CENTER FOR DISEASE CONTROL

Morbidity and Mortality

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WEEKLY REPORT

For Week Ending September 16, 1972

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

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EPIDEMIOLOGIC NOTES AND REPORTS

PROBABLE CIGUATERA POISONING – Alabama

On July 6, 1972, 24 of 25 crew members aboard a Brazilian cargo ship bound for Mobile, Alabama, had sudden onset of severe prostration, dizziness, muscle aches, joint pains in the legs, tingling and burning of the tongue, dryness of the mouth, vomiting, abdominal pain, and profuse, watery diarrhea. Some had perioral numbness, and seven had brief periods of transient blindness or blurred vision in the first 3 hours of illness. All had onset of symptoms ½-6 hours after eating lunch; the mean incubation period was 3.2 hours (Figure 1). When the ship arrived in Mobile on July 7, 20 crew members were hospitalized.

On admission, physical examination showed hyporeflexia in 13 patients and bradycardia in six. Laboratory tests were within normal limits, with the exception of elevated blood urea nitrogens in 14 patients and elevated uric acids in nine. Rectal swab cultures from 10 patients were negative for enteric pathogens. Therapy included rehydration and supportive care. Within 24 hours, significant improvement was noted, and all were discharged within 2½ days after admission. Patients at the time of discharge, 4 days after the onset of illness, had generalized residual weakness, pruritis, and occasional tingling and burning of the mouth. Seven continued to be hyporeflexic.

Epidemiologic investigation revealed that the noon meal on July 6 consisted of a stew made of barracuda, cocoa, and

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TABLE I. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

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

DISEASE	37th WEEK ENDING		MEDIAN 1967-1971	CUMULATIVE, FIRST 37 WEEKS		
	September 16, 1972	September 18, 1971		1972	1971	MEDIAN 1967-1971
Aseptic meningitis	185	199	199	2,455	3,335	2,576
Brucellosis	8	2	5	133	119	153
Chickenpox	297	– – –	– – –	114,249	– – –	– – –
Diphtheria	1	3	9	72	113	113
Encephalitis, primary:						
Arthropod-borne and unspecified	23	36	39	700	1,002	985
Encephalitis, post-infectious	5	1	4	217	279	324
Hepatitis, serum (Hepatitis B)	196	169	95	6,502	6,069	3,706
Hepatitis, infectious (Hepatitis A)	1,067	1,328	1,010	38,884	42,958	32,910
Malaria	12	32	49	692	2,226	2,012
Measles (rubeola)	96	184	134	26,951	69,721	39,621
Meningococcal infections, total	16	12	28	1,014	1,770	1,883
Civilian	15	11	28	974	1,577	1,694
Military	1	1	1	40	193	189
Mumps	327	629	– – –	56,887	99,801	– – –
Rubella (German measles)	71	218	232	20,887	38,583	43,912
Tetanus	5	3	3	81	75	105
Tuberculosis, new active	574	– – –	– – –	23,591	– – –	– – –
Tularemia	3	5	5	101	126	126
Typhoid fever	5	10	12	240	244	244
Typhus, tick-borne (Rky. Mt. spotted fever)	22	11	9	433	348	300
Venereal Diseases:†						
Gonorrhea	14,662	14,202	– – –	520,292	460,649	– – –
Syphilis, primary and secondary	457	465	– – –	17,432	16,729	– – –
Rabies in animals	87	61	60	3,061	3,007	2,558

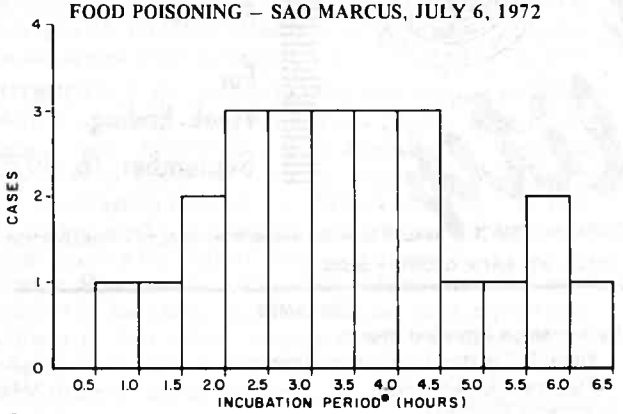
TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	2	Poliomyelitis, total:	9
Botulism:	6	Paralytic:	9
Congenital rubella syndrome:	24	Psittacosis: Minn.-1	28
Leprosy:	87	Rabies in man:	1
Leptospirosis: N.J.-1	27	Trichinosis: Conn.-1	56
Plague:	1	Typhus, murine:	11

†Numbers for 1971 are estimated from quarterly reports to the Venereal Disease Branch, CDC

CIGUATERA POISONING – Continued

Figure 1
FOOD POISONING – SAO MARCUS, JULY 6, 1972



*TIME BETWEEN EATING BARRACUDA ON THURSDAY AND ONSET OF SYMPTOMS

coconut oil, beans, rice, soup, and bread and butter. Food histories obtained from the 25 crew members showed that all 24 crew members who ate the barracuda became ill, for an attack rate of 100%. The only crew member who did not become ill did not eat the barracuda. Other food items were not incriminated as the possible source of the illness because of the wide disparity in items eaten by crew members who later became ill.

Further investigation revealed that the barracuda was caught near Key West, Florida, on July 5. It was refrigerated until the next morning, when the stew was made. Samples of the roe (fish eggs) remaining from the barracuda were tested for toxicity. Results are still pending.

(Reported by Samuel Murphy, M.D., private physician; John E. Cutts, D.V.M., Chief, Lois Hawkins, R.N., Disease Investigator, Division of Epidemiology, G. W. Newburn, M.D., Health Officer, Mobile County Health Department; Frederick S. Wolf, M.D., State Epidemiologist, Alabama Department of Public Health; Col. Hardisety, USA; Floyd Q. Harvey, Officer-in-Charge, U.S. Quarantine Station, Mobile, Alabama; and an EIS Officer.)

Editorial Note

The barracuda has frequently been incriminated in the production of ichthyosarcotoxins in ciguatera poisoning. The strong temporal relationship between the ingestion of the barracuda on July 6 and the onset of symptoms strongly characteristic of ciguatera poisoning lead to the conclusion that the crew suffered from ciguatera poisoning as the result of eating a toxic fish.

SURVEILLANCE SUMMARY

INFLUENZA – United States, 1972

In 1972, influenza was prevalent throughout the United States. In early December 1971, Meriden, Connecticut, first reported laboratory confirmed influenza. By mid-December, a telephone survey to all state health departments showed that influenza-like disease was occurring in 16 states widely scattered throughout the country. By early January, 36 states reported either documented influenza or influenza-like disease. Peak reporting from states occurred at the end of January, and by the end of February a survey of state epidemiologists showed no evidence of significant influenza activity. By this method of reporting, widespread influenza* occurred in the District of Columbia, New York City, Puerto Rico, and 21 states (Figure 2). Regional outbreaks were reported in 14 states, and 14 states reported isolated outbreaks.

