NATIONAL COMMUNICABLE DISEASE CENTER

Morbidity and Mortality

Vol. 18, No. 22

WEEKLY REPORT

For Week Ending May 31, 1969

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE / PUBLIC HEALTH SERVICE / HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION

DATE OF RELEASE: JUNE 6, 1969 – ATLANTA, GEORGIA 30333

INTERNATIONAL NOTES

OUTBREAK OF PARATYPHOID FEVER – Linz, Austria

An epidemic of paratyphoid fever due to *Salmonella schottmülleri* has been reported from Austria. As of June 3, a total of 907 infections, in both symptomatic and asymptomatic persons, were reported, of which 293 have been confirmed. Symptoms were reported as mild and there were no deaths. The earliest cases were recognized between May 8 and 10 with rapid increases of reported cases thereafter. The peak of the outbreak was reached on May 17 when 147 cases were reported. A 30 to 35 percent secondary attack rate was recorded among close household contacts, especially children, of the cases.

The focus of the epidemic was Linz (a city approximately 95 miles west of Vienna), although cases were widely scattered throughout upper Austria. The outbreak began immediately after an annual fair in Linz from April 27 through May 4, a period which was unseasonab.y warm. Most of the patients had attended the fair and gave a history of eating ice cream. The implicated ice cream vendor at the fair also had a shop in Waldhausen (a village approx-

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TABLE I. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

(Cumulative totals include revised and delayed reports through previous weeks)

DISEASE	22nd WEEK ENDED		MEDIAN	CUMULATIVE, FIRST 22 WEEKS		
	May 31, 1969	June 1, 1968	1964 - 1968	1969	1968	MEDIAN 1964 - 1968
Aseptic meningitis	23	33	27	598	640	630
Brucellosis	8	3	3	59	63	97
Diphtheria	1	17	4	63	84	78
Encephalitis, primary:						
Arthropod-borne & unspecified	19	14	26	427	351	541
Encephalitis, post-infectious	9	10	23	127	242	378
Hepatitis, serum	78	73	543	2,197	1,694	17,890
Hepatitis, infectious	787	821		20,186	18,593	
Malaria	47	37	4	1,110	898	119
Measles (rubeola)	625	708	5,919	15,126	15,229	162,223
Meningococcal infections, total	58	32	41	1,828	1,473	1,473
Civilian	55	24	---	1,650	1,327	---
Military	3	3	---	178	146	---
Mumps	2,176	3,368	---	53,995	105,987	---
Poliomyelitis, total	–	1	1	2	21	13
Paralytic	–	1	1	2	21	11
Rubella (German measles)	2,215	1,695	---	37,195	34,577	---
Streptococcal sore throat & scarlet fever	6,357	7,880	6,795	235,006	232,984	232,984
Tetanus	3	6	6	49	52	66
Tularemia	2	10	3	53	77	77
Typhoid fever	9	5	5	119	107	134
Typhus, tick-borne (Rky. Mt. spotted fever)	28	13	8	74	46	32
Rabies in animals	49	52	76	1,636	1,658	1,967

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	2	Rabies in man:	1
Botulism:	10	Rubella congenital syndrome:	5
Leptospirosis: La.-2	23	Trichinosis: Mich.-1, Ohio-5	38
Plague:	–	Typhus, murine:	6
Psittacosis:	13		

PARATYPHOID FEVER – *(Continued from front page)*

imately 32 miles east of Linz), where additional cases occurred in persons who had not been to Linz but who had eaten ice cream at this shop. Investigation revealed that the ice cream vendor was clinically ill and *S. schottmülleri* was isolated from him. Whether the vendor or contaminated water used to rinse ice cream equipment and containers was the source of infection is not known.

Newspaper coverage of the outbreak prompted many persons to suspect that they had been infected and to present themselves for examination to the local health officials. Identified excretors of the salmonellae organism were excluded from food handling occupations and other occupations where the possibility of further transmissions existed. Five food handling establishments were closed because of positive cultures among employees. The immediate outbreak control measures taken by the Austrian health authorities appear to have ended any general threat of infection.

(Reported by Dr. Franz Bauhofer, Chief, Division of Public Health, Federal Ministry of Social Affairs, Republic of Austria, Vienna, and Dr. Franz Poddany, M.O.C., USPHS Visa Examining Unit, Vienna; and the Foreign Quarantine Program, NCDC.)

Editorial Comment:

Inquiries concerning the advisability of immunization with typhoid-paratyphoid vaccine have been made both in the United States and abroad by persons traveling to Austria. Immunization has not been recommended. Salmonella paratyphi A and B antigens of the combined typhoid-paratyphoid vaccine have not been demonstrated to be effective in preventing paratyphoid fevers. The U.S. Public Health Service Advisory Committee on Immunization Practices (MMWR, Vol. 15, No. 29) did not recommend use of the combined typhoid and paratyphoid vaccine because of the lack of demonstrated efficacy and increased likelihood of vaccine reactions.

EPIDEMIOLOGIC NOTES AND REPORTS

CASE OF GROUP A MENINGOCOCCEMIA – Fort Benning, Georgia

The first Group A meningococcal organism reported from within the United States to NCDC since early 1967 was recently isolated from a soldier at Fort Benning. The soldier was not a recruit and had served in the army since July 1967. He was transferred to Fort Benning on March 19, 1969, after a tour of duty in Korea. He remained on the base working in a spare parts supply room of a Construction Engineer company. He took no leave during the ensuing 7 weeks. On the evening of May 4, he complained of upper respiratory symptoms and fever and was seen at the post hospital where the fever was confirmed. He was admitted for observation and within several hours developed headache and multiple petechiae. A clinical diagnosis of meningococcemia was made and the patient was treated with large volumes of intravenous fluids and high doses of intravenous penicillin. He made an uneventful recovery. Subsequently an organism was isolated from an admission blood culture which was identified as *Neisseria meningitidis,* Group A, which was highly sensitive to sulfadiazine, being inhibited by a concentration of 0.1 μg per ml (0.01 mg percent).

A nasopharyngeal culture survey of 122 members of the soldier's company was conducted on May 27. *N. meningitidis* was isolated from 31 members of the company. However, none of the isolates belonged to Serogroup A. Fourteen of the organisms belonged to Serogroup B, nine to Serogroup C, five to Serogroup Y (Boshard), one to Serogroup 29E, and two organisms could not be typed.

Large recruit populations enter Fort Benning, and since last fall 34 cases of meningococcal infections have been diagnosed there. Routine culture surveys are conducted monthly at Fort Benning. A routine monthly culture survey conducted on May 12 revealed that newly arriving recruits had the same prevalence of positive throat cultures as trainees already in the sixth week of training.

Serogrouping has been performed on 16 isolates obtained since Jan. 1, 1969: 11 belonged to Serogroup C, three to Serogroup B, one to Serogroup Y, and one organism could not be typed.

There have been no Group A sulfonamide resistant organisms from the United States ever received by NCDC although sulfonamide resistant Group A meningococcal disease has been reported from North Africa.

(Reported by Lt. Col. Charles Webb, Chief, Preventive Medicine Activities, MEDDAC, Fort Benning, Georgia; Col. J. R. Gauld, Preventive Medicine Division, Office of the Surgeon General of the Army, Washington, D.C.; Malcolm Artenstein, M.D., Chief, Department of Bacterial Diseases, Walter Reed Army Institute of Research; and the Bacterial Reference Unit and Bacterial Immunology Unit, Laboratory Division, and the Special Pathogens Section, Bacterial Diseases Branch, Epidemiology Program, NCDC.)

