

Hepatitis A in Miami-Dade County 1990-1999

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Description of disease: Hepatitis A is a liver infection caused by the hepatitis A virus (HAV). The signs and symptoms of hepatitis A can include fever, malaise, jaundice, anorexia, nausea, and abdominal pain. Symptomatic illness is more common among adults than children. Over 70% of adults and older children have symptoms compared with approximately 30% of children younger than 6 years of age. Most people recover within two months although 10-15% may have a prolonged course of illness of up to 6 months (1).

Transmission: The hepatitis A virus can be transmitted person to person through the fecal-oral route or by fecally contaminated food or water. People with hepatitis A are most infectious during the two-weeks prior to onset of jaundice (2). Nationwide, the most frequently reported source of infection is household or sexual contact with a person with hepatitis A (12-26%). International travel is reported for 4-6% of cases, and 2-3% of cases are associated with recognized food or waterborne disease outbreaks. Outbreaks have occurred among injecting and noninjecting drug users and men who have sex with men (1).

Hepatitis A surveillance: The case definition for hepatitis A in Florida includes a clinical case definition and laboratory confirmation. The clinical case definition for hepatitis A in Florida is "an acute illness with a) discrete onset of symptoms and b)

jaundice or elevated serum aminotransferase levels." The laboratory criterion for diagnosis is a positive IgM antibody to hepatitis A virus. A confirmed case is one which meets the clinical case definition and is laboratory confirmed, or a case that meets the clinical case definition and is epidemiologically linked with a person with laboratory confirmed hepatitis A (3).

In Miami-Dade County, surveillance for hepatitis A has been conducted continuously since the 1980s. However, surveillance data were not entered into an electronic database until 1994. Cases of hepatitis A are reported via letter, fax or phone from health care providers and laboratories. Miami-Dade County Health Department staff investigate these cases to determine if they meet the case definition and to ensure appropriate disease control measures.

Epidemiology of hepatitis A in Miami-Dade County: During the last 10 years 1990-1999, the average number of cases reported to the Miami-Dade County Health Department has been 103 a year with a range of 40 to 170. The average incidence rate for Miami-Dade County during that time period was 5.1 cases per 100,000 population, which was the same as the statewide rate. However, during some years the county rate was higher than that of the state, and other years it was lower (figure 1). Since 1997, the incidence rate of hepatitis A has declined in Miami-Dade County.

Although cyclic increases and decreases occur with hepatitis A, the decline since 1997 may be partially due to the hepatitis A vaccine and educational campaigns for children of migrant farm workers and other

attendees of daycare centers in the Homestead and Florida City areas (zip code 33030, 33033, 33034 and 33035) from October 1997 to present. This vaccination campaign has been funded by a grant from Miami-Dade County, and vaccine has been provided by the Vaccine for Children Program. During 1997, 26 cases were reported from the Homestead/Florida City area, and 21 (81%) were among children younger than 15 years. The Advisory Committee on Immunization Practices (ACIP) recommends vaccination for children in communities where the average annual hepatitis A rate during 1987-97 was 20 or more cases per 100,000 population (1). Although the incidence rate in the Homestead/Florida City area is not known for the entire time period 1987-97, it was 42.9 cases per 100,000 population during 1997.

From 1997 to 1999, the number of reported hepatitis A cases among children younger than 15 years declined from 21 to 3. In 1999, the incidence rate was 15 cases per 100,000 total population. The Advisory Committee on Immunization Practices (ACIP) recommends considering vaccination for children in communities where the average annual hepatitis A rate during 1987-97 was 10 or more cases per 100,000 population (1). The vaccination campaign will continue this fall, and the need for vaccination will be assessed annually.

Countywide, the number of hepatitis A cases tends to peak from August through October (figure 2). These three months account for 32% of the cases on average. Many of these cases are among children who are returning

from a summer visit with relatives in Central and South America and the Caribbean.

The highest incidence of reported hepatitis A cases is among children and young adults (figure 3). Because most young children with hepatitis A are asymptomatic, they are unlikely to be diagnosed. Therefore, the real incidence of hepatitis A in the youngest age group is likely much higher than that in Figure 3.

