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THE PATHOLOGY OF PSITTACOSIS

A recent publication [1] issued by the United States Public Health Service gives a description of the pathology of psittacosis and the distribution of *Rickettsia psittaci* in the tissues of man and animals.

The history of the pathology of psittacosis begins with three autopsies by Eberth in an outbreak reported by Ritter in 1879. Since that time reports of 44 additional autopsies have been published and Lillie has been able to secure material from five more, making a total of 50-odd autopsies. From these, and more specially from 4 published and 5 unpublished cases which Lillie himself has had the opportunity to study, an attempt has been made to write a unified account of the pathologic anatomy and histology of psittacosis. The human cases, both published and unpublished, on which this report is based are tabulated according to the date of publication.

In the second paper the author describes the pathology of the disease in animals and the distribution of *Rickettsia psittaci* in the tissues of both man and animals. It would seem indicated that *R. psittaci* is primarily an epithelial parasite. An etiological relationship of *R. psittaci* to psittacosis also seems indicated, though not proved. Lillie notes that, subsequent to his observations, the work of Bedson on the isolation, by centrifugation, of the inclusion bodies of psittacosis has appeared. These findings further support the idea of an etiological relationship of *R. psittaci* to psittacosis.

The author appends an extensive bibliography and several plates of photomicrographs to each paper.

[1] I. The pathology of psittacosis in man, and II. The pathology of psittacosis in animals and the distribution of *Rickettsia psittaci* in the tissues of man and animals. By R. D. Lillie, Surgeon, United States Public Health Service. National Institute of Health Bulletin No. 161. May 1933. Illus. 66 pages.

THE PELLAGRA-PREVENTIVE VALUE OF GREEN CABBAGE, COLLARDS, MUSTARD GREENS, AND KALE

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The studies here reported were conducted at the Milledgeville State Hospital, Milledgeville, Ga., and represent a continuation of the program of experiments designed to determine the relative pellagra-preventive potency of the common foods, and foodstuffs. As in much of the recent work on this subject, attention has been centered on fresh vegetables, especially those which may be more readily and cheaply grown in the Cotton Belt and made available during the spring months when variety in diet, under the conditions which prevail in this section, is normally most restricted.

Previous studies have included tomatoes, carrots, and rutabaga turnips (1); turnip greens, spinach, green beans, and mature onions (2); and green English peas (3). The present report covers green cabbage, collards, mustard greens, and kale.

It has, for the most part, continued to be necessary to employ the canned product in testing these green vegetables, for the reason that under ordinary conditions they are not available in the fresh state for a sufficient length of time to permit of an adequate feeding experiment. In view of the fact that the pellagra-preventive factor is not appreciably affected by the heat incident to canning, this procedure seems to be a safe one.

As in previous tests of the pellagra-preventive power of individual foods, each item was used as a supplement to a basic diet believed to be physiologically complete except for a deficiency of the pellagra-preventive factor. When used alone this diet leads to the production of pellagra in any given number of individuals within about 3 to 6 months (4). A notable prolongation of this period in a considerable number of a group of individuals must therefore be looked upon as being brought about by the preventive influence of the particular dietary supplement employed.

In keeping with the previous work, each experimental feeding has been continued for a period of 1 year unless sooner terminated by the development of a sufficient number of cases of pellagra.

GREEN CABBAGE

Mississippi-grown, canned, unheaded cabbage was used. The daily allowance was 482 grams, including the can liquor. The approximate composition of the cabbage-supplemented diet is shown in table 1.

Of 15 colored females who came under observation on the cabbage-supplemented ration, 1 developed pellagra during the seventh month, while the remaining 14 completed the test period of 1 year without presenting symptoms. Inasmuch as all of this group would have developed pellagra within about 6 months had not the cabbage supplement been employed, it is to be concluded that the canned green cabbage contains the pellagra-preventive factor; but since one of the group developed pellagra while taking this supplemented diet, it cannot be said to protect completely even in the generous quantity in which it was used. Nevertheless, in view of its adaptability, cheapness of production, and seasonal availability, green cabbage may be considered a very practicable contributory source of pellagra prevention.

TABLE 1.—*Basic diet plus canned green cabbage*

[Total calories, 1,997]

Article of diet	Quantity	Nutrients		
		Protein	Fat	Carbohydrate
Basic	*Grams*	*Grams*	*Grams*	*Grams*
Corn meal	270	22.7	12.7	199.8
Cowpeas (California black-eyed)	42	8.98	.6	25.5
Flour	21	2.4	.2	15.8
Lard	42		42.0	
Baker's bread	56	5.2	.6	29.5
Tomato juice (canned)	127			
Cod-liver oil	14		14.0	
Calcium carbonate	3			
Sirup iodide of iron	2 drops			
Dilute hydrochloric acid (U.S.P.)	90 drops			
Supplemental				
Cabbage (canned green)	482	2.6	.96	26.9
Total nutrients		41.88	71.06	297.5

COLLARDS

A commercial brand of canned collards was used. The daily allowance was 482 grams, including the can liquor. The approximate composition of the collards-supplemented diet is shown in table 2.

A group of 16 colored females came under observation on the collards-supplemented ration, 13 of whom were continued on it for 1 year. In none was evidence of pellagra observed. Canned collards, in the quantity used, must therefore be regarded as a suitable supplement for an otherwise pellagra producing diet.

This vegetable has the further advantage of being easily grown and widely adaptable throughout most of the South. Under ordinary conditions it survives the winter weather and is at its best during late winter and early spring when other supplements are scarcest. Taken all in all, it is a highly practicable source for supplementing the average pellagrous dietary, and its production and use should become more general.

TABLE 2. —*Basic diet plus canned collards*

[Total calories, 1,988]

Article of diet	Quantity	Nutrients		
		Protein	Fat	Carbohydrate
Basic	*Grams*	*Grams*	*Grams*	*Grams*
Corn meal	270	22.7	12.7	199.8
Cowpeas (California black-eyed)	42	8.98	.6	25.5
Flour	21	2.4	.2	15.8
Lard	42		42.0	
Baker's bread	56	5.2	.6	29.5
Tomato juice	127			
Cod-liver oil	14		14.0	
Calcium carbonate	3			
Dilute hydrochloric acid (U.S.P.)	90 drops			
Sirup iodide of iron	2 drops			
Supplemental				
Collards (canned)	482	5.78	.67	22.1
Total nutrients		45.06	70.77	292.7

MUSTARD GREENS

Mississippi-grown canned mustard greens were used, except for a period of 5 weeks during which locally grown fresh mustard greens (in equivalent quantity) were used. The daily allowance was 533 grams, including the can liquor. The approximate composition of the mustard greens-supplemented diet is shown in table 3.

Of 14 white females who came under observation on the mustard greens-supplemented ration, 1 developed pellagra during the latter part of the sixth month. The remaining 13 completed the test period of 1 year without manifesting symptoms. It must therefore be concluded that the mustard greens used contained the pellagra-preventive factor. But since a rather generous allowance did not bring about complete protection, this vegetable cannot be regarded as a particularly rich source of it. It does, however, have the advantage of being easily and quickly grown in the South and made available in the early spring. It should therefore be classed as a valuable adjunct for building up an otherwise pellagra-producing diet.

TABLE 3.—*Basic diet plus canned mustard greens*

[Total calories, 1,878]

Article of diet	Quantity	Nutrients		
		Protein	Fat	Carbohydrate
Basic	*Grams*	*Grams*	*Grams*	*Grams*
Corn meal	270	22.7	12.7	199.8
Cowpeas (California black-eyed)	42	8.98	.6	25.5
Flour	21	2.4	.2	15.8
Lard	42		42.0	
Tomato juice	127			
Cod-liver oil	14		14.0	
Calcium carbonate	3			
Sirup iodide of iron	2 drops			
Dilute hydrochloric acid, U.S.P.	90 drops			
Supplemental				
Mustard greens (canned)	533	13.6	1.3	21.3
Total nutrients		47.68	70.8	262.4

KALE

Mississippi-grown canned green Scotch kale was used. The daily allowance was 534 grams, including the can liquor. The approximate composition of the kale-supplemented diet is shown in table 4.

A group of 14 white females came under observation on this ration for a period of 1 year. At no time was evidence of pellagra observed. Canned kale therefore contains the pellagra-preventive factor and, in the quantity used, is an efficient supplement for an otherwise pellagra-producing diet.

Some members of this group showed a slight and persistent yellowish tint over the bony prominences poorly supplied with subcutaneous fat. Presumably this was the result of excess carotin supplied by the green kale.

TABLE 4.—*Basic diet plus canned green Scotch kale*

(Total calories, 1,899)

Article of diet	Quantity	Nutrients		
		Protein	Fat	Carbohydrate
Basic	*Grams*	*Grams*	*Grams*	*Grams*
Corn meal	270	22.7	12.7	199.8
Cowpeas (Calif. black-eyed)	42	8.98	.6	25.5
Flour	21	2.4	.2	15.8
Lard	42	----------	42.0	----------
Tomato juice	127	----------	----------	----------
Cod-liver oil	14	----------	14.0	----------
Calcium carbonate	3	----------	----------	----------
Sirup iodide of iron	2 drops	----------	----------	----------
Dilute hydrochloric acid, U.S.P.	90 drops	----------	----------	----------
Supplemental				
Kale (canned green, Scotch)	534	13.4	2.7	23.7
Total nutrients	----------	47.48	72.2	264.8

CONCLUSIONS

1. Canned green cabbage and canned mustard greens contain the pellagra-preventive factor and, though not fully adequate in themselves, may be regarded as quite practicable contributory sources for supplementing otherwise pellagra-producing diets.