OUTBREAK OF METHICILLIN-RESISTANT STAPHYLOCOCCAL INFECTIONS

Seattle, Washington

Between Dec. 25, 1968, and Feb. 21, 1969, six patients at the Harborview Medical Center in Seattle were infected and/or colonized with a methicillin-resistant strain of *Staphylococcus aureus,* phage type 84. The index case, a 92-year-old man with pneumonia, was admitted to the hospital from a nursing home on December 25.

Methicillin-resistant *S. aureus* was isolated from cultures of his sputum and urine and from a decubitus ulcer. Following therapy with cephalothin, his sputum and urine became negative, but the decubitus ulcer remained positive until his discharge from the hospital on January 31. Two other patients developed fatal staphylococcal pneumonias caused by this strain. Another patient developed a postoperative wound abscess with the organism on February 17 following a cholecystectomy. During the outbreak, anterior nasal culture surveys of personnel and patients from the same wards revealed two other asymptomatic patient carriers of the methicillin-resistant staphylococcal strain. None of the five subsequently infected persons had direct contact with the index case. Other surveys during the outbreak failed to detect a carrier of this strain among hospital personnel.

Culture surveys were also conducted at the nursing home from which the index case had been admitted. Two additional patient carriers were detected, but no carriers were found among personnel. No contact could be established between the index case and these carriers.

Since the hospitalized patients had not shared the same room and the hospital personnel were not colonized with this strain, it is presumed that indirect contact spread occurred between patients, probably via hands of personnel. No new infections have been noted at the hospital since February 21.

Prior to this outbreak, only one methicillin-resistant *S. aureus* strain had ever been isolated at this hospital. This strain differed from that associated with the present outbreak and was isolated in February 1968 from a patient with staphylococcal endocarditis who was referred from another hospital.

(Reported by Harry N. Beaty, M.D., Division of Infectious Disease, and Harold Laws, M.D., Medical Director, Harborview Medical Center, Seattle; Donald R. Peterson, M.D., Health Officer, King County; and Byron J. Francis, M.D., M.P.H., Chief, Division of Epidemiology, Washington State Department of Health.

Editorial Comment:

Since its introduction into clinical use in 1960, methicillin has been widely used and has proved highly effective in the treatment of patients with severe infections, especially bacteremia, caused by penicillin-resistant *S. aureus*. Strains of *S. aureus* resistant to methicillin and similar penicillinase-resistant penicillins appeared soon after its general clinical use began. Nosocomial infections caused by such strains have now been reported from Australia and many European countries, and a sizable and increasing proportion of staphylococcal infections in hospitalized patients within these countries (up to 24 percent)[1] are presently caused by methicillin-resistant strains. However, prior to a report of 14 clinically infected, hospitalized patients in 1968, only four such cases had been reported from the United States.[2]

The strains associated with these hospital-acquired infections have been predominantly phage group III, as in the outbreak reported above, and are characterized by resistance to multiple antibiotics; they are often susceptible only to a few, relatively toxic, antimicrobials. It is likely that infections caused by such strains will become of increasing importance in the United States.

References:

[1]Siboni, K., and Poulsen, E.D.: The Dominance of Methicillin-Resistant Staphylococci in a County Hospital. *Danish Med Bull, 15*(6):161-165, 1968.

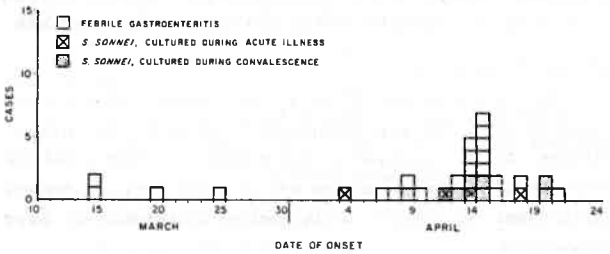
[2]Barrett, F. F., McGehee, R. F., and Finland, M.: Methicillin-Resistant *Staphylococcus aureus* at Boston City Hospital. *New Eng J Med, 279*:441-448, 1968.

OUTBREAK OF SHIGELLOSIS – Prineville, Oregon

During March and April 1969, 31 of 36 residents in seven houses of a new housing development near Prineville became ill with acute febrile gastroenteritis (Figure 1). The illnesses lasted from 1 to 7 days (median 3 days) and were characterized by diarrhea (97 percent), fever (71 percent), nausea (65 percent), cramps (48 percent), headache (45 percent), vomiting (42 percent), and myalgia (19 percent). One man required hospitalization. *Shigella sonnei* was cultured from the stools of four persons with acute diarrhea, eight convalescent persons, and two of six visitors to the area.

Figure 1

FEBRILE GASTROENTERITIS, PRINEVILLE, OREGON, 1969



The epidemic curve was compatible with a common source outbreak, and the epidemiologic investigation suggested the water supply as the vehicle of infection. Water for the residents of all seven houses came from a common well, 30 feet in depth, and sealed with cement grout to a depth of 20 feet. The soil strata showed 1 to 3 feet of top soil and then mixed clay and gravel to a depth of 30 feet. Sewage disposal was provided by individual household septic tanks. On April 23 water from the well was cultured and grew *S. sonnei* and coliform organisms. Although fluorescein dye and sodium chloride tracer techniques were used, the presumed contaminating link between sewage and the well could not be demonstrated. The primary control measure employed was the drilling of a new deep well for the housing development.

Because of contact with the affected area and reports of similar illnesses in persons residing in houses contingent to these seven houses, a random sample survey of 252 housing units was conducted on May 6 and 7. Approximately 15 percent of the sampled population had experienced diarrheal illness between January 1 and May 7.

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SHIGELLOSIS – *(Continued from page 187)*

No statistically significant difference in the incidence of diarrheal illness could be demonstrated between persons having private wells and those receiving their water from the chlorinated municipal water supply. Twenty-two stool cultures obtained from persons recently ill with diarrhea in the survey population were all negative for enteric bacterial pathogens.

(Reported by Gatlin Brandon, M.S., M.P.H., Director, Oregon State Public Health Laboratory; Ken Ashbaker, District Sanitary Engineer, Oregon State Board of Health; Dick Clark, Sanitarian, and Helenmarr Wimp, Public Health Nurse, Crook County Health Department; Enteric Diseases Section, Bacterial Diseases Branch, and Statistics Section, Epidemiology Program, NCDC; and an EIS Officer.)

MALARIA OUTBREAK ON BOARD A MERCHANT VESSEL

On April 4, 1969, while on board a ship in the Atlantic, a 30-year-old Ghanian merchant seaman developed chills, fever, headache, and abdominal pain. His symptoms persisted and when the ship arrived in Newark, New Jersey, on April 7, he was hospitalized. *Plasmodium falciparum* trophozoites were identified in his peripheral blood, and following chloroquine treatment, he recovered. During the 4 weeks prior to his illness, his ship had visited ports in Senegal, the Ivory Coast, and Ghana.

