for Td in wound management when Td is not available, TT is not available for national distribution. Existing stocks of TT are extremely limited and are mainly reserved for production of tetanus immune globulin and other special circumstances.

Health-care providers and institutions requiring Td for priority indications should contact Aventis Pasteur, telephone (800) 822-2463 or (800) VACCINE. Institutions should place orders for their anticipated needs for priority indications only. Limiting quantities of vaccine in each order is necessary to assure the widest possible distribution of available vaccine. For emergency situations (e.g., natural disasters) requiring increased use of Td, Aventis Pasteur can provide vaccine within 24 hours.

### References

1. CDC. Update on the supply of tetanus and diphtheria toxoids and of diphtheria and tetanus toxoids and acellular pertussis vaccine. MMWR 2001;50:189--90.
2. CDC. Shortage of tetanus and diphtheria toxoids. MMWR 2000;49:1029--30.
3. Immunization Practices Advisory Committee. Diphtheria, tetanus, and pertussis: recommendations for vaccine use and other preventive measures---recommendations of the Immunization Practices Advisory Committee (ACIP). MMWR 1991;40(no. RR-10).

\* Use of trade names and commercial sources is for identification only and does not imply endorsement by CDC or the U.S. Department of Health and Human Services.

† Children traveling to a country where the risk for diphtheria is high should be vaccinated according to the Childhood Immunization Schedule. Travelers may be at substantial risk for exposure to toxigenic strains of *Corynebacterium diphtheriae*, especially with prolonged travel, extensive contact with children, or exposure to poor hygiene. High-risk countries include the following: Africa---Algeria, Egypt, and sub-Saharan Africa; Americas---Brazil, Dominican Republic, Ecuador, and Haiti; Asia/Oceania---Afghanistan, Bangladesh, Cambodia, China, India, Indonesia, Iran, Iraq, Laos, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Syria, Thailand, Turkey, Vietnam, and Yemen; and Europe---Albania and all countries of the former Soviet Union.

## Influenza Vaccine Bulletin # 2

[The following article appeared CDC Web page **Flu Bulletin #2**, published June 21, 2001].

### INFLUENZA VACCINE SUPPLY/ PRODUCTION

*Preliminary information from manufacturers suggests that more influenza vaccine will be available this year than last year, but delays in the distribution of influenza vaccine will occur.*

Projected distribution of influenza vaccine for 2001, based on aggregate manufacturers' estimates as of June 15, is 83.7 million doses, which would exceed actual distribution in 1999 and 2000. In addition, 53.5 million doses (64 percent) is projected to be available by the end of October 2001, which is twice the amount, 26.6 million doses, available at the same time last year. However, in comparison to 1999, when there was no delay, 75.8 million or 99 percent of the total vaccine for the 1999 season was available by the end of October. In November and December of 2001, another 30.2 million doses (36 percent) of the total 83.7 million is projected to be available. CDC and FDA stress that these are early projections from manufacturers and could change as the season progresses.

### INFLUENZA VACCINE DISTRIBUTION

*On the basis of these projections, the Advisory Committee on Immunization Practices (ACIP) has agreed on supplemental recommendations to promote the administration of influenza vaccine that is available early to persons at greatest risk of complications from influenza disease.*

The ACIP makes the following recommendations to supplement those published earlier:

1. For providers of influenza vaccine  
Providers should actively target vaccine available in September and October to persons at increased risk of influenza complications and to health care workers.



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Providers should continue vaccinating patients, especially those at high risk and in other target groups, through December and later, as long as vaccine is available.

## 2. For the public

Persons at high risk for complications from influenza disease should seek vaccination in September and October, or as soon as vaccine is available from their provider.

Persons who are not at high risk are encouraged to seek influenza vaccine in November and later when additional supply will become available.

## 3. For mass immunizers

Organizers of mass immunization campaigns not in workplaces should plan campaigns in late-October or November when vaccine supply is assured and make special efforts to vaccinate the elderly and those at high risk of influenza complications

## 4. For manufacturers, distributors, and vendors

Distribution of vaccine to worksites should be delayed until November.

Vaccine that is available early in the season should be apportioned so that some vaccine is distributed to all other providers who have placed orders.

Manufacturers, distributors, and vendors should inform providers of the amount of vaccine they will receive and date of shipment.

## 5. For health departments and other organizations providing vaccine

Groups that provide influenza vaccine services should develop contingency plans responding to a delay in vaccine distribution.

## INFLUENZA VACCINE COMMUNICATIONS

***CDC has launched its 2001-02 influenza season website at [www.cdc.gov/nip/flu](http://www.cdc.gov/nip/flu).***

Materials related to this year's influenza season such as current ACIP influenza recommendations, CDC's "Best Practices" guidelines for mass clinics, and Questions and Answers can be found at the website. In addition,

the website contains materials that may help providers implement a reminder/recall system. As preparation for the 2001-02 influenza season proceeds, regular communications among CDC, FDA, the vaccine manufacturers and a wide range of partners will continue.





# Monthly Report

## Selected Reportable Diseases/Conditions in Miami-Dade County, May 2001

Diseases/Conditions	Reported Cases	2001	2000	1999	1998
	this Month	Year to Date	Year to Date	Year to Date	Year to Date
AIDS *Provisional	131	607	602	653	633
Campylobacteriosis	8	39	39	33	22
Chancroid	0	0	0	0	0
<i>Chlamydia trachomatis</i>	371	1317	1754	1800	834
Ciguatera Poisoning	0	0	0	0	0
Cryptosporidiosis	1	6	1	4	4
Cyclosporiasis	0	0	0	0	0
Diphtheria	0	0	0	0	0
<i>E. coli</i> , O157:H7	0	0	1	0	2
<i>E. coli</i> , Other	0	0	0	0	1
Encephalitis	0	0	0	0	0
Giardiasis, Acute	22	95	10	26	18
Gonorrhea	155	740	1354	1216	610
Granuloma Inguinale	0	0	0	0	0
<i>Haemophilus influenzae</i> B (invasive)	0	1	1	0	0
Hepatitis A	8	60	29	28	56
Hepatitis B	8	21	14	14	25
HIV *Provisional	169	687	685	625	671
Lead Poisoning	16	75***	167	Not available	Not available
Legionnaire's Disease	0	0	0	0	1
Leptospirosis	0	0	0	0	0
Lyme disease	0	1	3	0	0
Lymphogranuloma Venereum	0	0	0	0	0
Malaria	2	10	13	11	10
Measles	0	0	0	0	0
Meningitis (except aseptic)	0	3	6	13	12
Meningococcal Disease	3	9	11	6	5
Mumps	0	0	1	2	0
Pertussis	0	1	3	7	10
Polio	0	0	0	0	0
Rabies, Animal	0	0	0	0	1
Rubella	0	0	0	0	0
Salmonellosis	16	67	48	68	70
Shigellosis	6	34	42	45	66
<i>Streptococcus pneumoniae</i> , Drug Resistant	15	75	84	78	40
Syphilis, Infectious	15	73	57	30	14
Syphilis, Other	68	327	345	392	246
Tetanus	0	1	0	0	0
Toxoplasmosis	2	6	0	0	0
Tuberculosis *Provisional	9	57	105	97	128
Typhoid Fever	0	0	0	15	2
<i>Vibrio</i> , <i>cholera</i>	0	0	0	0	0
<i>Vibrio</i> , Other	0	0	0	0	1

\* Data on AIDS are provisional at the county level and is subject to edit checks by state and federal agencies.

\*\* Data on Tuberculosis are provisional at the county level. \*\*\*: All follow-up cases were removed



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