2. Canned collards and canned kale are satisfactory pellagra-preventive supplements, at least when used in relatively large proportion.

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THE RELATION BETWEEN THE TRYPANOCIDAL AND SPIROCHETICIDAL ACTIVITIES OF NEOARSPHENAMINE

IV. THE SPIROCHETICIDAL ACTIVITY AS MEASURED BY THE STERILIZING EFFICIENCY OF NEOARSPHENAMINE

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In previous reports on the relation between the trypanocidal and spirocheticidal activity of neoarsphenamine, the spirocheticidal activity of the two brands of this arsenical have been appraised on the basis of the therapeutic dose (1) (minimal dose which caused rapid disappearance of the spirochetes from the primary lesions and healing of the lesion without relapse) and the prophylactic dose (2) (minimal dose which protects the rabbit against the development of experimental syphilis when treated with one prophylactic dose two days after inoculation).

It is believed that the final evaluation of the spirocheticidal activity of the antisyphilitic drugs must be ascertained by the sterilizing or curative action in experimental syphilis in rabbits. It was, therefore, deemed necessary to include the sterilizing activity of neoarsphenamine in order that a more complete study of the spirocheticidal activity might be offered for comparison with the trypanocidal activity value.

In a comprehensive study of the sterilizing efficiency of the arsphenamines, Voegtlin and Dyer (3) reported the minimal sterilizing dose of neoarsphenamine, one treatment at an advanced stage of the disease, to be 40 mg per kilogram. The efficiency of arsphenamine, neoarsphenamine, and sulpharsphenamine was reported to be identical in terms of the absolute amount of arsenic and the percentage of sterilizing efficiency increase with an increase in the dose. In the case of neoarsphenamine these authors reported 50 percent sterilization of 6 rabbits at 16 mg, 40 percent sterilization of 5 rabbits at 24 mg, and 100 percent sterilization of 6 rabbits at 40 mg per kilogram.

Kolmer (4), in his book Chemotherapy (1926), discussing the comparison of the trypanocidal and spirocheticidal properties of arsphenamine and neoarsphenamine, recorded that the comparison in the results of these tests is not definite or constant but only broad

and general. The therapeutic efficiency of six neoarsphenamines from the same laboratory was reported by these two methods. The minimal effective dose as obtained by the trypanocidal test varied from 2 to 10 mg, whereas the spirocheticidal efficiency varied from 8 to 12 mg per kilogram. Two products are of interest: Neoarsphenamine E and F of the Kolmer study reported the same spirocheticidal activity, 12 mg, but the trypanocidal effectiveness varied from 2 mg for neoarsphenamine E to 10 mg for neoarsphenamine F.

The trypanocidal tests, Kolmer reported, "have proven of distinct value in evaluating the properties of different lots of arsphenamine and neoarsphenamine for the treatment of human syphilis."

Schamberg and Kolmer, with Madden (1933), (5), reported on the comparison of the trypanocidal and spirocheticidal activity of 18 neoarsphenamines from seven different manufacturers. It was their suggestion that the trypanocidal and the spirocheticidal activity tests be established as standard control tests for neoarsphenamine.

The authors stated that the relationship between the trypanocidal activity and its curative activity in syphilis is broad and general. This observation, it is believed, is borne out by the experimental evidence. In 12 products that satisfied the requirements of both tests the trypanocidal activity is recorded as varying from 4 mg to 12 mg per kilo, whereas the minimal effective dose in experimental syphilis for all of these 12 products was 20 mg per kilogram.

In but two products of the six which failed to satisfy the requirements of one or both tests do the results support their observation that neoarsphenamine much below the average in trypanocidal activity will be below the average in spirocheticidal or curative activity for syphilis. In the remaining four products this observation does not appear to be supported. It is recorded that two of these failed the trypanocidal test, but satisfied the requirements of the spirocheticidal tests while the other two were efficient when tested for trypanocidal activity, but ineffective in the spirocheticidal activity test.

It is believed that the results reported by Schamberg and Kolmer, with Madden, on the comparison of the efficiency of these tests are not constant and definite but only broad and general as stated by Kolmer in 1926.

The spirocheticidal tests reported all of 18 products ineffective at 15 mg per kilo and 14 effective at 20 mg per kilo; higher dosage was not included. Since the spirocheticidal activity for the four preparations was not found by these authors, it could not be stated how ineffective these products are, or that they are not within a reasonable experimental variation.

The trypanocidal and the spirocheticidal activities of the neoarsphenamines used in this investigation have been previously reported (1) (2) under designation of brand E and brand F. The former represented the most effective and the latter the least effective in trypanocidal activity. These products were found to have no noteworthy difference in their spirocheticidal activity as indicated by the results of the therapeutic and the prophylactic dose treatment.

EXPERIMENTAL

The technique of infecting the rabbits was the same as that described in previous reports on the spirocheticidal activity of neoarsphenamine. Periodic examinations were made to follow the development of the primary lesions before treatment. Only animals which developed a dark field, positive, typical primary lesion were used.

Treatment consisted of one intravenous injection of the dose and brand of neoarsphenamine as shown in table 1. The control group received no treatment. For convenience the observation is divided into pretreatment, post-treatment, and transfer periods. The progress of the disease and the effect of the treatment are recorded by observation of the evolution of the lesion, by dark-field examination, by the quantitative Kahn test, and by the tissue-transfer method.

The evaluation of the sterilizing or curative efficiency of neoarsphenamine was based upon the minimal dose of the drug which cured rabbits with well-developed primary syphilitic lesions. Cure of the infected animals was proved by the tissue-transfer method.

The pretreatment observation period of 2 months allowed the primary lesions to be well developed and the serum to have developed reacting substances as recorded by the quantitative Kahn tests. The post-treatment observation of approximately 3 months allowed sufficient time for the spreading of the infection from organisms surviving the treatment.

Transfers were made from the popliteal lymph nodes and the testicle originally inoculated. Two rabbits were employed for each transfer, the left testicle and scrotum of each being inoculated with the testicular emulsion and the opposite side with the popliteal gland emulsion.

The sterilizing or curative activity of neoarsphenamine E7 and F6 at 30 and 40 mg per kilo on experimental syphilis in rabbits is reported in series 1. The animals were inoculated February 8, 1930, and given one treatment 69 days later. Observations after treatment extended over a period of 14 weeks, after which tissue-transfer tests were made. The observation time of the transfer rabbits was 18

weeks. All animals receiving 40 mg per kilo, 7 on E7 and 5 on F6, reported negative transfers, and of those receiving 30 mg per kilo all of the E7 (5 rabbits) and all but one (6 rabbits) treated with F6 were negative.

The spirocheticidal efficiency of E7 and F7 was tested at 20 mg and 30 mg per kilo in series 2. In this test the sterilizing efficiency of both products might be placed at 30 mg, as all animals receiving this dose were apparently cured of the infection. All of the transfer animals remained negative. Both products were ineffective at 20 mg per kilo. The E7 product sterilized 62.5 percent of 8 animals, and 87.5 percent of 8 animals were cured by the F7 product. The animals were given one treatment (Jan. 5, 1932) 61 days after inoculation and observed over a period of 12 weeks, after which time tissue transfers were made from all surviving animals. The observation time of the transfer animals was 18 weeks.

It was deemed advisable because of the high percentage of sterilization (87.5 percent) of the F7 product at 20 mg per kilo dose to make subtransfers in order that asymptomatic infection would be eliminated in the original transfer animals. Substransfers, therefore, were made from all the surviving original transfers of the F7 product at 20 mg and also from 4 rabbits of the F7 product at 30 mg and 5 rabbits of the E7 at 30 mg dose. In all, there were 19 subtransfers, all of which were negative.

The third series—a test of the efficiency of F7 at 40 mg, F6 at 20 mg, and the E7 at 30 mg per kilo—was for the purpose of completing the dosage program of the other two series to determine the spirocheticidal efficiency, sterilizing or curative activity, by the one dose of neoarsphenamines F6, F7, and E7 at 20, 30, and 40 mg per kilo.

The rabbits were given one treatment, March 29, 1932, 62 days after inoculation and observed for a period of 15 weeks, after which time tissue transfers were made. The transfer rabbits were held for observation during a period of 16 weeks.

The F6 product was not effective at 20 mg per kilo, two rabbits of the six treated producing the infection in their transfers, whereas the F7 at 40 mg (3 rabbits) and the E7 at 30 mg (2 rabbits) failed to produce evidence of the infection on transfer.

It is believed that the results of these tests support the placing of the minimal curative dose of these two brands of neoarsphenamine at 30 mg per kilo. It is granted that the F6 product failed to cure one of six rabbits at this dose; but, on the other hand, the F preparations sterilized a slightly higher percentage of animals at 20 mg than did the E product.