During 1999, 103 (93%) of 111 patients with reported hepatitis A were interviewed. Eighteen (17%) of the interviewed patients had contact with other persons with hepatitis A, which is consistent with national data (1). Recent international travel was reported for 30 (29%) of the interviewed cases, a proportion much higher than the 4-6% reported nationally (1). Ninety percent of the 30 travelers had been in Central and South America and the Caribbean. Fourteen (14%) were among homosexual men. However, nine of these men also reported eating raw seafood. There were no reported case-patients with a history of injection drug use.

Prevention and control of hepatitis A:

Surveillance data indicate that we need to educate people traveling to developing countries and men who have sex with men about hepatitis A prevention. In January 2000, the Miami-Dade County Health Department received funds from the state for hepatitis prevention and control, including hepatitis A. As part of this program, education about preventing hepatitis A will be aimed at travelers and men who have sex with men.

Proper sanitation and proper hygiene, especially hand washing, help prevent hepatitis A. There are also two efficacious, inactivated hepatitis A vaccines available in the United States: Havrix (Smith Kline Beecham Pharmaceuticals) and Vaqta (Merck & Co, Inc). Both are two-dose vaccines that can be given to persons older than two years. The only contraindication to the vaccine is a history of a severe reaction to a prior dose or to a vaccine component (1). The Advisory Committee on Immunization Practices (ACIP) recommends vaccination of patients who are at increased risk of hepatitis A infection or persons at increased risk of severe infection. These include

- travelers to developing countries
- men who have sex with men
- illegal-drug users
- persons who work with HAV in a research setting or with nonhuman primates
- persons with clotting-factor disorders
- persons with chronic liver disease.