Mortality in 122 cities due to all causes for the 1971-72 influenza season is shown in Figure 3. Pneumonia and influenza mortality from these cities was significantly elevated above the epidemic threshold from the second through the seventh week of 1972 (Figure 4). Excess mortality from pneumonia and influenza for this period was 1,900 – greater than the excess mortality reported in the 1970 influenza epidemic.

Nearly all the influenza A isolates were closely related to A/Hong Kong/8/68 (H3N2) by the hemagglutination inhibition test. There were a few isolated outbreaks of influenza B.

Although 49 of 50 states reported influenza this year, attack rates and school absenteeism were relatively low in many areas. In most parts of the country, the clinical illness was less severe than in previous Hong Kong influenza epidemics.

(Reported by the Viral Diseases Branch and the Statistical Services Activity, Epidemiology Program, and the Virology Section, Laboratory Division, CDC.)

Editorial Note

Considering that influenza A2 has commonly occurred in 2-3 year cycles, widespread outbreaks of influenza A2 are not anticipated this year. However, as in other inter-epidemic years, sporadic focal outbreaks may be anticipated.

*The CDC classifies the extent of influenza in 4 categories: 1) Isolated cases, 2) Isolated outbreaks, 3) Regional involvement (outbreaks recognized in contiguous counties, but altogether involving counties comprising less than ½ of the state's population), and 4) Widespread involvement (more than ½ of the counties or more than ½ of the population).

WEEKLY MORTALITY RECORDS

Deaths are reported each week from the Vital Statistics Offices of 122 United States Cities and are recorded in Table IV of the MMWR. They are by place of occurrence of death, thus including deaths of persons whose residence may be elsewhere and not including deaths of residents which occur in other vital statistics jurisdictions. The report is a count of death certificates filed, and each week the deaths recorded include some which occurred the preceding week. The number of delayed certificates usually increases during holiday periods, causing a drop in the number of deaths reported for the holiday week, followed by an increase when the delayed certificates are included in the report during the succeeding weeks.

Graphs based on these data are presented at various times to show the effect of influenza epidemics and heat waves on mortality in these cities. Substantial influenza activity is reflected by a rise in mortality 2-4 weeks after the time when the clinical disease is widespread. These data provide the best available epidemiologic evidence of the extent and severity of an epidemic in the country as a whole.

Expected Mortality and the Epidemic Threshold

Expected mortality is determined by the use of data for prior years to predict the weekly mortality level for the coming year *(1,2,3)*. The method works well in general because

(Text continued on page 317)