TABLE 1.—*Spirocheticidal activity of neoarsphenamine*

Brand E, of high trypanocidal activity; Brand F, of low trypanocidal activity

Series	Product	40 mg per kg				30 mg per kg				20 mg per kg				Untreated controls		
		Number of rabbits treated	Result of transfer		Percentage sterilization	Number of rabbits treated	Result of transfer		Percentage sterilization	Number of rabbits treated	Result of transfer		Percentage sterilization	Number of rabbits	Result of transfer	
			Negative	Positive			Negative	Positive			Negative	Positive			Negative	Positive
1	E7	7	7	0	100	5	5	0	100					7	0	7
	F6	5	5	0	100	6	5	1	83.3							
2	E7					6	6	0	100	[1] 8	5	2	62.5	2	0	2
	F7					5	5	0	100	8	7	1	87.5			
3	E7					2	2	0	100					2	0	2
	F6									6	4	2	66.6			
	F7	3	3	0	100											
Total	E7	7	7	0	100	13	13	0	100	[1] 8	5	2	62.5	11	0	11
	F6	5	5	0	100	6	5	1	83.3	6	4	2	66.6			
	F7	3	3	0	100	5	5	0	100.0	8	7	1	87.5			

[1] Metastatic lesion in one rabbit; not transferred.

TABLE 2.—*The trypanocidal and spirocheticidal properties of neoarsphenamine, percent of efficiency*

Product	Trypanocidal test (in rats)				Spirocheticidal test (in rabbits)															
					Therapeutic dose					Prophylactic dose							Curative dose			
	Dose (mg per kg)			M.E.D. (mg per kg)	Dose (mg per kg)				Effective dose (mg per kg)	Dose (mg per kg)						Effective dose (mg per kg)	Dose (mg per kg)			Effective dose (mg per kg)
	35	25	15		15	12.5	10	5		40	30	20	15	10	5		40	30	20	
F5	100	100	40	25	80		66	17	15											
F6	100	100	0	25	100	100			>12.5	100	100	93	66	50	14	20	100	83.3	66.6	30
F7	100	100	60	25													100	100	87.5	30
	Dose (mg per kg)																			
	15	10	7																	
E1	100	0	25	15	100		50	17	15											
E7	100	60	0	15	100	100			>12.5	100	90	92	20	50	20	20	100	100	62.5	30

The material presented in table 2 contains the trypanocidal and spirocheticidal (therapeutic and prophylactic dose) activities of neoarsphenamine brands E and F, represented by table 3 in the previous report (2), to which has been added the trypanocidal activity of F7 and the spirocheticidal activity, as measured by the sterilizing or curative efficiency, of brand E product 7 and brand F products 6 and 7.

Reversal of the Kahn reaction in four unsuccessfully treated rabbits was as complete as in those animals cured of the infection. These results support the findings of Wakerlin and Horrall (6) that the Kahn reaction is negative in latent experimental syphilis in rabbits. It would, therefore, appear that the Kahn test results cannot be accepted as criteria of the curative efficiency of neoarsphenamine in experimental syphilis in rabbits.

If the results of the 30 mg dose of the prophylactic series are compared with the results of the same dose of the curative series, it would indicate that in experimental syphilis in rabbits it requires approximately the same dose of neoarsphenamine to protect rabbits against the development of the disease when treated with one prophylactic dose two days after inoculation as is needed to cure rabbits of the infection when treatment is delayed until 2 months after inoculation or until late in the active stage of the rabbit infection.

The results obtained by the one dose prophylactic treatment, as reported by Greenbaum and Harkins (7) (1924) and by Wakerlin and Loevenhart (8) (1928), placed the effective dose of neoarsphenamine at 45 mg and 40 mg per kilo, respectively. This compares with the one dose sterilizing or curative efficiency of neoarsphenamine late in the active stage of the disease, as reported by Voegtlin and Dyer (3) (1927) at 40 mg and supports the observation that the spirocheticidal activities of neoarsphenamine as obtained by these methods are in approximate agreement.

In 1931 Kolmer and Rule (9) observed that arsphenamine and neoarsphenamine were probably less effective as an abortive agent in experimental syphilis in rabbits than as a curative agent after the infection had developed. It was their recommendation that, in the study of the therapeutic activity in chemotherapeutic investigations, the experimental infection be permitted to become established before administration of the drug.

In the three experiments reported by Kolmer and Rule the minimal effective dose to abort syphilis with arsphenamine and neoarsphenamine and the curative dose of neoarsphenamine were not obtained. Definite relationship, therefore, between the abortive and the curative efficiency of neoarsphenamine was apparently not established by the experiments offered in the study.

Wakerlin and Loevenhart (8) reported that a parallelism existed between the prophylactic and sterilizing powers of the organic arsenicals and mercurial compounds. In their report the minimal sterilizing or curative dose was not ascertained; but the sterilizing efficiency of neoarsphenamine was accomplished by three treatments at weekly intervals during the eighth, ninth, and tenth weeks of the infection with total dosage of 180 mg per kilo. These authors concluded that the determination of the prophylactic activity should

become a part of the accepted technique in the evaluation of the therapeutic efficiency of a drug in the treatment of experimental syphilis in rabbits.

In view of the importance of this observation to the accepted technique of the study of antisyphilitic drugs, further investigation is necessary. If the relation between the prophylactic and sterlizing dose of neoarsphenamine is confirmed, then the former method would offer a satisfactory procedure of ascertaining the spirocheticidal activity of neoarsphenamine.

CONCLUSION

Two brands of neoarsphenamine, previously reported as varying in their trypanocidal activity and having approximately the same spirocheticidal activity as determined by the therapeutic and the prophylactic dose treatments, are here reported to be also remarkably uniform in sterilizing or curing experimental syphilis in rabbits when treatment is delayed until late in the active stage of the disease.

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COURT DECISION RELATING TO PUBLIC HEALTH

Workmen's compensation act held not to take away right of action for noncompensable disease caused by employer's negligence.—(West Virginia Supreme Court of Appeals; *Jones* v. *Rinehart & Dennis Co., Inc., et al.*, 168 S.E. 482; decided Feb. 14, 1933.) An action for damages was brought by the administratrix of a deceased person who had been a laborer in the employ of the defendant company. The burden of the complaint was that, through the negligence of the defendants in causing and permitting large quantities of silica dust to pervade and saturate the atmosphere in a tunnel being constructed, the plaintiff's decedent contracted the disease known as silicosis and died therefrom.

One section of the workmen's compensation act provided as follows:

Any employer subject to this chapter, who shall elect to pay into the workmen's compensation fund the premiums provided by this chapter, shall not be

liable to respond in damages at common law or by statute for the injury or death of any employee, however occurring, after such election and during any period in which such employer shall not be in default in the payment of such premiums and shall have complied fully with all other provisions of this chapter: *Provided*, That the injured employee has remained in his service with notice that his employer has elected to pay into the workmen's compensation fund the premiums provided by this chapter. The continuation in the service of such employer with such notice shall be deemed a waiver by the employee and by the parents of any minor employee of the right of action, as aforesaid, which the employee or his or her parents would otherwise have.

The proposition advanced by the defendants was that, under this provision of the act, subscribing employers, not in default, were relieved from liability to respond in damages for the injury or death of an employee, however occurring, regardless of whether there was involved a compensable or a noncompensable injury.

In approaching a decision on the matter, the supreme court of appeals said that it seemed clear that an employee had a right of action at common law for disease arising from his employment through the negligence of the employer, and that, if such right of action had not been taken away by the compensation act, the administratrix of the decedent in the instant case had the right to prosecute the action under the statute relating to death from a wrongful or negligent act.

After considering various portions of the compensation act, the court said that certain phrases, which were specified, and numerous other similar ones in the act indicated that the legislature in dealing with the subject "was in no wise considering diseases arising from occupation extending over an indefinite period of time", and that it was of the opinion "that disease, whether occupational or otherwise, is not compensable under the West Virginia statute, except in those instances where the disease is attributable to a specific and definite event which may reasonably be classed as a personal injury."

Recurring to the query as to whether the above-quoted statutory provision exempted an employer, who was protected by the compensation act, from liability for a wrong to an employee arising from a disease contracted in the course of his employment through the negligence of his employer, even though the disease was not compensable under the compensation statute, the court said that it was "difficult to perceive a satisfactory and reasonable basis for exemption of employers from liability for disease caused by their negligence, such disease being noncompensable under the compensation statute", and declared that "we are of opinion that it was the legislative intent, as expressed in our compensation law (Code 1931, 23-2-6, Code 1932, sec. 2516), to exempt employers from liability for damages at common law or by statute for compensable injury or death of employees, however occurring, but not to exempt from liability for noncompensable

disease (caused by negligence of the employer) or death resulting from such disease." In reaching this view of the matter, the court stated, in part, as follows:

* * * Recognizably, the statutory provision under immediate consideration, namely, that employers under the protection of the Workmen's Compensation Act "shall not be liable to respond in damages at common law or by statute for the injury or death of any employee, however occurring", is susceptible of two constructions—the one would measure the words as they stand alone; the other would appraise them in the light of other phraseology of the same section and of other provisions of the act and of the various complexities of the situation as herein undertaken to be discussed. We do not share the view that this is essentially a legislative matter and that the above-quoted words of the statute must be literally construed and the effect given to them which the phrase imports when standing alone. True, the courts must administer the law as it is written and must not undertake to make law. But where a court is confronted with two constructions—the first destructive of personal rights in that it takes away the means of effectuating such rights and of obtaining redress for their breach, and the other not destructive of either rights or remedies but harmonizing with basic conceptions of personal justice—the latter is preferred. This is interpreting law, not making it. The courts will not recognize that there is an open gap in the law where by reasonable interpretation such undesired condition can be avoided. * * *

DEATHS DURING WEEK ENDED JUNE 10, 1933

[From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce]

	Week ended June 10, 1933	Corresponding week, 1932
Data from 85 large cities of the United States:		
Total deaths	7,939	7,826
Deaths per 1,000 population, annual basis	11.1	10.7
Deaths under 1 year of age	591	617
Deaths under 1 year of age per 1,000 estimated live births [1]	49	50
Deaths per 1,000 population, annual basis, first 23 weeks of year	11.7	12.2
Data from industrial insurance companies:		
Policies in force	67,832,442	72,767,250
Number of death claims	12,540	13,673
Death claims per 1,000 policies in force, annual rate	9.6	9.8
Death claims per 1,000 policies, first 23 weeks of year, annual rate	10.5	10.8

[1] 81 cities.