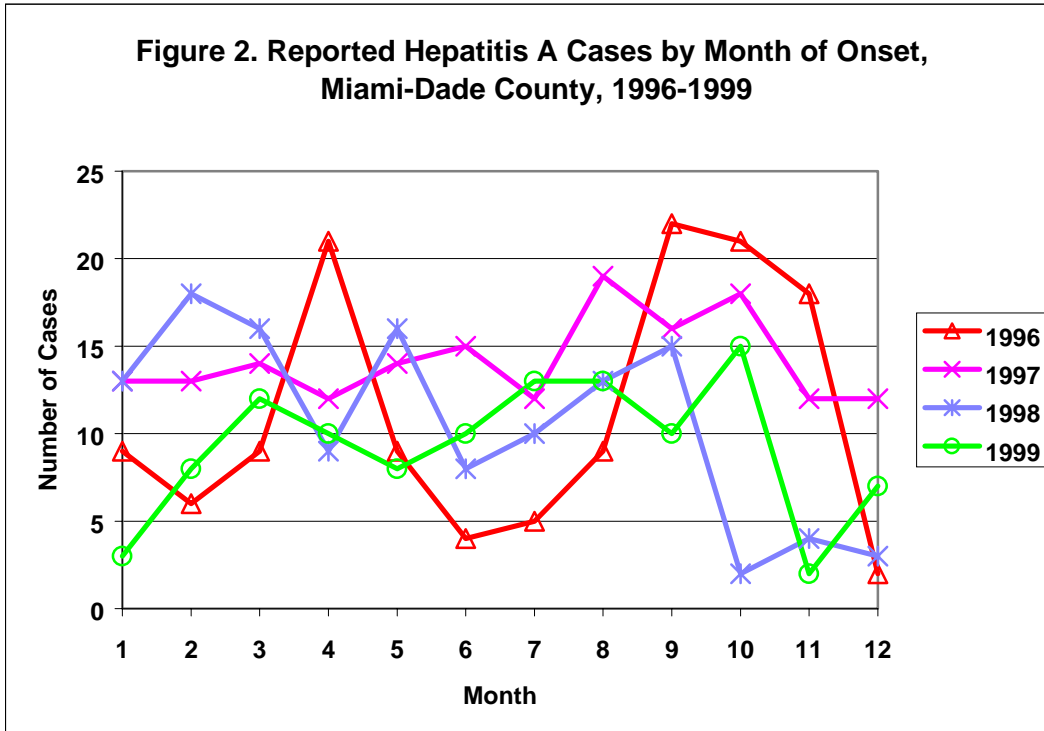
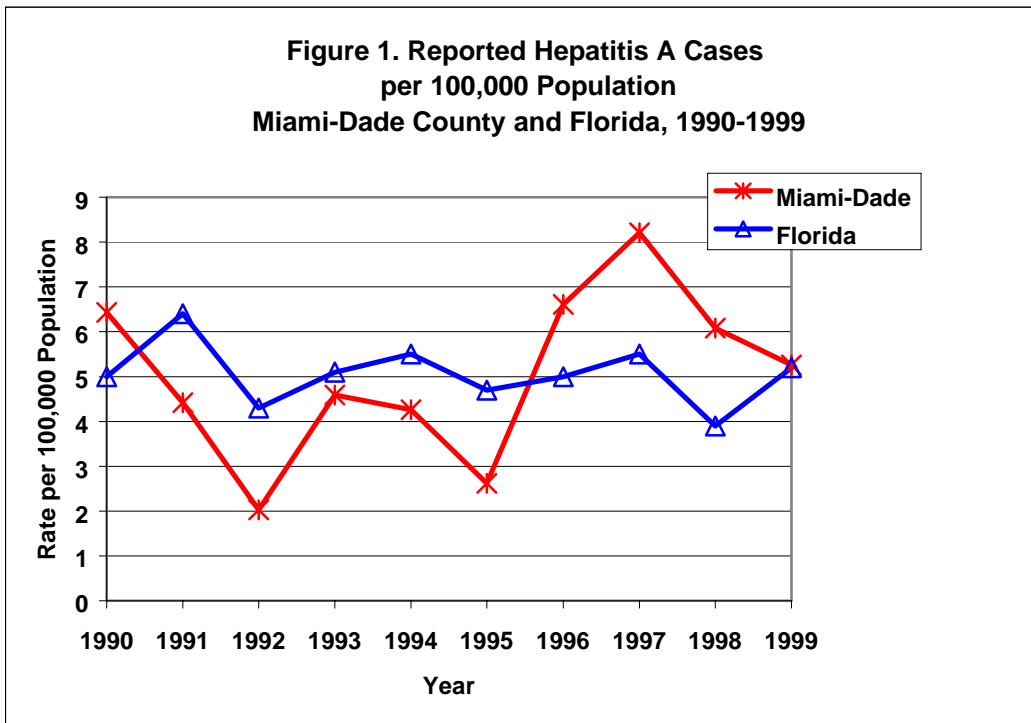
Hepatitis A is also prevented by identifying close contacts and providing them post exposure prophylaxis with immune globulin. Close contacts include household and sexual contacts and persons who have shared illegal drugs with a person with hepatitis A. An investigation is always necessary in day care settings and if a food handler has hepatitis

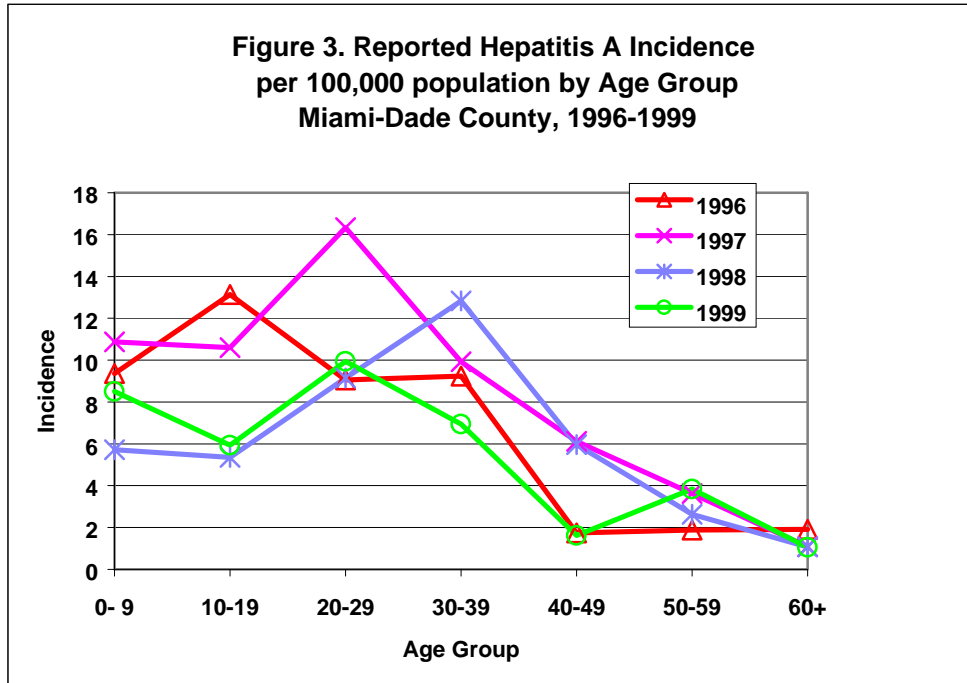
A. Depending on the results of that investigation, post-exposure prophylaxis may be recommended for some or all contacts.