On April 10, the ship traveled to Philadelphia, and on April 18, the day of departure for Galveston, Texas, sera and blood smears were obtained from 37 crew members, all of whom were native West Africans, and from the captain and his wife, who were British. None of the 39 individuals were ill. The captain's daughter and the remaining nine crew members were not available for interviewing or blood sampling.

Four of the 37 crewman had asexual malaria parasites in their blood smears; in two of these, the species were *P. falciparum* and in the other two, the *Plasmodium* species could not be identified; gametocytes were not seen. The sera were analyzed for malaria antibodies using the indirect fluorescent antibody technique. Sera from the captain and his wife were negative, but all 37 crewmen had high titers to at least one of the four human *Plasmodium* antigens.

On April 25, the ship arrived in Galveston. On April 26, the vessel was sprayed with DDT and all crew members were treated with chloroquine. As of May 9, when the ship left American waters, no further illness has developed among the 50 persons on board.

(Reported by Alfred B. Giordano, Acting Chief Inspector, and Angelo Storino, Sanitary Inspector, Contagious Diseases Bureau, and Aaron H. Haskin, M.D., M.P.H., Health Officer, Newark City Health Department; Ronald Altman, M.D., Director, Preventable Diseases Bureau, New Jersey State Health Department; Sylvan M. Fish, M.D., Consultant, Communicable Disease Control Section, Division of Epidemiology, Philadelphia City Health Department; C. D. Bienvenu, Foreign Quarantine Inspector, Galveston, Texas, and Norman G. Craig, Supervisory Quarantine Inspector, Staten Island, New York, and the Foreign Quarantine Program, NCDC; and two EIS Officers.)

A FATAL CASE OF MALARIA

On March 26, 1968, while on board a ship in the mid-Atlantic, a 21-year-old American seaman developed weakness, chills, and fever. His ship had departed from a West African port several days previously. He was treated with aspirin but continued to feel feverish and weak. On March 30, he developed headache, severe diarrhea, abdominal cramps, and dyspnea; his temperature was 103.6° F. He was treated with tetracycline and later penicillin but continued to have daily temperatures as high as 106°F.; his diarrhea persisted and he became extremely weak. On April 5, his ship arrived in the United States and he was hospitalized. Physical examination revealed an exceedingly thirsty, agitated, dehydrated, hypotensive white male with diarrhea, tachycardia, and a temperature of 100°F. The tip of his spleen was palpable and he had marked weakness of the extremities. The hematocrit was 62 percent and the white cell count was 5,800; no malaria parasites were noted in the initial examination of the admission blood smear. The BUN was 42 mg percent, sodium 124 meq per liter, potassium 3.2 meq per liter, chloride 83 meq per liter, and carbon dioxide 16 meq per liter. A lumbar puncture was normal. He was treated with intravenous fluids and belladonna. Twenty-four hours later he had not improved; another blood smear was obtained at this time and numerous *Plasmodium falciparum* parasites were identified. Chloroquine therapy was immediately instituted, but very shortly thereafter, the patient's temperature rose to 108°F. and he died.

Postmortem examination revealed malaria parasites and malaria pigment in red cells throughout the body. The heart showed interstitial edema and hyaline degeneration; there was pulmonary edema; the central nervous system neurons showed anoxic changes. In addition, there was marked congestion of the intestinal mucosa. A review of the blood smears obtained on the day of the patient's hospitalization revealed *P. falciparum* parasites.

(Reported by Henry E. Harris, Senior Surgeon, U.S. Public Health Service Hospital, Staten Island; and Howard B. Shookhoff, M.D., Chief, Tropical Disease Division, Bureau of Preventable Disease, New York City Health Department.)

Editorial Comment:

Seamen continue to have the highest malaria case fatality ratio for any occupational group in the United States. As in this case, seamen with falciparum malaria frequently become ill at sea and do not receive treatment until many days later, when serious complications have developed.

RECOMMENDATION OF THE PUBLIC HEALTH SERVICE ADVISORY COMMITTEE ON IMMUNIZATION PRACTICES

YELLOW FEVER VACCINE

INTRODUCTION

At present, cases of yellow fever are reported from only Africa and South America. Two forms of yellow fever – urban and jungle – are distinguishable epidemiologically. Clinically and etiologically, they are identical.

Urban yellow fever is an epidemic viral disease of man transmitted from infected to susceptible persons by a vector, the *Aedes aegypti* mosquito. With the elimination of *A. aegypti,* urban yellow fever has disappeared from previously epidemic foci.

Jungle yellow fever is an enzootic viral disease transmitted among non-human hosts by a variety of mosquito vectors. It is currently observed only in the jungles of South America and Africa, but in the past has extended into parts of Central America as well. Human cases occur by chance. The disease can ostensibly disappear from an area for years and then reappear. Delineation of areas affected depends upon accurate diagnosis and prompt reporting of all cases.

Urban yellow fever can be prevented by eradicating *A. aegypti* mosquitoes. Jungle yellow fever can be prevented in humans only by immunization. Because infection is from a non-human reservoir, prevention of human cases requires vaccination of all persons at risk.

YELLOW FEVER VACCINE

Yellow fever vaccine is a live, attenuated virus preparation made from one of two strains of virus: 17D and Dakar (French neurotropic). The Dakar strain has been associated with a significant (0.5 percent) incidence of meningoencephalitic reactions and is not recommended. The 17D strain has caused no significant complications.

Licensed vaccine available in the United States is prepared from the 17D strain, which is grown in chick embryo inoculated with a fixed passage level seed virus. The vaccine is freeze-dried supernate of centrifuged embryo homogenate.

Vaccine should be stored at the temperature recommended by the manufacturer until it is reconstituted by the addition of sterile physiologic saline. Unused vaccine should be discarded within approximately 1 hour of reconstitution.

RECOMMENDATIONS OF VACCINE USE

Vaccination against yellow fever is recommended for:

1) Persons 6 months of age or older traveling or living in areas where yellow fever infection exists (currently Africa and South America; see *Vaccination for International Travel).*

2) Laboratory personnel who might be exposed to virulent yellow fever virus.

Vaccination for International Travel

To be acceptable for purposes of international travel, yellow fever vaccines must be approved by the World Health Organization and administered at a Yellow Fever Vaccination Center listed with WHO. Vaccinees should have an International Certificate of Vaccination filled in, signed, and validated with the stamp of the Center where the vaccination is administered. (Yellow Fever Vaccination Centers in the United States are designated by the Foreign Quarantine Program of the Public Health Service*).

Vaccination for international travel may be required under circumstances other than those included in these recommendations. A number of countries in Africa and South America require evidence of vaccination from all entering travelers; some may waive the requirement for travelers coming from non-infected areas and staying less than 2 weeks. These requirements may change, so that travelers should seek current information from health departments and travel agencies.

Some countries require an individual, even if only in transit, to have a valid International Certificate of Vaccination if he has been in countries either known or thought to harbor yellow fever virus. This applies particularly to travelers to South and Southeast Asia by way of the Atlantic.

Vaccination Schedule

Primary Vaccination: A single subcutaneous injection of 0.5 ml. of reconstituted vaccine for both adults and children.

Revaccination: Yellow fever immunity following vaccination with 17D strain virus has been shown to persist for more than 10 years; the International Sanitary Regulations do not require revaccination more frequently than every 10 years.