PREVALENCE OF DISEASE

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

Reports for Weeks Ended June 17, 1933, and June 18, 1932

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended June 17, 1933, and June 18, 1932

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended June 17, 1933	Week ended June 18, 1932	Week ended June 17, 1933	Week ended June 18, 1932	Week ended June 17, 1933	Week ended June 18, 1932	Week ended June 17, 1933	Week ended June 18, 1932
New England States:								
Maine	1	3	-------	8	1	114	0	0
New Hampshire	-------	1	-------	-------	55	79	0	0
Vermont	1	5	-------	-------	56	203	0	0
Massachusetts	16	22	-------	1	608	732	1	3
Rhode Island	2	6	-------	-------	-------	12	0	0
Connecticut	4	-------	3	-------	123	193	0	2
Middle Atlantic States:								
New York	60	96	[1] 5	[1] 9	1,508	1,801	3	9
New Jersey	24	28	2	9	777	605	1	3
Pennsylvania	47	70	-------	-------	1,005	983	4	6
East North Central States:								
Ohio	28	13	76	5	71	1,027	1	1
Indiana	8	17	14	6	125	91	1	5
Illinois	24	48	13	12	442	692	3	7
Michigan	51	15	3	7	630	2,445	1	0
Wisconsin	5	12	10	4	220	934	1	0
West North Central States:								
Minnesota	9	7	1	3	157	68	1	0
Iowa	3	12	-------	-------	45	6	0	0
Missouri	22	32	-------	-------	141	50	1	1
North Dakota	-------	1	-------	-------	131	64	2	0
South Dakota	-------	2	-------	-------	4	7	0	0
Nebraska	4	3	-------	-------	58	2	0	0
Kansas	5	6	-------	2	106	169	1	2
South Atlantic States:								
Delaware	-------	-------	-------	-------	17	-------	0	0
Maryland [2 3 4]	11	8	3	4	32	78	0	0
District of Columbia [3]	1	5	-------	-------	21	24	0	0
Virginia	9	-------	-------	-------	150	-------	0	-------
West Virginia	-------	10	-------	16	54	202	2	0
North Carolina	9	5	4	1	392	545	1	0
South Carolina [4]	3	6	-------	194	194	115	0	0
Georgia [4]	6	5	-------	41	94	61	0	0
Florida [4]	3	19	1	6	9	21	0	0
East South Central States:								
Kentucky	6	7	9	-------	31	13	0	1
Tennessee	5	7	5	22	208	4	0	1
Alabama [4]	12	13	3	9	26	5	1	0
Mississippi	3	4	-------	-------	-------	-------	0	1

See footnotes at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended June 17, 1933 and June 18, 1932—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended June 17, 1933	Week ended June 18, 1932	Week ended June 17, 1933	Week ended June 18, 1932	Week ended June 17, 1933	Week ended June 18, 1932	Week ended June 17, 1933	Week ended June 18, 1932
West South Central States:								
Arkansas	4	1	----	19	130	1	1	0
Louisiana	7	18	12	1	18	6	1	0
Oklahoma [4]	4	7	15	9	128	117	0	0
Texas [4]	37	17	77	10	753	41	1	0
Mountain States:								
Montana [2]	----	----	1	4	20	166	1	0
Idaho [2]	----	----	----	1	9	1	0	0
Wyoming [2]	----	----	----	----	4	30	0	0
Colorado [2]	2	3	----	----	6	61	0	1
New Mexico	8	5	----	----	19	18	1	0
Arizona	----	----	----	4	----	5	0	0
Utah [2]	----	----	----	----	59	----	0	0
Pacific States:								
Washington	4	8	----	----	83	101	0	0
Oregon [2]	3	10	12	19	44	157	0	0
California	28	48	20	42	771	424	3	0
Total	479	605	289	468	9,535	12,473	33	44

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended June 17, 1933	Week ended June 18, 1932	Week ended June 17, 1933	Week ended June 18, 1932	Week ended June 17, 1933	Week ended June 18, 1932	Week ended June 17, 1933	Week ended June 18, 1932
New England States:								
Maine	1	0	12	32	0	0	4	1
New Hampshire	0	0	13	19	0	0	0	0
Vermont	0	0	7	15	0	6	0	0
Massachusetts	0	0	215	305	0	0	2	3
Rhode Island	0	0	20	40	0	0	1	0
Connecticut	1	3	39	73	0	0	0	1
Middle Atlantic States:								
New York	2	3	449	706	0	0	20	15
New Jersey	0	2	100	217	0	0	5	3
Pennsylvania	0	0	341	502	0	0	11	21
East North Central States:								
Ohio	0	4	406	129	6	22	20	10
Indiana	0	0	46	32	4	14	10	7
Illinois	1	3	208	286	5	9	12	21
Michigan	1	0	254	389	0	3	4	1
Wisconsin	0	2	92	57	8	1	0	1
West North Central States:								
Minnesota	0	0	50	55	1	4	1	3
Iowa	0	0	17	13	10	20	2	0
Missouri	0	0	23	17	0	2	6	5
North Dakota	0	1	6	5	1	1	1	1
South Dakota	0	0	6	7	0	1	4	3
Nebraska	0	0	4	4	8	6	0	0
Kansas	0	0	11	13	1	14	5	4
South Atlantic States:								
Delaware	0	0	3	8	0	0	0	0
Maryland [2 3 4]	0	0	42	45	0	0	2	7
District of Columbia [2]	0	0	4	10	0	0	0	0
Virginia	0	1	23	----	0	----	21	----
West Virginia	0	0	18	14	0	1	5	25
North Carolina	0	1	27	19	0	1	27	37
South Carolina [4]	0	0	1	1	0	1	30	41
Georgia [4]	0	0	3	4	0	0	37	25
Florida [4]	0	0	1	3	0	0	5	1
East South Central States:								
Kentucky	0	0	19	32	0	6	20	22
Tennessee	0	0	4	12	0	1	27	34
Alabama [4]	1	0	10	6	3	3	18	12
Mississippi	0	3	3	2	0	3	3	31

See footnotes at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended June 17, 1933, and June 18, 1932—Continued

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended June 17, 1933	Week ended June 18, 1932	Week ended June 17, 1933	Week ended June 18, 1932	Week ended June 17, 1933	Week ended June 18, 1932	Week ended June 17, 1933	Week ended June 18, 1932
West South Central States:								
Arkansas	0	0	1	1	0	3	17	12
Louisiana	1	1	4	2	0	0	19	24
Oklahoma [5]	0	0	6	14	7	10	19	13
Texas [4]	1	1	13	13	20	17	52	10
Mountain States:								
Montana [2]	0	0	1	10	0	15	3	0
Idaho [2]	0	0	0	0	2	0	1	2
Wyoming [2]	0	0	4	3	0	0	1	1
Colorado [2]	0	0	14	24	1	0	0	1
New Mexico	0	0	0	1	0	0	0	4
Arizona	1	0	8	2	0	0	1	2
Utah [3]	0	1	4	0	0	0	0	0
Pacific States:								
Washington	0	2	26	17	6	16	1	3
Oregon [2]	0	0	15	3	20	8	2	6
California	1	2	132	126	18	5	9	16
Total	11	30	2,705	3,290	121	198	433	450

[1] New York City only.
[2] Rocky Mountain spotted fever, week ended June 17, 1933, 29 cases: 4 cases in Maryland, 2 cases in District of Columbia, 9 cases in Montana, 3 cases in Idaho, 5 cases in Wyoming, 1 case in Colorado, and 5 cases in Oregon.
[3] Week ended Friday.
[4] Typhus fever, week ended June 17, 1933, 59 cases: 1 case in Maryland, 5 cases in South Carolina, 13 cases in Georgia, 3 cases in Florida, 24 cases in Alabama, and 13 cases in Texas.
[5] Figures for 1933 are exclusive of Oklahoma City and Tulsa and for 1932 are exclusive of Tulsa only.

SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of cases reported monthly by States is published weekly and covers only those States from which reports are received during the current week:

State	Meningococcus meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
April 1933										
Colorado	3	14	-------	-------	38	-------	1	130	17	2
May 1933										
Arizona	7	8	4	1	466	1	0	43	2	2
Colorado	-------	11	-------	-------	60	-------	0	144	8	2
Florida	1	26	12	11	202	11	2	10	0	8
Iowa	4	29	2	-------	319	-------	0	104	104	6
New Jersey	6	100	13	1	5,780	-------	3	1,022	0	25
Ohio	1	93	229	1	2,305	-------	5	3,098	20	40
South Carolina	-------	118	704	724	1,412	300	0	9	4	51
South Dakota	-------	6	2	-------	98	-------	1	32	0	5
Wisconsin	5	12	99	-------	1,470	-------	3	513	21	10
Wyoming	-------	1	-------	-------	65	-------	1	39	2	-------

April 1933

	Cases
Colorado:	
Chicken pox	257
Impetigo contagiosa	17
Mumps	369
Paratyphoid fever	1
Rocky Mountain spotted fever	1
Septic sore throat	1
Vincent's angina	2
Whooping cough	41

May 1933

	Cases
Anthrax:	
New Jersey	1
Chicken pox:	
Arizona	52
Colorado	401
Florida	79
Iowa	185
New Jersey	1,717
Ohio	1,920
South Carolina	109
South Dakota	132
Wisconsin	2,419
Wyoming	52
Conjunctivitis:	
Iowa	1
Diarrhea:	
South Carolina	1,063
Dysentery:	
Arizona	2
Florida	3
Food poisoning:	
Ohio	35
German measles:	
Arizona	10
Iowa	16
New Jersey	88
Ohio	349
Hookworm disease:	
South Carolina	101
Impetigo contagiosa:	
Colorado	31
Iowa	2

May 1933—Continued

	Cases
Lead poisoning:	
Ohio	6
Lethargic encephalitis:	
Florida	1
New Jersey	2
Ohio	5
South Carolina	3
Wisconsin	1
Mumps:	
Arizona	79
Colorado	267
Florida	54
Iowa	414
New Jersey	1,297
Ohio	278
South Carolina	74
South Dakota	19
Wisconsin	499
Wyoming	3
Ophthalmia neonatorum:	
New Jersey	1
Ohio	79
South Carolina	12
Paratyphoid fever:	
Florida	2
South Carolina	7
Psittacosis:	
South Dakota	1
Puerperal septicemia:	
Ohio	2
South Dakota	1
Rabies in animals:	
New Jersey	26
Rocky Mountain spotted fever:	
Colorado	7
Wyoming	31
Septic sore throat:	
Colorado	6
Ohio	321
South Dakota	1
Wyoming	1

May 1933—Continued

	Cases
Tetanus:	
Colorado	1
New Jersey	2
Ohio	2
Trachoma:	
Arizona	20
New Jersey	5
Ohio	2
Trichinosis:	
Iowa	1
New Jersey	1
South Dakota	1
Tularaemia:	
South Carolina	1
Wisconsin	1
Wyoming	10
Typhus fever:	
Florida	2
South Carolina	2
Undulant fever:	
Arizona	4
Colorado	1
Florida	1
Iowa	18
New Jersey	2
Ohio	9
Wisconsin	5
Vincent's angina:	
Colorado	5
Iowa	3
Whooping cough:	
Arizona	96
Colorado	52
Florida	83
Iowa	70
New Jersey	715
Ohio	597
South Carolina	448
South Dakota	10
Wisconsin	824
Wyoming	31

WEEKLY REPORTS FROM CITIES

City reports for week ended June 10, 1933

State and city	Diphtheria cases	Influenza cases	Influenza deaths	Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
Maine:											
Portland	0	-------	1	2	0	5	-	0	0	0	17
New Hampshire:											
Concord	0	-------	0	0	0	0	0	1	0	0	7
Manchester	0	-------	0	0	0	2	0	0	0	0	12
Nashua	0	-------	0	1	0	1	0	0	0	0	-------
Vermont:											
Barre	0	-------	0	0	0	0	0	1	0	3	2
Burlington	0	-------	0	0	0	0	0	0	0	0	3
Massachusetts:											
Boston	6	-------	0	261	9	69	0	9	1	46	204
Fall River	0	-------	0	0	0	3	0	2	0	5	22
Springfield	0	-------	0	1	0	7	0	0	1	8	28
Worcester	0	-------	0	57	2	0	0	0	0	5	24
Rhode Island:											
Pawtucket	0	-------	0	1	0	0	0	0	0	0	13
Providence	4	-------	0	2	4	16	0	2	0	13	47
Connecticut:											
Bridgeport	0	-------	1	16	0	15	0	1	0	0	31
Hartford	0	-------	0	2	2	12	0	0	0	1	25
New Haven	0	-------	1	6	0	1	0	0	0	24	45
New York:											
Buffalo	2	-------	2	74	13	32	0	8	0	24	156
New York	36	4	8	828	117	131	0	98	12	157	1,450
Rochester	0	-------	0	2	3	23	0	1	1	8	80
Syracuse	0	-------	0	0	2	8	0	2	0	15	42
New Jersey:											
Camden	1	-------	0	12	0	5	0	2	0	0	29
Newark	0	-------	0	85	12	4	0	6	0	45	110
Trenton	0	-------	1	31	2	5	0	3	0	4	37

City reports for week ended June 10, 1933—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Pennsylvania:											
Philadelphia	4		1	475	22	66	0	38	2	20	421
Pittsburgh	4	1	0	8	14	61	0	11	0	67	149
Reading	2		0	16	2	3	0	1	1	4	27
Scranton	0			1		2	0		1	3	
Ohio:											
Cincinnati	1		2	17	3	26	0	2	0	3	132
Cleveland	5	37	0	4	14	115	0	6	3	39	203
Columbus	0		0	6	3	32	0	4	0	0	75
Toledo	1		0	108	1	94	0	6	0	3	68
Indiana:											
Fort Wayne	4		0	0	2	8	0	1	0	0	28
Indianapolis	0		1	84	12	7	0	3	0	14	
South Bend	0		0	2	1	1	0	0	0	0	18
Terre Haute	0		0	16	2	4	0	0	0	2	22
Illinois:											
Chicago	3	5	2	293	35	214	0	57	0	28	763
Cicero	2		0	8	0	5	0	0	0	0	4
Springfield											
Michigan:											
Detroit	18	1	0	243	7	55	0	15	2	116	230
Flint	0	2	0	2	5	2	0	0	0	0	28
Grand Rapids	0		0	1	2	4	0	1	0	11	34
Wisconsin:											
Kenosha	0		0	2	0	0	0	0	0	11	2
Madison	0			28		2	0		0	6	
Milwaukee	0		0	2	1	36	0	9	0	78	103
Racine	1		0	0	0	12	0	0	0	14	12
Superior	0		0	1	0	0	0	1	0	9	9
Minnesota:											
Duluth	0		0	18	0	0	0	2	0	50	18
Minneapolis	2		0	16	2	24	0	1	0	31	98
St. Paul	0		0	60	5	5	0	4	0	72	64
Iowa:											
Des Moines	2			2		5	0		0	0	30
Sioux City	0			1		4	0		0	2	
Waterloo	0			0		0	1	0	0	1	
Missouri:											
Kansas City	1		0	18	3	19	0	6	0	1	96
St. Joseph	3		0	6	1	0	0	1	2	1	10
St. Louis	11		0	136	6	10	0	7	1	11	221
North Dakota:											
Fargo	0		0	0	0	0	0	0	0	0	
Grand Forks	0		0	0	0	0	0	0	0	1	
South Dakota:											
Aberdeen	0		0	0	0	0	0	0	0	0	
Sioux Falls	0		0	0	0	1	0	0	0	0	9
Nebraska:											
Omaha	3		0	113	4	3	1	1	1	16	48
Kansas:											
Topeka	0		0	27	0	1	0	1	0	0	10
Wichita	0		0	0	2	0	0	0	0	7	36
Delaware:											
Wilmington	0		0	7	1	1	0	0	0	6	26
Maryland:											
Baltimore	2		1	4	12	36	0	8	2	70	197
Cumberland	0		0	4	0	0	0	0	0	0	8
Frederick	0		0	0	0	0	0	0	0	0	3
District of Columbia:											
Washington	0	1	1	22	8	8	0	19	1	3	150
Virginia:											
Lynchburg	2		0	28	1	2	0	0	0	18	11
Norfolk	0		0	42	0	0	0	3	0	0	34
Richmond	1		0	0	4	5	0	7	1	13	51
Roanoke	1		0	2	1	1	0	1	0	0	20
West Virginia:											
Charleston	0		0	0	1	0	0	0	0	2	10
Huntington	0		0	0	0	0	0	0	0	0	
Wheeling	0		0	6	0	3	0	1	0	7	23
North Carolina:											
Raleigh	0		0	0	2	0	0	0	0	0	19
Wilmington	0		0	11	0	0	0	1	0	0	6
Winston-Salem	1		0	3	1	10	0	4	0	3	17