Figure 2
INFLUENZA A_2 – 1971-1972

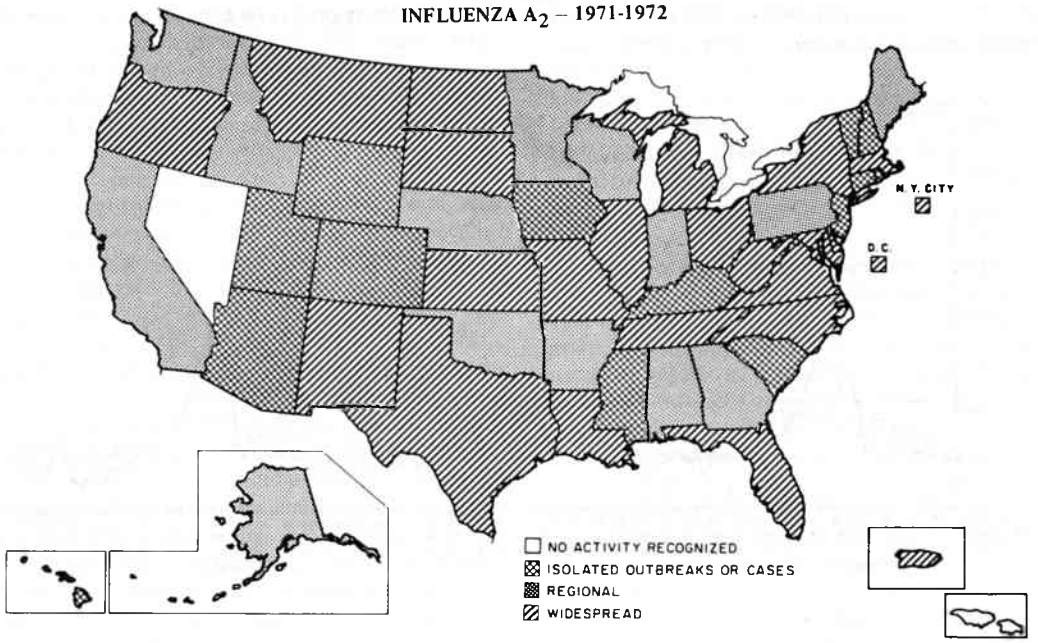


Figure 3
MORTALITY IN 122 UNITED STATES CITIES

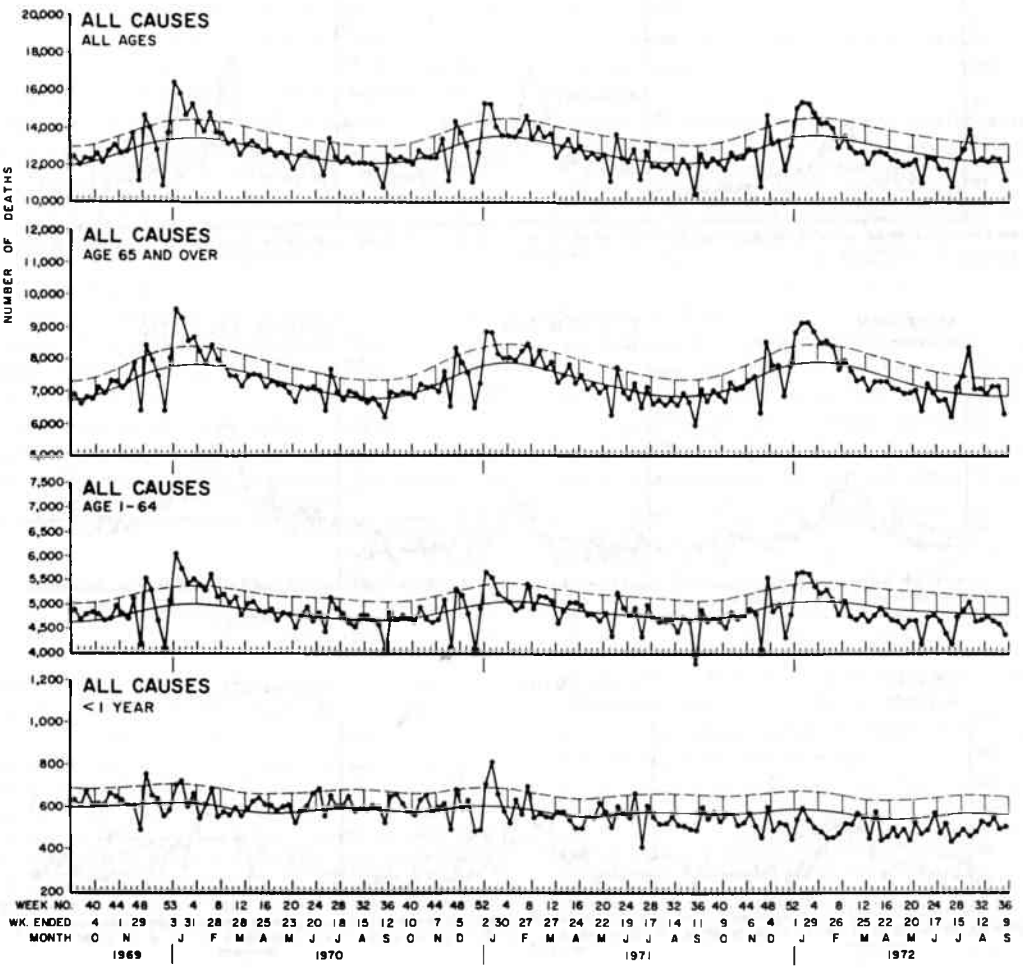
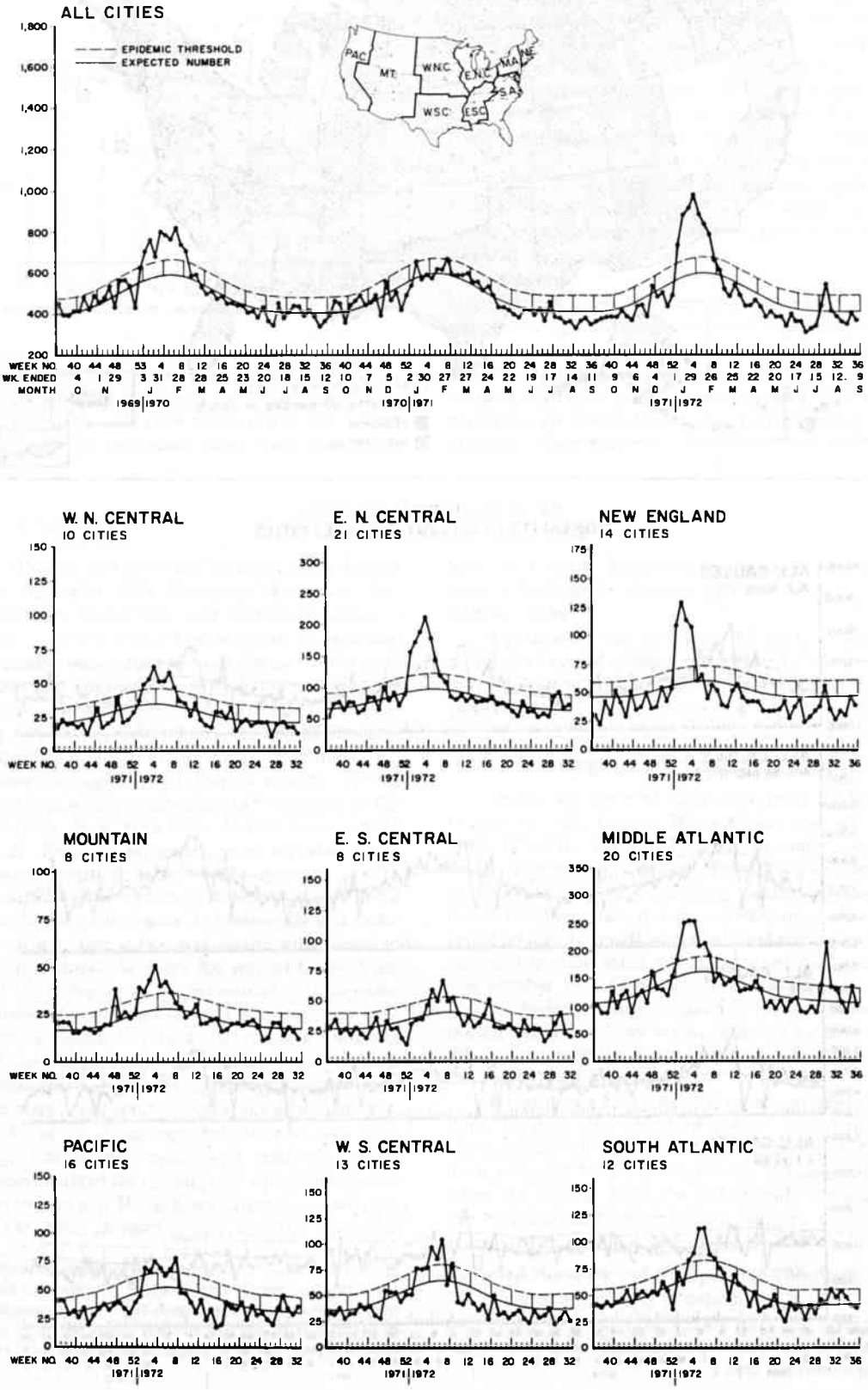


Figure 4
PNEUMONIA-INFLUENZA DEATHS IN 122 UNITED STATES CITIES



INFLUENZA – Continued

the same seasonal pattern is observed each year, the same peaks are observed in years without much influenza activity, and the same nadirs are observed almost every year. The exception to this observation is that over a period of years there is sometimes a general upward or downward trend in mortality. Except for infant mortality, this trend has not been very great in recent years.

The expected mortality level is determined by using weekly data for the previous 4- or 5-year period, omitting data for epidemic periods, and fitting the data to the following model by least squares:

$$\hat{y} = u + rt + A_1 \cos \frac{2\pi t}{52} + B_1 \sin \frac{2\pi t}{52} + A_2 \cos \frac{4\pi t}{52} + B_2 \sin \frac{4\pi t}{52}$$

The expected level is obtained by inserting the appropriate value of t in the equation where t is the number of the week from the beginning of the data which was fitted to the model. This procedure allows for a general mean, a slope, and annual and semi-annual cycles in the data, and omission of epidemic data prevents an inflation of the expected level during the influenza season. Except for resulting in a slightly smoother curve and yielding a standard error which forms the basis of the epidemic threshold and the scale on which the graphs are drawn, the procedure is almost equivalent to averaging the deaths for corresponding weeks over the curve-fitting period and using the average as the expected for the next year.

The error mean square for each curve is obtained by summing the squares of the differences in observed and expected values over the curve-fitting period, omitting the data during epidemic periods, and dividing by the appropriate degrees of freedom. The square root of this is the standard error of the curve fit and is the basis for the epidemic threshold, defined as 1.65 standard errors above the expected. Experience has shown that the deviations between observed and expected values are normally distributed in most instances. Thus, the probability that one observation will exceed the threshold is .05, and the probability that two successive ones will exceed the threshold is approximately $(.05)^2$.

Construction of the Charts

The reported numbers of deaths are shown as dots joined by line segments. The solid line for each mortality category is the expected number of deaths. The dashed line is the "epidemic threshold," a criterion for recognition of significant deviations in excess of the expected number.