Reactions

The few reactions to 17D yellow fever vaccine that occur are generally mild. Five to ten percent of vaccinees have mild headache, myalgia, low-grade fever, or other minor symptoms 5-10 days after vaccination. Symptoms cause less than 0.2 percent to curtail regular activities. Only two cases of encephalitis have been reported in the United States, for more than 34 million doses of vaccine distributed.

Because yellow fever vaccine is prepared from chick embryos, it may induce reactions of varying degrees of severity in individuals hypersensitive to eggs. Experience

*For a list of such centers, see *Immunization Information for International Travel,* PHS Publication No. 384, available from the Supt. of Documents, U.S. Government Printing Office, Washington, D.C. 20402 at 40 cents.

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YELLOW FEVER VACCINE – *(Continued from page 189)*

in the Armed Forces suggests that allergy severe enough to preclude vaccination is very uncommon and occurs only in those who are actually unable to eat eggs.

Precautions and Contraindications

Pregnancy: Although specific information is not available concerning adverse effects of yellow fever vaccine on the developing fetus, it is prudent on theoretical grounds to avoid vaccinating pregnant women.

Altered Immune States: Yellow fever vaccine virus infection might be potentiated by severe underlying diseases, such as leukemia, lymphoma, or generalized malignancy, and by lowered resistance, such as from therapy with steroids, alkylating drugs, antimetabolites, or radiation; therefore, vaccination of such patients should be avoided.

Allergy: Documented hypersensitivity to eggs can be contraindication to vaccination. In making the decision to vaccinate despite a history of egg allergy, a physician must weigh three factors: (1) the nature of the history and of the reported hypersensitivity, (2) the relative risk of exposure to yellow fever, and (3), in the case of international travel, the possible inconvenience from disrupted travel plans.

If international quarantine regulations are the only reason to vaccinate a patient hypersensitive to eggs, efforts should first be made to obtain a waiver. A physician's letter which clearly states the contraindication to vaccination has been acceptable to some governments. (Ideally, it should be written under his letterhead and bear the authenicating stamp used by health departments and official immunization centers to validate International Certificates of Vaccination.) Because this is not uniformly true, however, it is prudent for the traveler to obtain specific and authoritative advice from the country or countries he plans to visit. Their embassies or consulates may be contacted. Subsequent waiver of requirements should be documented by appropriate letters.

Simultaneous Administration of Live Virus Vaccines

There are obvious practical advantages to administering two or more live virus vaccines simultaneously. Data from specific investigations are not yet sufficient to develop comprehensive recommendations on simultaneous use, but a summary of current experience, attitudes, and practices provide useful guidance.

It has been generally recommended that live virus vaccines be given at least 1 month apart whenever possible – the rationale for this being that more frequent and severe adverse reactions as well as diminished antibody responses otherwise might result. Field observations indicate, however, that with simultaneous administration of certain live virus vaccines, results of this type have been minimal or absent. (For example, the third dose of trivalent oral poliovirus vaccine, which is recommended during the second year of life, is commonly given at the same time as smallpox vaccination without evident disadvantage.)

If the theoretically desirable 1-month interval is not feasible, as with the threat of concurrent exposures or disruption of immunization programs, the vaccines should preferably be given on the same day – at different sites for parenteral products. An interval of about 2 days to 2 weeks should be avoided because interference between the vaccine viruses is most likely then.

May 1969

SURVEILLANCE SUMMARY
VIRAL HEPATITIS – United States
Fall and Winter Quarters, Epidemiologic Year 1969

In the United States during the fall quarter of epidemiologic year* (EY) 1969 (September 29, 1968, through December 28, 1968), there were 13,693 cases of viral hepatitis (infectious and serum) reported for an incidence rate of 6.9 cases per 100,000 population. This was a 25 percent increase over the rate of 5.5 (10,804 cases) for the fall quarter of the previous epidemiologic year. Of the nine geographic divisions, seven had rate increases with the East South Central and West South Central Divisions being the only exceptions (Table 1). Increases ranged from 11 percent in the West North Central Division to 73 percent in the New England Division.

Serum hepatitis in the fall quarter of EY 1969 continued its progressive increase noted since it became a separately reportable disease in July 1966. During the fall quarter of EY 1969, 1,420 cases were reported, which is almost twice that of the corresponding quarter of EY 1968. Although each division experienced an increase in the number of reported cases of serum hepatitis during the fall quarter, the Middle Atlantic and Pacific Divisions exhibited the major increases due to contributions from New York City and California in their respective divisions.

In the winter quarter (December 29, 1968-March 29, 1969) of epidemiologic year 1969, there were 13,200 cases of viral hepatitis reported for an incidence of 6.6 cases per 100,000 population (Table 2). This represents a 12 percent increase over the rate of 5.9 (11,707 cases) for the corresponding quarter of the previous year. However, for the first time since July 1952, when hepatitis morbidity data were first reported to the NCDC, the winter quarter exhibited a decline in incidence from the previous fall quarter. Six of the nine geographic divisions experienced rate increases ranging from only 2 percent in the Mountain to 103 percent in the New England Division, which again had the highest rate increase. As in the fall quarter, the

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Table 1
Reported Cases and Incidence of Viral Hepatitis by Geographic Divisions, Fall Quarters EY* 1969 and 1968

Geographic Division	Fall Quarter Oct. 1, 1967 – Dec. 30, 1967				Fall Quarter Sept. 29, 1968 – Dec. 28, 1968				Change from Fall Quarter EY 1968 to Fall Quarter EY 1969	
	Cases				Cases					
	Infectious	Serum	Total	Rate**	Infectious	Serum	Total	Rate**	Cases	Percent Change in Rate
United States	10,045	759	10,804	5.5	12,273	1,420	13,693	6.9	+2,889	+25
New England	454	15	469	4.1	728	84	812	7.1	+343	+73
Middle Atlantic	1,707	264	1,971	5.4	2,129	494	2,623	7.1	+652	+31
East North Central	1,589	28	1,617	4.1	1,909	63	1,972	5.0	+355	+22
West North Central	587	6	593	3.7	637	15	652	4.1	+59	+11
South Atlantic	1,018	30	1,048	3.5	1,375	88	1,463	4.9	+415	+40
East South Central	744	8	752	5.8	719	17	736	5.6	-16	-3
West South Central	934	26	960	5.0	835	31	866	4.5	-94	-10
Mountain	457	2	459	5.8	543	20	563	7.1	+104	+22
Pacific	2,555	380	2,935	11.7	3,398	608	4,006	15.7	+1,071	+34

*Epidemiologic Year
**Rate per 100,000 population based on U.S. Census mid-year estimates July 1, 1967, and July 1, 1968.