City reports for week ended June 10, 1933—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
South Carolina:											
Charleston	0	7	0	0	2	1	0	1	0	1	23
Columbia	0	-------	0	0	1	0	0	0	0	0	22
Georgia:											
Atlanta	0	4	0	19	2	1	0	3	4	18	88
Brunswick	0	-------	0	0	0	0	0	0	0	0	3
Savannah	0	2	0	0	1	0	0	3	2	0	28
Florida:											
Miami	0	1	0	0	0	0	0	2	0	25	24
Tampa	2	-------	0	0	0	1	0	0	0	1	30
Kentucky:											
Ashland	0	-------	0	0	0	2	0	0	0	0	-------
Lexington	0	-------	0	2	0	0	0	2	0	0	10
Louisville	0	1	0	7	5	13	0	2	4	4	76
Tennessee:											
Memphis	1	-------	1	71	12	0	0	5	1	27	85
Nashville	0	-------	0	4	2	0	0	2	1	2	47
Alabama:											
Birmingham	0	-------	0	1	4	3	0	3	1	2	52
Mobile	0	-------	0	0	0	2	0	3	0	0	21
Montgomery	4	-------	-------	0	-------	1	0	-------	2	0	-------
Arkansas:											
Fort Smith	0	-------	-------	0	-------	0	0	-------	0	1	-------
Little Rock	0	-------	0	46	1	3	0	1	0	0	4
Louisiana:											
New Orleans	4	3	0	8	6	4	0	15	1	5	154
Shreveport	0	-------	0	1	2	1	0	3	0	0	32
Oklahoma:											
Oklahoma City	0	20	0	40	5	0	0	2	0	0	41
Tulsa	0	-------	0	34	0	3	0	0	1	14	-------
Texas:											
Dallas	2	-------	0	20	3	0	1	1	1	0	52
Fort Worth	1	-------	0	0	1	0	0	3	0	0	31
Galveston	0	-------	0	0	3	0	0	3	0	0	19
Houston	2	-------	0	1	2	0	0	6	4	1	66
San Antonio	1	-------	2	5	1	0	0	7	0	1	72
Montana:											
Billings	0	-------	0	0	0	0	0	0	0	0	3
Great Falls	0	-------	0	0	1	0	0	0	0	6	6
Helena	0	-------	0	0	0	0	0	0	0	0	3
Missoula	0	-------	0	1	0	1	0	0	0	0	5
Idaho:											
Boise	0	-------	0	0	0	0	1	1	0	2	5
Colorado:											
Denver	2	21	0	1	5	8	0	5	0	8	78
Pueblo	0	-------	0	0	1	0	0	0	0	2	12
New Mexico:											
Albuquerque	1	-------	0	0	1	0	0	4	0	6	7
Utah:											
Salt Lake City	1	-------	0	34	3	4	0	0	0	32	42
Nevada:											
Reno	0	-------	0	0	1	0	0	0	0	0	8
Washington:											
Seattle	0	-------	-------	1	-------	4	0	-------	0	13	-------
Spokane	0	-------	-------	6	-------	6	0	-------	0	0	-------
Tacoma	0	-------	0	1	0	0	0	0	0	0	13
Oregon:											
Portland	0	-------	0	10	3	12	3	2	0	0	53
Salem	0	-------	-------	2	-------	0	0	-------	0	0	-------
California:											
Los Angeles	12	12	1	359	5	48	10	20	1	66	251
Sacramento	0	-------	0	1	1	3	0	2	0	46	26
San Francisco	1	-------	0	2	2	3	0	11	0	40	147

City reports for week ended June 10, 1933—Continued

State and city	Meningococcus meningitis		Poliomyelitis cases	State and city	Meningococcus meningitis		Poliomyelitis cases
	Cases	Deaths			Cases	Deaths	
New York:				Missouri:			
New York	3	2	0	Kansas City	1	0	0
Pennsylvania:				District of Columbia:			
Philadelphia	2	1	0	Washington	1	1	0
Pittsburgh	1	0	0	Georgia:			
Ohio:				Atlanta	0	1	0
Toledo	1	1	0	Washington:			
Indiana:				Seattle	0	0	1
Indianapolis	2	0	0	California:			
Illinois:				Los Angeles	1	0	1
Chicago	7	6	0	San Francisco	1	0	0
Michigan:							
Detroit	0	0	1				
Wisconsin:							
Milwaukee	2	1	0				

Lethargic encephalitis.—Cases: Boston, 2; New York, 2; Chicago, 1; Detroit, 1; Grand Rapids, 1; Milwaukee, 1; St. Paul, 2; Birmingham, 1.

Pellagra.—Cases: Washington, 1; Charleston, S.C., 1; Atlanta, 1; Savannah, 2; Miami, 2; Birmingham, 1; New Orleans, 1; Oklahoma City, 1; Dallas, 1; Albuquerque, 1.

Rabies (in man).—Memphis, 1 case and 1 death.

Typhus fever.—Cases: Savannah, 1; Tampa, 2; New Orleans, 1.

FOREIGN AND INSULAR

CANADA

Provinces—Communicable diseases—Two weeks ended June 3, 1933.—The Department of Pensions and National Health of Canada reports cases of certain communicable diseases for the 2 weeks ended June 3, 1933, as follows:

Disease	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
Cerebrospinal meningitis		1			2	1	1			5
Chicken pox		2		293	496	74	69	42	110	1,086
Diphtheria			1	28	22	18	6		2	77
Erysipelas				12	4	4	2	2		24
Influenza				1	1		160		3	165
Lethargic encephalitis					1				1	2
Measles			18	645	215	5	5		41	929
Mumps					229	41	5		41	316
Paratyphoid fever		1			4					5
Pneumonia (all forms)		4			9		16		6	35
Poliomyelitis					3	1				4
Scarlet fever		9	33	80	151	22	27	6	25	353
Smallpox					1		1			2
Trachoma							34			34
Tuberculosis	6		48	127	123	16	13	4	30	367
Typhoid fever			3	25	13	6	2	1	4	54
Undulant fever					6					6
Whooping cough				133	155	96	11	9	55	459

Ontario Province—Communicable diseases—Four weeks ended May 27, 1933.—The Department of Health of Ontario Province, Canada, reports certain communicable diseases for the 4 weeks ended May 27, 1933, as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Cerebrospinal meningitis	3	4	Poliomyelitis	1	
Chicken pox	857		Scarlet fever	265	1
Diphtheria	29		Septic sore throat	2	
Erysipelas	19		Smallpox	3	
German measles	45		Syphilis	91	
Gonorrhea	107		Tetanus		1
Influenza	16	3	Tuberculosis	174	41
Lethargic encephalitis	1		Tularaemia	1	
Measles	564		Typhoid fever	19	1
Mumps	729		Undulant fever	8	
Paratyphoid fever	11		Whooping cough	365	1
Pneumonia		121			

LATVIA

Communicable diseases—February–April 1933.—During the months of February, March, and April 1933, certain communicable diseases were reported in Latvia as follows:

Disease	Cases			Disease	Cases		
	February	March	April		February	March	April
Cerebrospinal meningitis	4	5	5	Poliomyelitis	2	2	
Diphtheria	92	76	56	Puerperal septicemia	8	2	2
Erysipelas	19	31	27	Scarlet fever	40	59	68
Influenza	1155	1893	840	Tetanus			3
Leprosy		1	1	Trachoma	82	84	59
Lethargic encephalitis			1	Typhoid fever	79	36	42
Measles	695	888	823	Typhus fever		2	
Mumps	159	176	136	Whooping cough	152	150	98
Paratyphoid fever	4	6	7				

PUERTO RICO

Communicable diseases—Four weeks ended April 22, 1933.—During the 4 weeks ended April 22, 1933, cases of certain communicable diseases were reported in Puerto Rico, as follows:

Disease	Cases	Disease	Cases
Chicken pox	137	Ophthalmia neonatorum	6
Colibacillosis	2	Pellagra	7
Diphtheria	50	Puerperal fever	5
Dysentery	359	Syphilis	21
Erysipelas	1	Tetanus	5
Filariasis	5	Tetanus, infantile	5
Framboesia, tropical	1	Trachoma	7
Influenza	108	Tuberculosis	381
Malaria	1,619	Typhoid fever	17
Measles	157	Whooping cough	148
Mumps	19		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

CHOLERA

[C indicates cases; D, deaths; P, present]

Place		Nov. 13–Dec. 10, 1932	Dec. 11, 1932–Jan. 7, 1933	Jan. 8–Feb. 4, 1933	Feb. 5–Mar. 4, 1933	Week ended— March 1933			April 1933					May 1933				June 1933		
						11	18	25	1	8	15	22	29	6	13	20	27	3	10	17
China:																				
Amoy	C		6																	
Canton	C	1																		
Macao	C							1												
	D							1												
Swatow	C															2				
India	C	3,453	4,524	3,396	3,171	1,052	1,695	2,115	3,016	2,583	2,642									
	D	1,907	2,400	1,721	5,170	530	856	1,043	1,423	1,311	1,277									
Bombay	C			1	1						1					1	1			
Calcutta	C	53	54	110	114	50	53	93	131	136	184	186	264	186	192	188	124			
Chittagong	C				1			1	4	3	8	5		10	8	2	1			
Colong	C												1							
Rangoon	C										1					1				
India, French: Chandernagor	C			1	2															
Indo-China (see also table below):																				
Pnom-Penh	C		1						1							1	1	1		
Saigon and Cholon	C			2					1		1	2	1							
Philippine Islands:																				
Bohol Province	C																15	40	14	13
	D																12	20	9	7
Cebu Province	C				17	2												1		
Iloilo Province—Iloilo	C													1						
	D													1						
Leyte Province	C	7	80	110	78	23		1	2		9	3	38	9		9	4		2	
	D	7	44	76	56	21		1	2		7	4	35	8		8	4		2	
Rizal Province	C													1						
Samar Province	C	35	135	121				[1] 186			67					29				3
	D	26	101	75				[1] 144			50					23				3
Siam	C		1	2								1		1						
On vessel: S.S. Dunana at Madras	D																1			

[1] For month of March 1933.

Place		November 1932	December 1932	January 1933			February 1933			March 1933			April 1933		
				1-10	11-20	21-31	1-10	11-20	21-28	1-10	11-20	21-31	1-10	11-20	21-30
Indo-China (French) (see also table above):															
Cambodia [2]	C	1	5				9		1		2	2	5		4
	D	1	2				6				1	2	5		2
Cochin-China [2]	C	1	8	1	4	2	9	2	1	8	4	2	2	7	
	D	1	6	1	1		6	2	1	7	3	2	2	7	

[2] Reports incomplete.