The charts are drawn to a scale that allows the distance between the expected and threshold levels to be constant for every curve. This device allows one to compare the influenza activity between regions by glancing at the regional chart. Although the vertical labels are different, comparison of the absolute distance on the chart between observed and threshold levels between regions shows whether the mortality is significantly higher in one region than another. This is accomplished by allowing .3 inches on the original full size chart to represent 1.65 standard errors of measurement for each graph that is drawn.

Discussion

To make as accurate a prediction of expected mortality levels as possible, the curve-fitting procedure is repeated each year utilizing the most current full calendar year of data available and dropping the earliest year used previously. This naturally results in a solution to the above equation which is slightly different from the solution for the previous year. Since certain expected mortality values are now published in Table IV, those who actually graph the values usually discover a slight jump either upward or downward in their graph once each year. The new values are usually published beginning with the 37th week of the year. They do appear in this issue (Table IV, Page 323) and should account for the discontinuities in self-produced graphs.

For the present, Flint, Michigan, has been omitted from the list of cities due to difficulties in obtaining the data. Simultaneously, Las Vegas, Nevada, has been added to the Mountain region. This change in the data base may affect the expected values slightly, as does refitting the curves each year.

(Reported by the Statistical Services Activity, Epidemiology Program, CDC.)

References

1. Collins SD, Lehmann J: Excess deaths from Influenza and Pneumonia and from Important Chronic Diseases During Epidemic Periods, 1918-51, Public Health Monogr 10 (PHS Publication 213), US Government Printing Office, Washington, DC, 1953
2. Serfling RE: Methods for Current Statistical Analysis of Excess Pneumonia-Influenza Deaths. Public Health Rep 78:494-506, 1963
3. Serfling RE: The Current Mortality Chart. MMWR, 14:1, 1965, pp 8-11

Editorial Comment

This long-standing mortality reporting system provides the most current mortality data available for publication and use in the United States. As with all surveillance data of this kind, its effective use is totally dependent upon the regular and continuing cooperation of the local health departments, whose contributions are acknowledged with appreciation.

CURRENT TRENDS
NEW NATIONAL RECOMMENDATIONS FOR ANIMAL RABIES VACCINATION
A Statement by the Rabies Subcommittee[1] of the Animal Health Committee NATIONAL RESEARCH COUNCIL–NATIONAL ACADEMY OF SCIENCES

The vaccine compendium (Table 1) was developed in 1971-1972 by the Rabies Subcommittee, Animal Health Committee, National Research Council-National Academy of Sciences (NRC-NAS). Its purpose is to provide the information on rabies vaccine needed by practicing veterinarians and officials in rabies control throughout the United States. It lists all types of rabies vaccine licensed, the names of companies that make each type, and the regimens of vaccination recommended for each type as well as the duration of immunity each vaccine produces. It should be noted that some companies which have licenses for certain types of vaccine are not actually producing them.

These recommendations for animal rabies vaccination

(Continued on page 324)

[1]The Members of the NRC-NAS Rabies Subcommittee are Peter Kennedy, D.V.M., Chairman, Department of Pathology, School of Veterinary Medicine, University of California at Davis, Victor Cabasso, Ph.D., Associate Director of Research, Cutter Laboratories, Berkeley, California, David Davis, Ph.D., Head of Zoology, North Carolina State University, Raleigh, North Carolina, Keith Sikes, D.V.M., Veterinary Epidemiologist, CDC and Georgia Department of Human Resources, and Charles York, D.V.M., University of Southern California at San Diego.

Table 1
COMPENDIUM OF ANIMAL RABIES VACCINES

	COMPANIES WITH LICENSE		FOR USE IN	REGIMEN RECOMMENDED				DURATION OF IMMUNITY
	NOT CURRENTLY MARKETED	CURRENTLY MARKETED		PRIMARY IMMUNIZATION			BOOSTER	
				DOSE(S)	ANIMAL'S AGE	ROUTE		
LIVE VACCINES LICENSED IN U.S.A.								
Chick Embryo Origin								
Low Egg Passage (LEP), Flury (FL)	Lederle; Pitman-Moore; Ft. Dodge; American Hoechst	Haver-Lockhart; Fromm; Diamond; Affiliated; Amerlab	Dogs	1 dose of 2 ml	3-4 mos. & 1 yr. of age	IM	2 ml every 3 yrs.	3 Yrs.
High Egg Passage (HEP), (FL)	Lederle; Haver-Lockhart		Cattle and Cats	Not available for use				
Tissue Culture Origin								
Canine Kidney (HEP), (FL)		Norden (Endurall-R)	Dogs	1 dose of 1 ml	3-4 mos. & 1 yr. of age	IM	1 ml every 3 yrs.	3 Yrs.
			Cats	1 dose of 1 ml	3 mos.	IM	1 ml Annually	1 Yr.
			Cattle	2 doses of 1 ml each 6 weeks apart	as required	IM	1 ml Annually	1 Yr.
Porcine Kidney (ERA)		Jen-Sal (ERA) Connaught (ERA)	Dogs	1 dose of 2 ml	3-4 mos. & 1 yr. of age	IM	2 ml every 3 yrs.	3 Yrs.
			Cats	1 dose of 2 ml	3 mos.	IM	2 ml Annually	1 Yr.
			Cattle	1 dose of 2 ml	4 mos.	IM	2 ml every 4 years.	4 Yrs.
			Horses	1 dose of 2 ml	4 mos.	IM	2 ml every 2 yrs.	2 Yrs.
			Sheep and Goats	1 dose of 2 ml	4 mos.	IM	2 ml Annually	1 Yr.
Chick Embryo (LEP), (FL)	Lederle	Pitman-Moore (Raflurax)	Dogs	1 dose of 1 ml	3-4 mos. & 1 yr. of age	IM	1 ml every 3 yrs.	3 Yrs.