Table 2
Reported Cases and Incidence of Viral Hepatitis by Geographic Divisions, Winter Quarters EY 1969 and 1968

Geographic Division	Winter Quarter Dec. 31, 1967 – March 30, 1968				Winter Quarter Dec. 29, 1968 – March 29, 1969				Change from Winter Quarter EY 1968 to Winter Quarter EY 1969	
	Cases				Cases					
	Infectious	Serum	Total	Rate*	Infectious	Serum	Total	Rate*	Cases	Percent Change in Rate
United States	10,792	915	11,707	5.9	11,900	1,300	13,200	6.6	+1,493	+12
New England	422	29	451	4.0	856	69	925	8.1	+474	+103
Middle Atlantic	1,514	276	1,790	4.9	1,985	501	2,486	6.7	+696	+37
East North Central	1,819	26	1,845	4.7	2,002	101	2,103	5.3	+258	+13
West North Central	705	10	715	4.5	505	17	522	3.3	-193	-27
South Atlantic	1,002	34	1,036	3.5	1,164	59	1,223	4.1	+187	+17
East South Central	933	5	938	7.2	845	4	849	6.5	-89	-10
West South Central	1,020	15	1,035	5.4	994	20	1,014	5.3	-21	-2
Mountain	509	6	515	6.6	521	13	534	6.7	+19	+2
Pacific	2,868	514	3,382	13.4	3,028	516	3,544	13.9	+162	+4

*Rate per 100,000 population based on U.S. Census mid-year estimate, July 1, 1967, and July 1, 1968.

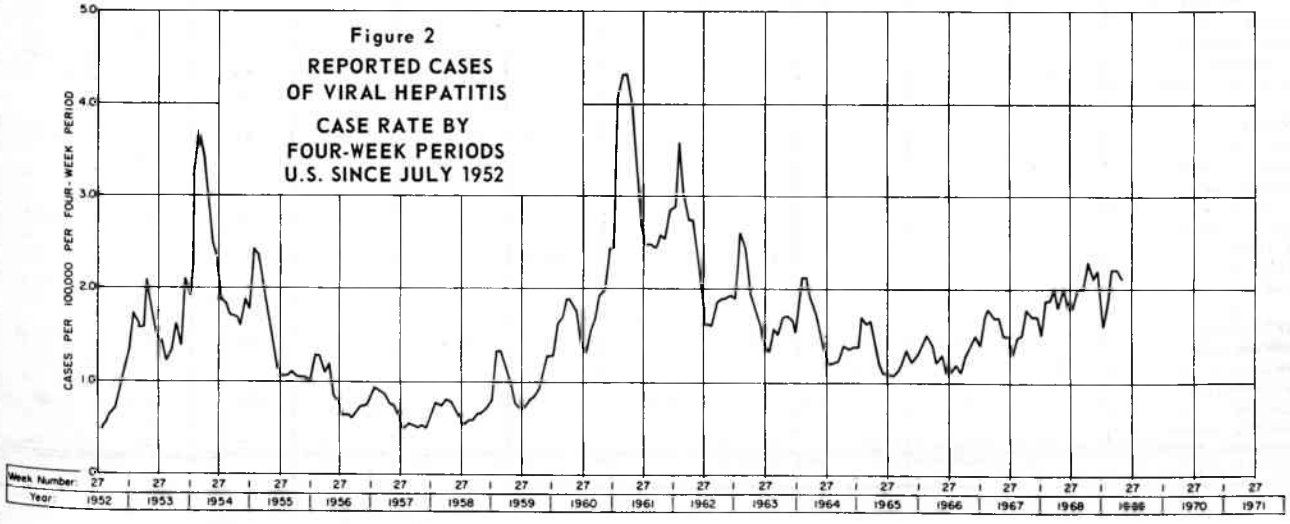

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

MAY 31, 1969 AND JUNE 1, 1968 (22nd WEEK)

AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	DIPHTHERIA	ENCEPHALITIS			HEPATITIS			MALARIA	
				Primary including unsp. cases		Post-Infectious	Serum	Infectious			
	1969	1969	1969	1969	1968	1969	1969	1969	1968	1969	Cum. 1969
UNITED STATES...	23	8	1	19	14	9	78	787	821	47	1,110
NEW ENGLAND.....	1	–	–	1	3	–	1	54	37	–	39
Maine.....*	–	–	–	–	–	–	–	–	3	–	2
New Hampshire.....	–	–	–	–	1	–	–	1	–	–	2
Vermont.....	–	–	–	–	–	–	–	4	–	–	–
Massachusetts.....	–	–	–	–	2	–	–	19	15	–	30
Rhode Island.....	1	–	–	–	–	–	–	19	10	–	1
Connecticut.....	–	–	–	1	–	–	1	11	9	–	4
MIDDLE ATLANTIC.....	8	–	–	1	1	3	20	112	105	9	126
New York City.....	2	–	–	–	–	–	14	42	34	–	9
New York, up-State.	–	–	–	–	1	–	2	20	18	–	22
New Jersey.....	6	–	–	–	–	–	3	18	30	2	44
Pennsylvania.....	–	–	–	1	–	3	1	32	23	7	51
EAST NORTH CENTRAL...	1	–	–	10	4	–	16	134	199	2	94
Ohio.....	–	–	–	7	2	–	2	25	44	–	10
Indiana.....	–	–	–	1	–	–	–	9	12	–	7
Illinois.....	–	–	–	1	–	–	4	41	26	–	46
Michigan.....	1	–	–	1	2	–	10	49	109	2	30
Wisconsin.....	–	–	–	–	–	–	–	10	8	–	1
WEST NORTH CENTRAL...	1	2	–	–	–	1	–	34	30	4	77
Minnesota.....	1	–	–	–	–	1	–	10	4	–	7
Iowa.....	–	2	–	–	–	–	–	5	5	–	5
Missouri.....	–	–	–	–	–	–	–	10	3	–	23
North Dakota.....	–	–	–	–	–	–	–	–	–	–	2
South Dakota.....	–	–	–	–	–	–	–	–	3	–	–
Nebraska.....	–	–	–	–	–	–	–	1	3	–	3
Kansas.....	–	–	–	–	–	–	–	8	12	4	37
SOUTH ATLANTIC.....	3	3	–	3	2	–	10	103	84	10	356
Delaware.....	–	–	–	–	–	–	–	1	4	–	2
Maryland.....	–	–	–	–	–	–	3	9	10	–	10
Dist. of Columbia..	–	–	–	–	–	–	–	–	–	–	1
Virginia.....	–	–	–	–	–	–	1	5	9	1	15
West Virginia.....	–	–	–	–	–	–	1	1	4	–	–
North Carolina.....	–	1	–	–	1	–	–	20	5	7	162
South Carolina.....	–	–	–	–	–	–	–	4	–	2	29
Georgia.....	–	1	–	–	–	–	–	19	39	–	119
Florida.....	3	1	–	3	1	–	5	44	13	–	18
EAST SOUTH CENTRAL...	1	–	–	–	1	1	2	47	54	–	32
Kentucky.....	–	–	–	–	–	–	–	12	26	–	26
Tennessee.....	1	–	–	–	1	1	–	15	15	–	–
Alabama.....	–	–	–	–	–	–	2	8	2	–	6
Mississippi.....	–	–	–	–	–	–	–	12	11	–	–
WEST SOUTH CENTRAL...	–	–	–	–	2	–	3	80	73	2	32
Arkansas.....	–	–	–	–	–	–	–	1	2	–	5
Louisiana.....	–	–	–	–	2	–	2	23	14	2	24
Oklahoma.....	–	–	–	–	–	–	–	2	16	–	3
Texas.....	–	–	–	–	–	–	1	54	41	–	–
MOUNTAIN.....	–	–	–	2	–	1	2	24	42	4	76
Montana.....	–	–	–	2	–	–	–	3	10	–	–
Idaho.....	–	–	–	–	–	–	–	–	–	–	2
Wyoming.....	–	–	–	–	–	1	–	1	1	–	–
Colorado.....	–	–	–	–	–	–	–	7	16	4	68
New Mexico.....	–	–	–	–	–	–	–	3	3	–	4
Arizona.....	–	–	–	–	–	–	2	5	4	–	1
Utah.....	–	–	–	–	–	–	–	5	8	–	1
Nevada.....	–	–	–	–	–	–	–	–	–	–	–
PACIFIC.....	8	3	1	2	1	3	24	199	197	16	278
Washington.....	2	–	1	–	–	–	–	18	27	–	5
Oregon.....	1	–	–	–	–	–	–	12	7	–	6
California.....	3	3	–	2	1	3	24	167	163	8	215
Alaska.....	1	–	–	–	–	–	–	1	–	–	1
Hawaii.....	1	–	–	–	–	–	–	1	–	8	51
Puerto Rico..*	---	---	---	---	–	---	---	---	21	---	1