PLAGUE [1]

[C indicates cases; D, deaths; P, present]

Place		Nov. 13–Dec. 10, 1932	Dec. 11, 1932–Jan. 7, 1933	Jan. 8–Feb. 4, 1933	Feb. 5–Mar. 4, 1933	Week ended— March 1933			April 1933					May 1933			
						11	18	25	1	8	15	22	29	6	13	20	27
Angola	C	P			P												
Argentina:																	
Cordoba Province	C		2	1	5			5				1					8
Jujuy Province	C			10	6												
Rosario	C							2									
Salta Province	C	12															
San Luis Province [2]	C	P											7				
Santa Fe	C		1														
Belgian Congo	C		1										P				
Bolivia: Tomina Province	C				P								P				
British East Africa (see also table below):																	
Tanganyika	D	1		2		1											1
Uganda	C	194	141	58	40	9	10	9	16	12	8						
	D	169	134	58	40	9	10	9	16	12	8						
Ceylon:																	
Central Province	C			9			4	2									
	D			7			4	2									
Colombo	C	11	4	5	10	11		1	1		1						
	D	7	3	3	7	9		1	1								
Plague-infected rats			4		4												

[1] Including plague in the United States and its possessions.
[2] Several cases of plague with 1 death were reported at Quines, San Luis Province, Argentina, on Dec. 9, 1932.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

PLAGUE

[C indicates cases; D, deaths; P, present]

Place		Nov. 13–Dec. 10, 1932	Dec. 11, 1932–Jan. 7, 1933	Jan. 8–Feb. 4, 1933	Feb. 5–Mar. 4, 1933	Week ended— March 1933			April 1933					May 1933			
						11	18	25	1	8	15	22	29	6	13	20	27
Dutch East Indies:																	
Batavia	C						[2] 1										
West Java	C	610	1,152	1,329	1,152					271			228				
	D	608	745							271			227				
Ecuador. (See table below.)																	
Egypt:																	
Alexandria	C		2	1		1						1					
Assiout	C		6	4	4	4	2		2	4	4	2	2	1	4	3	2
Minieh	C						1	1				1					
France: Marseille	C		1														
Hawaii Territory:																	
Hawaii Island:																	
Hamakua—Kukaiau	C			1													
	D			1													
Plague-infected rats			2	7													
Paauilo—Plague-infected rats		1	11	1													
Maui Island—Makawao:																	
Plague-infected rats				1													
Omaopio—Plague-infected rats				1													
India	C	6,104	6,900	6,662	6,390	1,587	1,390	1,108	1,324	801							
	D	3,060	4,349	4,191	3,775	970	887	687	954	513							
Bassein	C			1	2	1	4	3	4	4		6	3	2	1		
Plague-infected rats		1	1	1	2				1		1				1	1	1
Bombay	C				3	2	1	6	6	2	2	3	3	2	2	2	
Plague-infected rats		15	16	28	68	26	26	25	44	22	23	28	30	6	13	7	8
Madras Presidency	C	546	446	508	378	57	60				5	10					
	D	197	249	170	173	27	30				2	1					
Rangoon	C	3	1	1	2	2									1		
Plague-infected rats				1	2	1											
Indo-China. (See table below.)																	
Iraq: Baghdad	C	1			3		1								2		1
Madagascar. (See table below.)																	
Morocco	C	10	16		4	14	8	9	2		12	8	8	2			
Peru. (See table below.)																	
Senegal. (See table below.)																	
Siam	C	9	12	7	16	10	1			1	1						

South-West Africa.[4]																	
Straits Settlements: Singapore	C											1[1]	1				
Syria: Beirut	C	12										1					
Union of South Africa: Orange Free State	C	P	P	4	1									1			
United States: California—San Benito Bounty—Plague-infected ground squirrels				1													
On vessel: S.S. Kingsborough at port in Argentina	C							1									

[1] Imported.
[4] 227 cases of plague with 53 deaths were reported in Ovamboland, South-West Africa, up to Dec. 17, 1932. Antiplague measures have been taken.

Place		December 1932	January 1933	February 1933	March 1933	April 1933	May 1933
British East Africa (see also table above): Kenya	C	8	6	11	6	6	1
Ecuador	C		1		3		35
Indo-China	C	3	4	4	4	7	8
	D	3	2	4	4	7	8
Madagascar:							
Province:							
Ambositra	C	149	158	161	155		
	D	125	146	149	154		
Antsirabe	C	57	63	72	63		
	D	56	61	72	62		
Fianarantsoa	C			46	64		
	D			42	63		
Maevatanana	C	9	2	6	5		

Place		December 1932	January 1933	February 1933	March 1933	April 1933	May 1933
Madagascar—Continued							
Province—Continued							
Miarinarivo	C	37	75	8	9		
	D	36	14	8	9		
Moramanga	C	186	163	23	48		
	D	183	159	23	46		
Tamatave	C	1			1		
	D	1			1		
Tananarive	C	186	198	219	175		
	D	179	190	207	168		
Peru	C	12	4	18	7	2	
Senegal:							
Dakar[5]	C	19	2	4	1	1	2
	D	17	2	4		1	1
Tivaouane[5]	C					1	

[5] Incomplete reports.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

SMALLPOX

[C indicates cases; D, deaths; P, present]

Place		Nov. 13–Dec. 10, 1932	Dec. 11, 1932–Jan. 7, 1933	Jan. 8–Feb. 4, 1933	Feb. 5–Mar. 4, 1933	Week ended— March 1933			April 1933					May 1933				June 3, 1933
						11	18	25	1	8	15	22	29	6	13	20	27	
Arabia:																		
Aden	C	3	1	2	1													
Muscat—Oman Sultanate	C																	44
	D																	11
Algeria:																		
Algiers	C	1	1															
Constantine Department	C						1											
Argentina: Chaco Territory	C				P													
Bolivia	C		5		39			21										
Brazil:																		
Parahyba—Joao Pessoa	C	P																
Pernambuco—Recife	C	4																
Porto Alegre (alastrim)	C	8	16	1														
British East Africa:																		
Kenya	C				14	1	18	4			5							
Tanganyika	C	66	49	95	56	25	18		4	5			8					
British South Africa:																		
Northern Rhodesia	C		6		1		13	8										
Southern Rhodesia	C	1	1	25	22						8							
Canada:																		
Alberta	C	1																
British Columbia	C									[1]6						[1]1		[1]1
Manitoba	C		13															
Ontario	C	3	5			3		2										
Toronto	C	3	3							[1]3								
Saskatchewan	C	3	1	5	31	4		10		[1]2						[1]5		[1]1
Ceylon:																		
Colombo	C	28	72	75	34	1	1	1	1	1	1							
Galle	C											39	7	2				
China:																		
Amoy	C			1	5	1		1	1	1		1	1					
Canton	C	180	762	504	234	26	17	10	14	13	10	11	6	3	3	1		
	D	14	23	13	1							1	1					
Chemulpo	C				17													
Dairen	C	2	1	4	5		2	2	1	1								

Foochow	C	P	P	P	P		P				P		P		P			
Hong Kong	C	2	18	78	169	53	43	37	36	36	14	20	14	6	8	3	2	
Macao	C		P	3	8	2	2	2	5	3	1			4				
Nanking	C	6	11	38	89	10	1		5		1		1		1			
Shanghai	C	13	23	41	28	16	7	8	7	9	8	15	7	4	12	8	9	3
Swatow	C	8	7	22	21	3	8	9	6	6	7	3		4	3	3		
Chosen. (See table below.)																		
Colombia: Cali	D	1																
Dahomey	C		5	22	32								26	2	9			
Dutch East Indies	C			1														
Egypt:																		
Alexandria	C	77	583	987	943	104	82	59	32	12	11	11	8	3	3		5	
	D	18	116	227	183	25	23	11	11	3	22	8	2	3	1		1	
Cairo	C	1	8	37	25	7		2		1	2	2	5	5	4	1	3	3
Gharbieh	C		37															
Port Said	C			2		1	2	3		3								
Suez	C			2	4	1	2											
Great Britain:																		
England and Wales	C	72	79	66	76	15	23	15	18	31	14	18	33	23	22	30	16	
London	C	68	73	59	66	13	21	11	17	24	9	13	29	20	18	27	14	
London and Great Towns	C	71	76	66	75	13	22	14	17	30	9	14	32	20	18	29	15	
Greece. (See table below.)																		
Honduras:																		
Puerto Castilla	C	1				2												
Tegucigalpa	D						8	6				1			7			3
Tela	C	1	2	4	6	1	2					1						
India	C	7,919	11,284	20,423	31,824	8,021	8,232	9,214	9,471	9,222	9,319							
	D	2,239	3,523	5,907	8,303	1,932	1,987	2,236	2,236	2,218	2,360							
Bassein	C				7	5	2	3	3	14	12	10	21	11	2	7	12	
	D				2	1	1	1	2	3	3	3	5	3	5	1	2	
Bombay	C	87	230	805	1,522	358	341	259	217	159	141	115	95	69	52	44	47	
	D	35	98	391	795	286	178	142	111	94	72	65	55	55	35	28	30	
Calcutta	C	103	301	961	1,637	299	392	460	369	295	245	213	168	118	82	81	61	
	D	47	213	672	1,147	188	281	314	270	244	188	180	133	97	72	74	46	
Cochin	C					2	2			2	1	1	1					
Karachi	C	14	25	45	47	29	22	23	41	34	31	31	34	11	13	18	10	
Madras	C	119	156	351	564	153	143	195	175	138	125	115	118	66	67	60	38	
Moulmein	C				1													
Negapatam	C	4	2	3	2		2		2	1		2	3	4		1	2	
Rangoon	C	2	2	5	20	3	2	2	4	7	1	2	5	1	6	2	8	
Tuticorin	C	13								1								
Vizagapatam	C		1						5	1			3	1		1		
India (French): Pondichery Territory	C	3	2															
Indo-China (see also table below): Saigon and Cholon	C		2		3		4	2	1			2						
Iraq:																		
Baghdad	C	31	13	8	4	1			1			1	1	3		1	1	
Basra	C	81	25	6	3			1	1					5		1		
Ireland: Belfast	C				1													
	D				1													