Tissue Culture Origin *Primary Hamster Kidney* *(Fixed Virus) with adjuvant*		*Ft. Dodge* *(Barab)*	*Dogs*	*(2 doses)* 2 ml/dose	*1st dose @* 3-4 mo. 2nd dose 3-4 wks later	*SC or IM*	*2 ml Annually*	*1 Yr.*
			Cats	(2 doses) 1 ml/dose	Same as for dogs	SC or IM	1 ml Annually	1 Yr.
			Cattle and Horses	(2 doses) 4 ml/dose	as indicated	SC or IM	4 ml Annually	1 Yr.
Primary Hamster Kidney (Fixed Virus) without adjuvant		Jen-Sal (Cytorab) Biotec (Biorab) Doug-Vac (Anagen R)	Dogs	(2 doses) 2 ml/dose	1st dose @ 3-4 mo. 2nd dose 3-4 wks later	SC or IM	2 ml Annually	1 Yr.
			Cats	(2 doses) 1 ml/dose	Same as for dogs	SC or IM	1 ml Annually	1 Yr.
Primary Hamster Kidney (Fixed Virus) without adjuvant		Fromm (Rabvac TC)	Dogs	(2 doses) 5 ml/dose	1st dose @ 3-4 mo. 2nd dose 3-4 wks later	SC or IM	5 ml Annually	1 Yr.
			Cats	(2 doses) 3 ml/dose	Same as for dogs	SC or IM	3 ml Annually	1 Yr.
			Cattle and Horses	(2 doses) 50 ml/dose	as required	SC or IM	50 ml Annually	1 Yr.
			Sheep and Goats	(2 doses) 10-15 ml/dose	as required	SC or IM	10 ml Annually	1 Yr.
Tissue Origin								
Caprine, Nervous Tissue (Fixed Virus)		Bandy	Dogs	1 dose 5 ml	3-4 mo.	SC or IM	5 ml Annually	1 Yr.
			Cats	1 dose 3 ml	3-4 mo.	SC or IM	3 ml Annually	1 Yr.
			Cattle	1 dose 50 ml	as required	SC or IM	50 ml Annually	1 Yr.
Caprine, Nervous Tissue (Fixed Virus)	Ft. Dodge; Philips Roxane			Not available for use				
Ovine, Nervous Tissue (Fixed Virus)	Haver-Lockhart			Not available for use				

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES FOR WEEKS ENDING SEPTEMBER 16, 1972 AND SEPTEMBER 18, 1971 (37th WEEK)

AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	CHICKENPOX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS		
						Primary including unspec. cases		Post Infectious	Serum (Hepatitis B)	Infectious (Hepatitis A)	
	1972	1972	1972	1972	Cum. 1972	1972	1971	1972	1972	1972	1971
UNITED STATES	185	8	297	1	72	23	36	5	196	1,067	1,328
NEW ENGLAND	18	1	44	–	–	3	3	–	12	66	81
Maine*	–	–	–	–	–	–	–	–	–	1	8
New Hampshire	–	–	1	–	–	–	–	–	–	5	4
Vermont	–	–	4	–	–	–	–	–	–	4	11
Massachusetts	9	–	23	–	–	1	1	–	1	39	32
Rhode Island	6	–	12	–	–	–	–	–	2	7	10
Connecticut	3	1	4	–	–	2	2	–	9	10	16
MIDDLE ATLANTIC	44	–	24	–	3	4	3	–	45	127	266
Upstate New York	6	–	–	–	1	2	2	–	11	37	54
New York City	21	–	24	–	2	–	–	–	20	42	63
New Jersey*	17	–	NN	–	–	2	–	–	14	48	57
Pennsylvania*	---	---	---	---	–	---	1	---	---	---	92
EAST NORTH CENTRAL	25	–	106	–	4	7	12	–	38	264	152
Ohio	10	–	4	–	–	5	5	–	19	86	28
Indiana*	–	–	14	–	–	–	–	–	1	15	10
Illinois	1	–	–	–	3	–	1	–	3	57	21
Michigan	13	–	15	–	1	2	5	–	13	101	84
Wisconsin	1	–	73	–	–	–	1	–	2	5	9
WEST NORTH CENTRAL	7	3	21	–	9	2	2	–	4	52	47
Minnesota	5	–	2	–	–	1	–	–	–	4	1
Iowa*	–	1	14	–	–	–	2	–	2	6	7
Missouri	1	2	1	–	–	1	–	–	1	27	22
North Dakota	–	–	3	–	–	–	–	–	–	–	1
South Dakota	–	–	–	–	6	–	–	–	–	–	3
Nebraska	–	–	1	–	3	–	–	–	–	1	1
Kansas	1	–	–	–	–	–	–	–	1	14	12
SOUTH ATLANTIC	38	1	10	–	10	2	3	1	20	106	151
Delaware	–	–	–	–	–	1	–	–	–	4	3
Maryland	7	–	1	–	1	–	–	–	1	19	25
District of Columbia	–	–	–	–	–	–	–	–	–	–	–
Virginia	11	1	–	–	–	1	1	–	4	7	19
West Virginia	4	–	9	–	–	–	–	–	–	6	10
North Carolina*	11	–	NN	–	–	–	1	–	5	30	44
South Carolina	1	–	–	–	1	–	–	1	4	7	3
Georgia	–	–	–	–	3	–	–	–	–	12	8
Florida	4	–	–	–	5	–	1	–	6	21	39
EAST SOUTH CENTRAL	4	1	4	–	6	–	4	–	4	44	63
Kentucky	2	–	2	–	–	–	–	–	1	12	14
Tennessee	1	–	NN	–	–	–	4	–	–	14	31
Alabama	–	1	2	–	6	–	–	–	3	14	14
Mississippi	1	–	–	–	–	–	–	–	–	4	4
WEST SOUTH CENTRAL	15	1	23	1	28	1	1	1	16	101	172
Arkansas*	1	1	–	–	–	–	–	–	–	6	7
Louisiana	3	–	NN	–	4	–	–	–	3	11	23
Oklahoma	4	–	1	–	–	–	1	–	–	8	21
Texas	7	–	22	1	24	1	–	1	13	76	121
MOUNTAIN	6	–	38	–	5	2	1	–	13	78	82
Montana	–	–	14	–	–	1	–	–	2	7	3
Idaho	–	–	–	–	2	–	–	–	–	6	25
Wyoming	–	–	–	–	–	–	–	–	1	1	1
Colorado	–	–	6	–	–	–	–	–	10	22	11
New Mexico	2	–	9	–	1	1	1	–	–	11	18
Arizona	–	–	8	–	2	–	–	–	–	15	13
Utah	4	–	–	–	–	–	–	–	–	14	11
Nevada	–	–	1	–	–	–	–	–	–	2	–
PACIFIC	28	1	27	–	7	2	7	3	44	229	314
Washington	–	–	17	–	5	–	1	–	–	24	32
Oregon	2	–	–	–	1	–	1	–	1	27	26
California	26	1	–	–	1	2	5	3	40	159	254
Alaska	–	–	5	–	–	–	–	–	3	4	2
Hawaii	–	–	5	–	–	–	–	–	–	15	–
Guam	–	–	11	–	–	–	---	–	–	–	---
Puerto Rico	–	–	14	–	–	–	–	–	–	7	44
Virgin Islands	–	–	14	–	–	–	–	–	–	–	–

*Delayed reports: Aseptic meningitis: Pa. 9
Chickenpox: Me. 1, Pa. 1
Encephalitis, primary: Pa. 2, Iowa 1
Encephalitis, post-infectious: N.J. 1
Hepatitis B: Me. 1, Pa. 6, N.C. delete1
Hepatitis A: Me. 10, Pa. 29, Ind. delete 1, Ark. delete 1

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES FOR WEEKS ENDING SEPTEMBER 16, 1972 AND SEPTEMBER 18, 1971 (37th WEEK) – Continued