*Delayed reports: Hepatitis, infectious: Me. 1, P.R. 2

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED
MAY 31, 1969 AND JUNE 1, 1968 (22nd WEEK) - CONTINUED

AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			MUMPS	POLIOMYELITIS			RUBELLA
		Cumulative			Cumulative			Total	Paralytic		
	1969	1969	1968	1969	1969	1968	1969	1969	1969	Cum. 1969	1969
UNITED STATES...	625	15,126	15,229	58	1,828	1,473	2,176	–	–	2	2,215
NEW ENGLAND.....	31	739	775	2	59	75	274	–	–	–	160
Maine.....*	–	4	30	–	5	6	16	–	–	–	9
New Hampshire.....	6	216	113	–	1	7	3	–	–	–	3
Vermont.....	–	2	1	–	–	1	1	–	–	–	7
Massachusetts.*...	9	139	229	1	27	33	117	–	–	–	53
Rhode Island.....	–	9	1	1	5	7	25	–	–	–	9
Connecticut.....	16	369	401	–	21	21	112	–	–	–	79
MIDDLE ATLANTIC.....	247	5,443	2,525	15	286	247	187	–	–	–	101
New York City.....	157	3,761	1,043	2	51	47	127	–	–	–	42
New York, Up-State.	18	466	971	1	46	40	NN	–	–	–	24
New Jersey.....	24	602	424	7	126	90	60	–	–	–	23
Pennsylvania.....	48	614	87	5	63	70	NN	–	–	–	12
EAST NORTH CENTRAL...	79	1,552	3,173	11	241	163	512	–	–	–	637
Ohio.....	19	251	252	3	83	44	65	–	–	–	57
Indiana....*.....	5	436	564	2	29	19	57	–	–	–	96
Illinois.....	24	288	1,201	–	39	39	99	–	–	–	165
Michigan.....	10	146	202	6	74	48	107	–	–	–	176
Wisconsin.....	21	431	954	–	16	13	184	–	–	–	143
WEST NORTH CENTRAL...	24	426	317	3	96	76	120	–	–	–	112
Minnesota.....	–	2	13	1	17	17	9	–	–	–	4
Iowa.....	13	270	77	1	11	5	73	–	–	–	92
Missouri.....	1	19	73	1	44	26	12	–	–	–	4
North Dakota.....	1	7	109	–	–	3	3	–	–	–	4
South Dakota.....	–	1	4	–	1	4	NN	–	–	–	–
Nebraska.....	9	123	33	–	9	6	14	–	–	–	6
Kansas.....	–	4	8	–	14	15	9	–	–	–	2
SOUTH ATLANTIC.....	53	2,075	1,135	8	324	312	193	–	–	–	346
Delaware.....	14	263	11	–	4	4	1	–	–	–	1
Maryland.....	1	31	72	1	31	21	8	–	–	–	17
Dist. of Columbia*.	–	1	6	–	9	11	1	–	–	–	4
Virginia.....	–	854	228	1	37	22	20	–	–	–	90
West Virginia.....	–	156	181	–	14	7	60	–	–	–	87
North Carolina.....	17	196	261	4	55	62	NN	–	–	–	–
South Carolina.....	3	100	12	1	47	54	7	–	–	–	3
Georgia.....	–	1	3	–	56	58	–	–	–	–	–
Florida.....	18	473	361	1	71	73	96	–	–	–	144
EAST SOUTH CENTRAL...	4	77	386	4	108	128	55	–	–	–	148
Kentucky.....	4	43	87	–	38	48	9	–	–	–	67
Tennessee.....	–	15	53	1	40	44	41	–	–	–	75
Alabama.....	–	1	62	–	17	18	1	–	–	–	3
Mississippi.....	–	18	184	3	13	18	4	–	–	–	3
WEST SOUTH CENTRAL...	119	3,482	4,057	9	258	255	260	–	–	2	151
Arkansas...*.....	–	29	2	–	27	15	–	–	–	–	–
Louisiana..*.....	3	103	2	–	70	67	–	–	–	–	–
Oklahoma.....	3	119	105	1	25	48	60	–	–	–	38
Texas.....	113	3,231	3,948	8	136	125	200	–	–	2	113
MOUNTAIN.....	27	512	776	–	34	24	66	–	–	–	112
Montana.....	–	8	57	–	4	2	4	–	–	–	–
Idaho.....	1	48	12	–	6	10	7	–	–	–	1
Wyoming.....	–	–	48	–	–	–	–	–	–	–	3
Colorado.....	4	104	390	–	6	7	9	–	–	–	55
New Mexico.....	2	176	77	–	6	–	12	–	–	–	16
Arizona.....	20	172	168	–	8	1	34	–	–	–	37
Utah.....	–	3	19	–	2	1	–	–	–	–	–
Nevada.....	–	1	5	–	2	3	–	–	–	–	–
PACIFIC.....	41	820	2,085	6	422	193	509	–	–	–	448
Washington.....	–	53	488	–	50	32	144	–	–	–	80
Oregon.....	5	172	404	–	10	16	3	–	–	–	49
California.....	36	565	1,158	6	343	135	277	–	–	–	278
Alaska.....	–	11	1	–	11	–	71	–	–	–	25
Hawaii.....	–	19	34	–	8	10	14	–	–	–	16
Puerto Rico.....	---	654	302	---	13	17	---	---	---	–	---

*Delayed reports: Measles: Mass. delete 8, D.C. delete 1, Ark. 13
Meningococcal infections: Ind. delete 1, La. delete 1
Mumps: Me. 9
Rubella: Me. 34