[1] For 2 weeks.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

SMALLPOX—Continued

[C indicates cases; D, deaths; P, present]

Place		Nov. 13–Dec. 10, 1932	Dec. 11, 1932–Jan. 7, 1933	Jan. 8–Feb. 4, 1933	Feb. 5–Mar. 4, 1933	Week ended— March 1933			April 1933					May 1933				June 3, 1933
						11	18	25	1	8	15	22	29	6	13	20	27	
Japan:																		
Kobe	C					1	1	1	2									
Nagoya	C				1													
Osaka	C				3	1	1		1	3	4		1				1	
Tokyo	C						1	1		3		2	1		1			
Yokohama	C											1	2					
Mexico:																		
Coahuila	C				1												1	1
Juarez	C				3								5				2	
Mexico, D.F	C	2		10	5			6		1		5	5		2			
Monterrey	D																2	
Saltillo	D	11	8	4	4	1		2			1			1	1			
San Luis Potosí	D		2									1						
Morocco. (See table below.)																		
Nigeria	C	1,581	583	401	1,878		444	118		853			408		5			
Persia	C	341	216	108	29	4	12	5	5	3	5	28	18	22	30	37		
	D	150	82	41	4	1	1	1	1	1	2	7	13	5	21	36		
Peru. (See table below.)																		
Poland	C		1											1		1		
Portugal:																		
Lisbon	C	9	12	4	4		1	1		1		1			1		1	
Oporto	C	14	9	5	5	1		1								1	1	
Siam: Bangkok	D			2	2		2	2										
Sierra Leone	C	13	10	217	36				63		14		8		18			
Sudan (Anglo-Egyptian)	C			57	34	19	6	3	4		12	1	5	3			2	1
Syria. (See table below.)																		
Turkey. (See table below.)																		
Union of South Africa:																		
Cape Province	C	P	P		P	P	P	P	P									
Orange Free State	C	P	P		P	P	P	P	P	P	P							
Transvaal	C	P	P	P														
Zanzibar	C				2													
On vessels:																		
S.S. Amassis at Alexandria	C			1														
S.S. British Engineer at Marseille	C	1																
S.S. Somersetshire at Suez	C	1		1														

S.S. British Splendour en route to Gibraltar	C	1																
S.S. Jervis Bay en route to Southampton	C	1																
	D	1																
S.S. Star of Alexandria at Alexandria	C		1															
S.S. Kohistan at Aden from Basra	C	1																
S.S. Volturno at Alexandria	C				1													
S.S. Arimondi at Massaoua	C				2													
S.S. Hatasu at Malta	C					1												
S.S. Talma at Hong Kong	C				1													
S.S. Karapara at Rangoon	C				1													
S.S. Nawab at Rangoon	C			1														
S.S. California at Liverpool	C							1										
S.S. Kalgan at Bangkok from Swatow	C						1											
S.S. Nordland at Alexandria	C								1									
S.S. Hong Kheng at Rangoon	C				1													
S.S. Hiram at Bangkok	C						1											
S.S. Arunda at Rangoon from Calcutta	C						1											
S.S. Haiching at Amoy	C							1										
S.S. City of Nagpur at Karachi	C										1							
S.S. Rajputana at Aden	C															1		
	D															1		
S.S. Santhia at Singapore from Hong Kong	C												P					
S.S. Baron Inchcape	C														P			

Place		November 1932	December 1932	January 1933	February 1933			March 1933			April 1933			May 1933		
					1-10	11-20	21-28	1-10	11-20	21-31	1-10	11-20	21-30	1-10	11-20	21-31
Indo-China (see also table above)	C	180	213	253	29	98	60	167	83	120	107	159				
	D	51	45	58	16	33	28	55	30	45	31	30				
Syria: Beirut	C	41	49	34	11	8		2	11	7	3	35		7	9	4

Place		November 1932	December 1932	January 1933	February 1933	March 1933	April 1933
Chosen	C			7	17	30	4
	D			1	5	7	2
Greece	C				3	4	6

Place		November 1932	December 1932	January 1933	February 1933	March 1933	April 1933
Morocco	C	53	81	14	14		23
Peru	C	67		38		7	
Turkey	C			5		1	3

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

TYPHUS FEVER

[C indicates cases; D, deaths; P, present]

Place		Nov. 13–Dec. 10, 1932	Dec. 11, 1932–Jan. 7, 1933	Jan. 8–Feb. 4, 1933	Week ended— February 1933			March 1933				April 1933					May 1933				June 3, 1933
					11	18	25	4	11	18	25	1	8	15	22	29	6	13	20	27	
Algeria:																					
Algiers Department	C	2		1				1			1	2			1		7	2			
Constantine Department	C	3		6	8	3	34	26	21	32	38	16	3	36	95	85	52	41			
Bone	C		1		1						2				3		1	1			
Argentina: Buenos Aires	C			6																	
Bolivia. (See table below.)																					
British East Africa: Uganda	C	16	17	17	4	4	7	4	3	9											
Bulgaria	C	12	5	2			4	5	24	18	6			9							
Chile (see also table below)	C	166	223	152	47	34		52	23	30	26	23	34								
Antofagasta	C			1		1								1							
Santiago	C									1											
China: Hankow	C			3			5														
Colombia: Cali	D	1																			
Czechoslovakia. (See table below.)																					
Egypt:																					
Alexandria	C		1	1							43			11	6	6	6	7	4	7	5
Beheira	C	2		40							2	4	1	10	19	12	14	15	12	12	12
Cairo	C								70												
Gharbieh	C																				
Port Said	C	1																			
Provinces	C		59	171				134		178											
Greece. (See table below.)																					
Guatemala. (See table below.)																					
Iraq: Baghdad	C											1			1			1		1	
Ireland: Belfast	C						1														
Irish Free State: Kerry County, Killarney district	C	16	5																		
Lithuania. (See table below.)																					
Mexico:																					
Mexico, D. F.	C	10	3	2	3	6	2		5	1	4	4			2	2	4	3			
San Luis Potosi	D										1										
Torreon	C	2																			
Morocco	C	22	43	63	4	4	66	64	11	26	9		3	6	6	2	6	10	8	7	
Palestine	C	2	1	1			1	1	1		2		1		1	1					
Persia	C	11	16	16	7	13	1	19	9	4	2	13	19	18	13	19	24	10	5		

Peru. (See table below.)																				
Poland	C	65	152	277	86	77	94	93	91	93	64	87	92	87	73	103	100	98	98	82	----
	D	6	8	26	6	4	5	5	8	6	2	4	8	6	9	1	3	8	4	6	----
Rumania	C	121	254	219	71	62	80	63	61	63	66	88	67	65	41	----	----	----	----	----	----
Tunisia: Tunis	C	1	9	35	1	20	8	5	2	10	24	9	4	17	26	----	9	3	20	9	7
Turkey (see also table below): Istanbul	C	----	3	5	----	----	1	----	3	----	1	----	----	1	----	----	----	----	----	----	----
Union of Socialist Soviet Republics. (See table below.)																					
Union of South Africa:																					
Cape Province	C	P	P	P	P	P	P	P	----	----	P	P	----	P	----	----	P	----	----	----	----
Natal	C	P	P	P	P	P	P	P	P	----	P	----	----	----	----	----	P	----	----	----	----
Orange Free State	C	P	P	P	P	P	P	P	P	----	P	P	----	P	----	----	P	----	----	----	----
Transvaal	C	P	P	P	----	----	----	----	P	----	----	----	----	----	----	----	----	----	----	----	----
Yugoslavia. (See table below.)																					
On vessel: S.S. Munplace at New Orleans from Progresso	C	----	----	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Place		November 1932	December 1932	January 1933	February 1933	March 1933	April 1933
Bolivia	C	----	4	29	33	72	50
Chile: Coquimbo Province	C	60	----	----	----	----	----
Czechoslovakia	C	----	----	----	13	9	----
Greece	C	----	15	10	2	3	----
Guatemala	C	----	3	6	9	11	14

Place		November 1932	December 1932	January 1933	February 1933	March 1933	April 1933
Lithuania	C	1	10	36	13	12	19
Peru	C	75	111	81	----	41	----
Turkey	C	15	14	23	11	8	12
Yugoslavia	C	3	11	35	125	12	----

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

YELLOW FEVER

[C indicates cases; D, deaths: P, present]

Place		Nov. 13–Dec. 10, 1932	Dec. 11, 1932–Jan. 7, 1933	Jan. 8–Feb. 4, 1933	Feb. 5–Mar. 4, 1933	Week ended— March 1933 11	18	25	April 1933 1	8	15	22	29	May 1933 6	13	20
Brazil:																
Ceara State	C	1														
Piauhy State	D		1													
French West Africa: Guinea	C	4		1												
	D	4		1												
Gold Coast	C				2									1		1
	D				2											
Guinea (Portuguese): Bissagos Islands	C			44												
	D			14												
Senegal:																
Bakel	C								1							
Dagana	C						1									
	D						1									
Podor	C							1								
Sudan (French): Keyes	C	2														
	D	2														

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