Post exposure prophylaxis with immune globulin is most effective if given as soon after exposure as possible and should not be given more than 2 weeks after the last exposure (1). Therefore, it is extremely important that suspected hepatitis A cases are reported to the Miami-Dade County Health Department immediately so that close contacts can be identified and receive immune globulin as soon as possible.

References:

- (1) Centers for Disease Control and Prevention. Prevention of hepatitis A through active or passive immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR* 1999; 48(No. RR-12).
- (2) American Academy of Pediatrics. 2000 Red Book: Report of the Committee on Infectious Diseases. 25th Ed. Elk Grove Village, IL: American Academy of Pediatrics; 2000: 280-289.
- (3) Florida Department of Health Bureau of Epidemiology. Surveillance Case Definitions for Select Reportable Diseases in Florida, June 2000.





Monthly Report

Selected Reportable Disease/Conditions in Miami-Dade County, *June, 2000*

Diseases/Conditions	Reported Cases this Month	2000 Year to Date	1999 Year to Date	1998 Year to Date
AIDS ^{*Provisional}	108	715	788	794
Campylobacteriosis	13	48	92	90
Chancroid	0	0	0	1
<i>Chlamydia trachomatis</i>	248	2002	2242	942
Ciguatera Poisoning	0	0	0	0
Cryptosporidiosis	0	1	16	24
Cyclosporiasis	0	0	0	2
Diphtheria	0	0	0	0
<i>E. coli</i> , 0157:H7	0	1	0	2
<i>E. coli</i> , Other	0	0	0	1
Encephalitis	0	0	0	0
Giardiasis, Acute	14	25	51	82
Gonorrhea	208	1562	1561	698
Granuloma Inguinale	0	0	0	0
<i>Haemophilus influenzae</i> B (invasive)	0	1	2	0
Hepatitis A	9	39	51	80
Hepatitis B	6	24	75	41
HIV ^{*Provisional}	142	895	828	898
Lead Poisoning	40	207	Not available	Not available
Legionnaire's Disease	0	0	1	2
Leptospirosis	0	0	0	0
Lyme disease	0	3	5	0
Lymphogranuloma Venereum	0	0	0	2
Malaria	2	15	22	19
Measles	0	0	0	0
Meningitis (except aseptic)	2	9	19	29
Meningococcal Disease	1	12	12	10
Mumps	0	1	3	0
Pertussis	1	4	11	11
Polio	0	0	0	0
Rabies, Animal	0	0	0	1
Rubella	0	0	0	0
Salmonellosis	20	68	163	184
Shigellosis	16	57	84	195
<i>Streptococcus pneumoniae</i> , Drug Resistant	22	107	133	103
Syphilis, Infectious	10	67	35	16
Syphilis, Other	59	404	461	303
Tetanus	0	0	0	0
Toxoplasmosis	0	0	0	2
Tuberculosis ^{*Provisional}	14	119	126	143
Typhoid Fever	0	0	15	2
<i>Vibrio, cholera</i>	0	0	0	0
<i>Vibrio</i> , Other	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.