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

MAY 31, 1969 AND JUNE 1, 1968 (22nd WEEK) - CONTINUED

AREA	STREPTOCOCCAL SORE THROAT & SCARLET FEVER	TETANUS		TULAREMIA		TYPHOID FEVER		TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted)		RABIES IN ANIMALS	
	1969	1969	Cum. 1969	1969	Cum. 1969	1969	Cum. 1969	1969	Cum. 1969	1969	Cum. 1969
UNITED STATES...	6,357	3	49	2	53	9	119	28	74	49	1,636
NEW ENGLAND.....	1,274	–	–	–	4	–	2	–	–	1	6
Maine...*.....	19	–	–	–	–	–	1	–	–	–	4
New Hampshire.....	1	–	–	–	–	–	–	–	–	–	–
Vermont.....	1	–	–	–	4	–	–	–	–	–	1
Massachusetts.....	182	–	–	–	–	–	1	–	–	–	–
Rhode Island.....	71	–	–	–	–	–	–	–	–	–	–
Connecticut.....	1,000	–	–	–	–	–	–	–	–	1	1
MIDDLE ATLANTIC.....	529	1	7	–	2	–	12	1	4	5	52
New York City.....	44	1	5	–	1	–	6	–	–	–	–
New York, Up-State.	462	–	2	–	1	–	4	–	–	5	49
New Jersey.....	NN	–	–	–	–	–	–	–	–	–	–
Pennsylvania.....	23	–	–	–	–	–	2	1	4	–	3
EAST NORTH CENTRAL...	630	–	7	1	4	–	10	–	–	4	101
Ohio.....	66	–	–	–	–	–	6	–	–	2	30
Indiana.....	108	–	–	–	1	–	–	–	–	1	28
Illinois.....	193	–	5	1	2	–	1	–	–	1	18
Michigan.....	167	–	2	–	–	–	3	–	–	–	2
Wisconsin.....	96	–	–	–	1	–	–	–	–	–	23
WEST NORTH CENTRAL...	143	–	2	–	6	–	4	–	1	11	289
Minnesota.....	9	–	–	–	–	–	1	–	–	2	74
Iowa.....	38	–	–	–	–	–	–	–	–	–	39
Missouri.....	14	–	–	–	3	–	2	–	–	1	91
North Dakota.....	48	–	–	–	–	–	–	–	–	2	37
South Dakota.....	16	–	–	–	–	–	–	–	1	–	13
Nebraska.....	9	–	–	–	–	–	1	–	–	1	9
Kansas..*.....	9	–	2	–	3	–	–	–	–	5	26
SOUTH ATLANTIC.....	732	–	10	1	16	3	19	18	35	7	469
Delaware.....	9	–	–	–	–	–	1	–	–	–	–
Maryland.....	137	–	–	–	–	1	3	4	8	–	–
Dist. of Columbia..	–	–	2	–	–	–	1	–	–	–	–
Virginia.....	199	–	–	1	1	–	–	7	9	2	250
West Virginia.....	110	–	1	–	2	–	1	–	3	3	73
North Carolina.....	4	–	1	–	5	–	3	5	13	–	4
South Carolina.....	80	–	1	–	2	–	1	2	2	–	–
Georgia.....	5	–	–	–	2	2	7	–	–	–	38
Florida.....	188	–	5	–	4	–	2	–	–	2	104
EAST SOUTH CENTRAL...	821	–	4	–	8	1	12	2	16	6	272
Kentucky.....	47	–	2	–	–	–	2	–	1	2	150
Tennessee.....	648	–	2	–	7	–	8	2	14	4	93
Alabama.....	110	–	–	–	–	–	–	–	1	–	29
Mississippi.....	16	–	–	–	1	1	2	–	–	–	–
WEST SOUTH CENTRAL...	340	1	13	–	6	1	17	5	11	7	220
Arkansas.....	1	–	–	–	1	1	8	1	3	–	17
Louisiana.....	–	–	5	–	–	–	–	–	–	–	13
Oklahoma.....	53	–	1	–	4	–	–	4	6	1	36
Texas.....	286	1	7	–	1	–	9	–	2	6	154
MOUNTAIN.....	1,107	–	–	–	7	3	17	1	5	4	71
Montana.....	17	–	–	–	–	–	–	–	–	–	–
Idaho.....	124	–	–	–	–	1	1	–	–	–	–
Wyoming.....	8	–	–	–	2	–	5	–	–	–	40
Colorado.....	727	–	–	–	–	–	2	1	5	–	2
New Mexico.....	86	–	–	–	1	–	5	–	–	1	8
Arizona.....	80	–	–	–	–	2	3	–	–	3	17
Utah.....	65	–	–	–	4	–	–	–	–	–	1
Nevada.....	–	–	–	–	–	–	1	–	–	–	3
PACIFIC.....	781	1	6	–	–	1	26	1	2	4	156
Washington.....	627	–	1	–	–	–	1	1	1	–	–
Oregon.....	57	–	–	–	–	–	6	–	–	–	–
California.....	---	1	5	–	–	1	19	–	1	4	156
Alaska.....	25	–	–	–	–	–	–	–	–	–	–
Hawaii.....	72	–	–	–	–	–	–	–	–	–	–
Puerto Rico.....	---	---	2	---	–	---	3	---	–	---	12

*Delayed report: SST: Me. 5, Kans. 101

Week No. 22

TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED MAY 31, 1969

(By place of occurrence and week of filing certificate. Excludes fetal deaths)