AREA	MALARIA		MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			MUMPS		RUBELLA	
	1972	Cum. 1972	1972	Cumulative 1972	Cumulative 1971	1972	Cumulative 1972	Cumulative 1971	1972	Cum. 1972	1972	Cum. 1972
UNITED STATES	12	692	96	26,951	69,721	16	1,014	1,770	327	56,887	71	20,887
NEW ENGLAND	–	22	15	3,131	3,429	1	42	81	13	2,404	4	951
Maine *	–	2	–	244	1,464	–	3	8	–	283	–	69
New Hampshire	–	3	5	234	209	–	3	16	–	184	–	32
Vermont	–	1	2	127	116	–	–	–	–	111	1	69
Massachusetts	–	7	6	707	240	1	20	30	4	577	1	438
Rhode Island	–	1	–	523	238	–	10	3	–	379	–	88
Connecticut	–	8	2	1,296	1,162	–	6	24	9	870	2	255
MIDDLE ATLANTIC	1	53	3	999	7,519	1	123	243	42	3,186	7	1,880
Upstate New York	1	13	–	125	663	–	32	69	NN	NN	–	237
New York City	–	7	3	330	3,754	1	38	54	39	1,807	7	228
New Jersey	–	17	–	486	1,191	–	24	53	3	708	–	1,158
Pennsylvania*	---	16	---	58	1,911	---	29	67	---	671	---	257
EAST NORTH CENTRAL	–	73	26	11,035	15,321	2	147	202	70	15,598	19	5,557
Ohio	–	13	3	248	3,986	2	59	65	5	2,181	2	393
Indiana	–	1	4	1,242	2,733	–	11	14	3	1,010	2	682
Illinois	–	29	5	4,101	2,961	–	32	58	6	2,723	2	1,028
Michigan	–	27	4	1,984	2,309	–	39	53	16	2,714	3	1,270
Wisconsin	–	3	10	3,460	3,332	–	6	12	40	6,970	10	2,184
WEST NORTH CENTRAL	1	45	3	941	6,803	1	71	129	25	8,352	4	1,269
Minnesota	–	7	–	20	53	–	21	21	1	676	1	489
Iowa	–	3	3	655	2,242	1	3	9	21	5,720	1	388
Missouri	1	12	–	163	2,602	–	20	46	–	530	2	111
North Dakota	–	1	–	52	236	–	–	6	2	342	–	26
South Dakota	–	4	–	6	217	–	2	5	1	118	–	12
Nebraska	–	3	–	18	66	–	9	15	–	268	–	52
Kansas	–	15	–	27	1,387	–	16	27	–	698	–	191
SOUTH ATLANTIC	3	106	11	2,158	8,368	6	230	315	30	5,353	–	1,753
Delaware *	–	–	–	50	38	–	1	2	4	96	–	7
Maryland	–	8	–	15	540	1	35	46	6	353	–	45
District of Columbia	–	5	–	2	15	–	9	13	–	21	–	6
Virginia	1	6	–	60	1,584	–	49	37	–	1,141	–	69
West Virginia	–	2	4	275	504	–	7	7	11	2,352	–	391
North Carolina	1	40	1	34	1,931	2	29	54	NN	NN	–	28
South Carolina	1	11	–	215	904	–	20	20	–	175	–	50
Georgia	–	22	–	166	1,073	2	17	23	–	22	–	58
Florida	–	12	6	1,341	1,779	1	63	113	9	1,193	–	1,099
EAST SOUTH CENTRAL	–	164	2	1,045	8,211	–	79	152	7	2,979	5	1,529
Kentucky	–	143	1	525	3,902	–	25	40	–	459	2	857
Tennessee	–	–	–	191	1,019	–	28	61	6	1,912	3	515
Alabama	–	17	1	147	1,877	–	16	28	1	498	–	45
Mississippi	–	4	–	182	1,413	–	10	23	–	110	–	112
WEST SOUTH CENTRAL	2	79	12	1,483	12,431	1	125	150	41	4,839	13	1,521
Arkansas	–	5	–	13	778	–	9	5	1	161	–	35
Louisiana	–	6	1	85	1,672	1	37	53	6	312	1	91
Oklahoma	1	6	–	10	754	–	6	7	–	158	2	36
Texas	1	62	11	1,375	9,227	–	73	85	34	4,208	10	1,359
MOUNTAIN	1	43	7	1,828	3,222	1	21	54	21	2,916	6	1,088
Montana	–	2	–	16	925	–	3	6	–	175	–	30
Idaho	–	3	1	83	271	–	5	10	–	196	–	29
Wyoming	–	1	–	51	85	–	1	2	–	219	–	8
Colorado	1	28	2	524	826	–	5	7	5	745	2	518
New Mexico	–	1	1	122	361	1	3	4	9	578	3	103
Arizona	–	6	2	876	418	–	1	8	7	820	1	367
Utah	–	2	–	155	329	–	2	14	–	138	–	30
Nevada	–	–	1	1	7	–	1	3	–	45	–	3
PACIFIC	4	107	17	4,331	4,417	3	176	444	78	11,260	13	5,339
Washington	1	1	–	977	1,027	–	15	25	9	3,589	2	824
Oregon	–	11	3	133	372	–	14	34	12	1,543	4	368
California	2	80	12	3,111	2,580	3	136	377	50	5,752	7	4,073
Alaska	–	3	1	13	55	–	8	–	–	99	–	21
Hawaii	1	12	1	97	383	–	3	8	7	277	–	53
Guam *	–	2	3	11	---	–	11	---	–	6	–	9
Puerto Rico	–	5	12	645	519	–	4	8	14	812	–	25
Virgin Islands	–	–	1	3	17	–	2	–	–	129	–	3

*Delayed reports: Measles: Me. 1, Del. 1; Mumps: Me. 2, Pa. 3, Del. 2
Meningococcal infections: Pa. 2; Rubella: Pa. 3, Guam 1

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDING SEPTEMBER 16, 1972 AND SEPTEMBER 18, 1971 (37th WEEK) – Continued