Area	All Causes		Pneumonia and Influenza	Under 1 year
	All Ages	65 years and over	All Ages	All Causes
NEW ENGLAND:	672	391	40	32
Boston, Mass.	207	101	9	17
Bridgeport, Conn.	39	27	3	1
Cambridge, Mass.	28	15	6	–
Fall River, Mass.	25	19	1	–
Hartford, Conn.	51	31	1	1
Lowell, Mass.	39	25	2	1
Lynn, Mass.	15	12	1	–
New Bedford, Mass.	32	24	1	1
New Haven, Conn.	40	19	1	3
Providence, R. I.	59	29	2	4
Somerville, Mass.	11	9	2	–
Springfield, Mass.	49	30	5	2
Waterbury, Conn.	29	14	–	2
Worcester, Mass.	48	36	6	–
MIDDLE ATLANTIC:	2,925	1,700	113	144
Albany, N. Y.	31	18	1	2
Allentown, Pa.	39	25	1	1
Buffalo, N. Y.	134	72	3	7
Camden, N. J.	30	15	2	1
Elizabeth, N. J.	33	17	–	–
Erie, Pa.	43	28	3	2
Jersey City, N. J.	61	31	5	3
Newark, N. J.	67	34	3	8
New York City, N. Y.	1,445	862	48	61
Paterson, N. J.	32	17	4	2
Philadelphia, Pa.	499	285	7	18
Pittsburgh, Pa.	144	76	11	7
Reading, Pa.	47	31	2	14
Rochester, N. Y.	103	62	4	5
Schenectady, N. Y.	14	8	2	–
Scranton, Pa.	36	22	2	3
Syracuse, N. Y.	75	44	5	3
Trenton, N. J.	41	24	6	5
Utica, N. Y.	25	13	2	1
Yonkers, N. Y.	26	16	2	1
EAST NORTH CENTRAL:	2,444	1,395	65	108
Akron, Ohio	55	29	–	5
Canton, Ohio	49	30	1	3
Chicago, Ill.	780	439	26	34
Cincinnati, Ohio	121	79	1	3
Cleveland, Ohio	149	79	4	8
Columbus, Ohio	104	46	–	5
Dayton, Ohio	72	35	1	5
Detroit, Mich.	356	197	6	20
Evansville, Ind.	30	22	–	1
Flint, Mich.	52	28	–	2
Fort Wayne, Ind.	33	22	1	2
Gary, Ind.	24	11	2	1
Grand Rapids, Mich.	50	35	5	–
Indianapolis, Ind.	164	89	5	6
Madison, Wis.	14	5	3	2
Milwaukee, Wis.	139	94	1	1
Peoria, Ill.	44	28	1	2
Rockford, Ill.	24	11	3	–
South Bend, Ind.	37	24	1	3
Toledo, Ohio	95	60	3	1
Youngstown, Ohio	52	32	1	4
WEST NORTH CENTRAL:	735	446	27	40
Des Moines, Iowa	48	34	3	5
Duluth, Minn.	14	10	3	–
Kansas City, Kans.	37	25	2	2
Kansas City, Mo.	120	64	4	3
Lincoln, Nebr.	18	16	–	–
Minneapolis, Minn.	110	76	3	6
Omaha, Nebr.	62	36	1	3
St. Louis, Mo.	212	118	3	14
St. Paul, Minn.	45	26	2	2
Wichita, Kans.	69	41	6	5
SOUTH ATLANTIC:	1,049	549	29	54
Atlanta, Ga.	118	53	2	6
Baltimore, Md.	245	124	5	9
Charlotte, N. C.	41	23	3	1
Jacksonville, Fla.	64	31	3	6
Miami, Fla.	81	41	–	5
Norfolk, Va.	43	22	3	1
Richmond, Va.	77	45	2	1
Savannah, Ga.	24	11	–	1
St. Petersburg, Fla.	90	75	3	3
Tampa, Fla.	66	26	3	6
Washington, D. C.	160	77	4	13
Wilmington, Del.	40	21	1	2
EAST SOUTH CENTRAL:	602	315	26	23
Birmingham, Ala.	98	50	2	8
Chattanooga, Tenn.	42	23	6	–
Knoxville, Tenn.	29	22	3	–
Louisville, Ky.	97	58	9	3
Memphis, Tenn.	145	76	2	7
Mobile, Ala.	45	17	1	1
Montgomery, Ala.	39	18	2	1
Nashville, Tenn.	107	51	1	3
WEST SOUTH CENTRAL:	1,065	561	29	52
Austin, Tex.	34	23	3	2
Baton Rouge, La.	22	10	–	2
Corpus Christi, Tex.	25	13	1	3
Dallas, Tex.	203	104	3	8
El Paso, Tex.	44	22	2	7
Fort Worth, Tex.	76	43	1	1
Houston, Tex.	197	90	4	5
Little Rock, Ark.	36	18	2	2
New Orleans, La.	151	78	1	3
Oklahoma City, Okla.	68	42	–	4
San Antonio, Tex.	100	53	2	10
Shreveport, La.	56	30	5	2
Tulsa, Okla.	53	35	5	3
MOUNTAIN:	428	251	13	25
Albuquerque, N. Mex.	30	14	2	4
Colorado Springs, Colo.	23	12	3	–
Denver, Colo.	114	63	2	2
Ogden, Utah	19	14	1	–
Phoenix, Ariz.	117	69	2	11
Pueblo, Colo.	13	8	1	–
Salt Lake City, Utah	57	40	1	3
Tucson, Ariz.	55	31	1	5
PACIFIC:	1,356	851	22	44
Berkeley, Calif.	13	9	–	–
Fresno, Calif.	41	19	–	6
Glendale, Calif.	18	14	1	1
Honolulu, Hawaii	47	25	1	3
Long Beach, Calif.	88	47	1	1
Los Angeles, Calif.	356	227	4	5
Oakland, Calif.	63	34	–	2
Pasadena, Calif.	31	22	1	1
Portland, Oreg.	151	98	4	3
Sacramento, Calif.	52	35	–	1
San Diego, Calif.	94	62	3	6
San Francisco, Calif.	179	118	4	6
San Jose, Calif.	35	20	–	1
Seattle, Wash.	99	52	2	6
Spokane, Wash.	47	38	1	2
Tacoma, Wash.	42	31	–	–
Total	11,276	6,459	364	522

*Estimate - based on average percent of divisional total.

Cumulative Totals
including reported corrections for previous weeks

All Causes, All Ages	299,754
All Causes, Age 65 and over	173,474
Pneumonia and Influenza, All Ages	16,413
All Causes, Under 1 Year of Age	13,546

VIRAL HEPATITIS – *(Continued from page 190)*

East South Central and West South Central Divisions exhibited rate decreases; in addition, the West North Central had a decrease in rate of 27 percent.

The number of cases reported as serum hepatitis (1,300) for the winter quarter of epidemiologic year 1969 was significantly higher than the 915 cases reported during the corresponding quarter of the previous year. However, this was the first quarter since July 1966 that the number of cases did not exceed that of the preceeding quarter (1,420 cases, Table 1).

The pattern of viral hepatitis during the fall and winter quarters of EY 1969 can be seen in relation to previous years in Figure 2. Although a general upward trend in incidence has occurred since EY 1967, this upswing has not been as marked as that experienced prior to the 1961 epidemic peak. It is not possible to predict when or if a peak year in hepatitis morbidity comparable to 1961 will occur.

(Reported by the Hepatitis Section, Viral Diseases Branch, Epidemiology Program, NCDC.)

*Morbidity data are summarized in terms of an "epidemiologic year" which for hepatitis begins with the 27th week of the calendar year.

EPIDEMIOLOGIC NOTES AND REPORTS
FOLLOW-UP BOTULISM – Tarrant County, Texas

On March 31, 1969, in Tarrant County, a 25-year-old man became ill and subsequently developed typical symptoms and signs of botulism (MMWR, Vol. 18, No. 14). Despite treatment with trivalent (A, B, and E) *Clostridium botulinum* antitoxin on April 4, he expired on April 9 with complicating severe pneumonia and respiratory failure. Type A botulism toxin was demonstrated in a pretreatment sample of the patient's serum using the mouse protection test. The isolation from the patient's feces of *C. botulinum* organisms which produced type A toxin *in vitro* provided corroborative evidence.

During the epidemiologic investigation of the case by local officials, over 90 food items were collected for testing in the laboratory. Neither *C. botulinum* organisms nor toxin could be found in any specimens. Although no source for this fatal case of botulism could be found, no subsequent cases developed in Texas during the ensuing 6 weeks.

(Reported by Staff, Tarrant County Health Department; M. S. Dickerson, M.D., Chief, Communicable Disease Services, and J. V. Irons, Sc.D., Director of Laboratories, Texas State Department of Health; Anaerobic Bacteriology Laboratory, Bacterial Reference Unit, Laboratory Division, NCDC; and two EIS Officers.)

ERRATUM, Vol. 18, No. 21, p. 178

In the article "Smallpox" in Table 1, under the country of Chad, under weeks 12, 14, and 15, and under total to date 1969, the numbers 1, 10, 1, and 12 should be changed to 0. No cases of smallpox have been reported from Chad during 1969.

THE MORBIDITY AND MORTALITY WEEKLY REPORT, WITH A CIRCULATION OF 18,500 IS PUBLISHED AT THE NATIONAL COMMUNICABLE DISEASE CENTER, ATLANTA, GEORGIA.

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NOTE: THE DATA IN THIS REPORT ARE PROVISIONAL AND ARE BASED ON WEEKLY TELEGRAMS TO THE NCDC BY THE INDIVIDUAL STATE HEALTH DEPARTMENTS. THE REPORTING WEEK CONCLUDES AT CLOSE OF BUSINESS ON FRIDAY; COMPILED DATA ON A NATIONAL BASIS ARE OFFICIALLY RELEASED TO THE PUBLIC ON THE SUCCEEDING FRIDAY.