AREA	TETANUS	TB (New Active)	TULAREMIA		TYPHOID FEVER		TYPHUS FEVER TICK-BORNE (Rky. Mt. spotted fever)		VENEREAL DISEASES		RABIES IN ANIMALS	
									GONORRHEA	SYPHILIS (Pri. & Sec.)		
	1972	1972	1972	Cum. 1972	1972	Cum. 1972	1972	Cum. 1972	1972	1972	1972	Cum. 1972
UNITED STATES	5	574	3	101	5	240	22	433	14,662	457	87	3,061
NEW ENGLAND	–	15	–	–	–	11	1	2	335	13	–	93
Maine	–	–	–	–	–	–	–	–	29	–	–	72
New Hampshire *	–	–	–	–	–	2	–	–	17	–	–	3
Vermont	–	3	–	–	–	–	–	–	7	1	–	9
Massachusetts	–	6	–	–	–	7	1	2	126	5	–	3
Rhode Island	–	2	–	–	–	–	–	–	34	1	–	2
Connecticut	–	4	–	–	–	2	–	–	122	6	–	4
MIDDLE ATLANTIC	–	87	–	1	–	38	–	27	2,065	102	3	77
Upstate New York	–	14	–	–	–	13	–	6	507	3	3	40
New York City	–	48	–	–	–	21	–	1	1,323	83	–	–
New Jersey	–	25	–	1	–	3	–	10	235	16	–	–
Pennsylvania *	---	---	---	–	---	1	---	10	---	---	---	37
EAST NORTH CENTRAL	1	128	–	1	–	19	2	22	1,601	18	9	310
Ohio	1	23	–	1	–	6	1	19	667	5	3	88
Indiana	–	25	–	–	–	–	–	–	151	1	1	66
Illinois *	–	34	–	–	–	6	1	2	94	–	1	51
Michigan	–	26	–	–	–	6	–	–	579	7	–	8
Wisconsin	–	20	–	–	–	1	–	1	110	5	4	97
WEST NORTH CENTRAL	–	30	1	25	1	6	–	15	902	6	24	843
Minnesota	–	3	–	–	1	1	–	–	173	–	9	192
Iowa	–	1	–	–	–	–	–	2	131	2	5	263
Missouri	–	18	1	20	–	3	–	8	350	3	2	77
North Dakota	–	2	–	–	–	–	–	–	18	–	5	117
South Dakota	–	–	–	1	–	–	–	4	40	–	–	76
Nebraska	–	1	–	1	–	–	–	–	95	–	1	14
Kansas	–	5	–	3	–	2	–	1	95	1	2	104
SOUTH ATLANTIC	1	141	–	10	–	28	7	231	3,291	170	7	295
Delaware *	–	5	–	–	–	–	–	1	24	–	–	1
Maryland	–	1	–	1	–	7	–	29	274	14	1	16
District of Columbia	–	3	–	–	–	2	–	1	355	16	–	–
Virginia	1	21	–	7	–	7	2	55	407	36	–	84
West Virginia	–	8	–	–	–	1	–	3	31	3	–	50
North Carolina*	–	28	–	–	–	–	5	103	415	10	–	1
South Carolina	–	23	–	–	–	–	–	20	–	–	–	12
Georgia	–	21	–	1	–	2	–	18	907	52	5	75
Florida	–	31	–	1	–	9	–	1	878	39	1	56
EAST SOUTH CENTRAL	2	61	–	8	1	33	10	86	1,562	44	8	537
Kentucky	–	13	–	–	–	7	–	4	200	18	2	207
Tennessee	1	20	–	7	–	11	4	56	632	14	3	275
Alabama	1	17	–	1	1	10	4	12	447	1	1	52
Mississippi *	–	11	–	–	–	5	2	14	283	11	2	3
WEST SOUTH CENTRAL	1	5	1	43	1	35	2	43	1,890	42	18	622
Arkansas	–	–	–	25	1	12	2	8	163	4	4	89
Louisiana *	–	–	–	3	–	6	–	–	286	15	2	34
Oklahoma	–	5	–	9	–	2	–	28	201	–	3	245
Texas	1	–	1	6	–	15	–	7	1,240	23	9	254
MOUNTAIN	–	15	1	10	–	7	–	6	515	9	5	73
Montana	–	2	1	1	–	–	–	2	40	1	–	6
Idaho	–	–	–	–	–	–	–	3	42	–	–	–
Wyoming	–	–	–	–	–	–	–	–	8	–	–	1
Colorado	–	2	–	1	–	–	–	–	114	2	–	–
New Mexico	–	1	–	–	–	1	–	–	75	–	2	17
Arizona *	–	9	–	2	–	4	–	–	106	1	1	42
Utah	–	1	–	6	–	2	–	1	32	–	2	6
Nevada	–	–	–	–	–	–	–	–	98	5	–	1
PACIFIC	–	92	–	3	2	63	–	1	2,501	53	13	211
Washington	–	2	–	–	–	2	–	1	215	–	–	–
Oregon	–	6	–	1	–	–	–	–	263	1	–	3
California	–	69	–	1	2	58	–	–	1,947	51	13	200
Alaska *	–	–	–	1	–	–	–	–	48	–	–	8
Hawaii	–	15	–	–	–	3	–	–	28	1	–	–
Guam *	–	1	–	–	–	–	–	–	6	–	–	–
Puerto Rico	2	–	–	–	1	6	–	–	45	3	–	37
Virgin Islands	–	–	–	–	–	–	–	–	2	–	–	–

*Delayed reports: Tuberculosis: N.H. delete 1, Ill. 48, Del. 18, N.C. delete 2, La. delete 2, Guam 4
Typhoid fever: Ariz. 2
Gonorrhea: Pa. 531, Ariz. 7, Guam 31
Syphilis: Pa. delete 20, Miss. 1, Alaska delete 1
Rabies in animals: Pa. 1

Week No. 37

TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDING SEPTEMBER 16, 1972

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

Area	All Causes			Pneumonia and Influenza	Area	All Causes			Pneumonia and Influenza
	All Ages	65 years and over	Under 1 year	All Ages		All Ages	65 years and over	Under 1 year	All Ages
NEW ENGLAND	645	393	23	30	SOUTH ATLANTIC	1,161	614	35	57
Boston, Mass.	192	102	6	11	Atlanta, Ga.	75	37	2	3
Bridgeport, Conn.	37	22	–	3	Baltimore, Md.	246	130	3	3
Cambridge, Mass.	15	6	–	4	Charlotte, N. C.	76	34	3	–
Fall River, Mass.	22	16	1	–	Jacksonville, Fla.	66	39	3	–
Hartford, Conn.	42	24	4	–	Miami, Fla.	118	59	6	9
Lowell, Mass.	21	15	1	1	Norfolk, Va.	77	44	2	8
Lynn, Mass.	23	14	1	–	Richmond, Va.	115	59	6	16
New Bedford, Mass.	34	26	1	2	Savannah, Ga.	32	12	2	3
New Haven, Conn.	59	36	6	2	St. Petersburg, Fla.	82	63	2	1
Providence, R. I.	53	34	1	4	Tampa, Fla.	58	37	2	6
Somerville, Mass.	9	8	–	–	Washington, D. C.	167	70	3	7
Springfield, Mass.	38	22	2	1	Wilmington, Del.	49	30	1	1
Waterbury, Conn.	34	21	–	–					
Worcester, Mass.	66	47	–	2	EAST SOUTH CENTRAL	737	402	34	34
					Birmingham, Ala.	111	55	4	1
MIDDLE ATLANTIC	2,919	1,722	97	118	Chattanooga, Tenn.	64	29	5	8
Albany, N. Y.	47	27	2	2	Knoxville, Tenn.	35	25	–	1
Allentown, Pa.	29	17	–	–	Louisville, Ky.	138	87	3	9
Buffalo, N. Y.	125	78	5	5	Memphis, Tenn.	168	87	8	2
Camden, N. J.	43	25	2	1	Mobile, Ala.	52	24	7	1
Elizabeth, N. J.	18	13	–	1	Montgomery, Ala.	52	26	5	2
Erie, Pa.	38	19	1	1	Nashville, Tenn.	117	69	2	10
Jersey City, N. J.	52	33	4	1					
Newark, N. J.	85	34	9	7	WEST SOUTH CENTRAL	1,396	759	86	38
New York City, N. Y. *	1,471	873	43	57	Austin, Tex.	58	43	1	4
Paterson, N. J.	34	21	–	4	Baton Rouge, La.	51	22	2	1
Philadelphia, Pa.	394	228	10	2	Corpus Christi, Tex.	43	21	1	–
Pittsburgh, Pa.	158	83	7	6	Dallas, Tex.	168	75	7	–
Reading, Pa.	42	27	3	3	El Paso, Tex.	65	38	6	3
Rochester, N. Y.	114	74	4	13	Fort Worth, Tex.	117	71	6	2
Schenectady, N. Y.	32	25	–	1	Houston, Tex.	240	134	15	2
Scranton, Pa.	67	35	4	3	Little Rock, Ark.	66	34	7	8
Syracuse, N. Y.	80	52	2	2	New Orleans, La.	147	81	7	–
Trenton, N. J.	38	22	1	3	Oklahoma City, Okla.*	99	58	6	2
Utica, N. Y.	25	18	–	5	San Antonio, Tex.	151	76	12	4
Yonkers, N. Y.	27	18	–	1	Shreveport, La.	105	50	13	5
					Tulsa, Okla.	86	56	3	7
EAST NORTH CENTRAL	2,438	1,379	90	55					
Akron, Ohio	82	45	4	–	MOUNTAIN	472	271	19	15
Canton, Ohio	31	16	1	3	Albuquerque, N. Mex.	47	20	3	2
Chicago, Ill.	675	379	24	13	Colorado Springs, Colo.	31	15	2	3
Cincinnati, Ohio	158	80	7	4	Denver, Colo.	114	63	2	3
Cleveland, Ohio	160	79	3	–	Las Vegas, Nev.	12	9	–	1
Columbus, Ohio	135	74	6	1	Ogden, Utah	17	12	1	1
Dayton, Ohio	97	57	3	1	Phoenix, Ariz.	114	72	3	1
Detroit, Mich.	310	168	13	3	Pueblo, Colo.	23	12	–	2
Evansville, Ind.	44	31	–	3	Salt Lake City, Utah	63	41	4	2
Fort Wayne, Ind.	45	21	3	2	Tucson, Ariz.	51	27	4	–
Gary, Ind.	32	13	1	4					
Grand Rapids, Mich.	65	47	3	4	PACIFIC	1,743	1,026	56	32
Indianapolis, Ind.	155	76	12	4	Berkeley, Calif.	35	20	–	–
Madison, Wis.	29	16	1	1	Fresno, Calif.	45	22	1	1
Milwaukee, Wis.	134	91	4	1	Glendale, Calif.	33	20	2	1
Peoria, Ill.	41	27	–	2	Honolulu, Hawaii	60	25	3	–
Rockford, Ill.	24	15	–	3	Long Beach, Calif.	97	54	1	2
South Bend, Ind.	39	26	–	3	Los Angeles, Calif.	547	321	26	14
Toledo, Ohio	124	79	3	2	Oakland, Calif.	108	71	8	–
Youngstown, Ohio	58	39	2	1	Pasadena, Calif.	40	24	–	–
					Portland, Oreg.	143	91	3	1
WEST NORTH CENTRAL	820	515	31	24	Sacramento, Calif.	48	25	2	2
Des Moines, Iowa	74	49	4	3	San Diego, Calif.	117	69	2	–
Duluth, Minn.	32	20	–	–	San Francisco, Calif.	161	94	2	7
Kansas City, Kans.	45	27	5	–	San Jose, Calif.	58	37	–	–
Kansas City, Mo.	122	77	4	2	Seattle, Wash.	146	92	2	2
Lincoln, Nebr.	27	23	1	3	Spokane, Wash.	52	31	2	1
Minneapolis, Minn.	96	61	7	1	Tacoma, Wash.	53	30	2	1
Omaha, Nebr.	72	49	3	–					
St. Louis, Mo.	208	119	2	7	Total	12,331	7,081	471	403
St. Paul, Minn.	78	49	3	4					
Wichita, Kans.	66	41	2	4	Expected Number	12,036	6,793	557	393
					Cumulative Total (includes reported corrections for previous weeks)	472,429	275,092	18,732	18,773

*Estimate based on average percent of divisional total.

RABIES – Continued

are based on data and experiences furnished the committee by experts in rabies control. These recommendations have been reviewed with the regulatory agency which licenses animal vaccines, Veterinary Biologics, United States Department of Agriculture; with the Rabies Committee of the United States Animal Health Association; the State and Territorial Public Health Veterinarians; the Conference of Public Health Veterinarians, officials at the American Veterinary Medical Association and CDC. The NRC-NAS complete report should be published by January 1973.

All who use this compendium should realize these are the new national recommendations for animal rabies vaccination. Veterinarians in practice are reminded that some lots of vaccine released in recent months might contain the manufacturers' earlier recommendations. There may be as much as a 6-month lag between the issuance of this compendium and the companies' compliance in revising the package insert distributed with the various vaccines. In the meantime, states and local governments that are considering new rabies control legislation can include this information in their new laws, ordinances or rules and regulations. Ultimately this compendium should serve as a basis for standardization of animal rabies vaccination throughout the United States.

EPIDEMIOLOGIC NOTES AND REPORTS

TUBERCULOSIS – Oklahoma

In January 1972, a 29-year-old aide working in a nursing home in western Oklahoma became ill with suspected active tuberculosis and was admitted to a hospital in Denver, Colorado. Sputum smears and cultures were positive for *Mycobacterium tuberculosis*. A tuberculin skin test (Mantoux intradermal, using PPD tuberculin, intermediate strength) was subsequently administered to all 232 patients (88 geriatric patients and 144 mentally retarded patients) and all 86 employees in the home. Forty percent of the patients and 34% of the employees had a positive reaction ($\geq$10mm). Chest X-rays and sputum cultures from the positive reactors revealed three new active tuberculosis cases: two geriatric patients and a 21-year-old aide. A total of 50 patients and 19 employees were recommended for preventive treatment and approximately 90% are now taking medication regularly.

Epidemiologic investigation revealed that the geriatric patients and mentally retarded patients are housed in separate annexes and are not in contact with each other. Both aides with active tuberculosis worked on different shifts and neither worked in the annex which housed the mentally retarded. One of the ill geriatric patients, who had lived in the home for several years, is thought to be the source of infection for the two aides. The source of infection for the other ill geriatric patient could not be determined.

(Reported by Richard M. Burke, M.D., Director, Tuberculosis Division, and R. Leroy Carpenter, M.D., State Commissioner of Health, Oklahoma State Department of Health; and a Tuberculosis Branch Public Health Advisor.)

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The data in this report are provisional, based on weekly telegraphs to CDC by 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.

In addition to the established procedures for reporting morbidity and mortality, the editor welcomes accounts of interesting outbreaks or case investigations of current interest to health officials.

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