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CURRENT PREVALENCE OF COMMUNICABLE DISEASES IN THE UNITED STATES [1]

December 4–31, 1932

The prevalence of certain important communicable diseases, as indicated by weekly telegraphic reports from State health departments to the United States Public Health Service, is summarized in this report. The underlying statistical data are published weekly in PUBLIC HEALTH REPORTS, under the section entitled "Prevalence of Disease."

Influenza.—The undue prevalence of influenza in nearly all sections has continued throughout this period. In 37 States,[2] the District of Columbia, and New York City a total of 157,682 cases were reported during the four weeks ended December 31, the weekly reports climbing from 24,916 to 53,120 during this period. For the week ended January 7, 1933, 54,694 cases were reported in these States, a figure only slightly above the preceding week. These figures may be compared with reports of from 1,000 to 2,500 cases per week at this season during preceding nonepidemic periods. Table 1 shows, by geographic sections, the reported numbers of cases for recent weeks of this winter and corresponding weeks of last winter:

[1] From the Office of Statistical Investigations, U. S. Public Health Service. The numbers of States included for the various diseases are as follows: Typhoid fever, 47; poliomyelitis, 48; meningococcus meningitis, 48; smallpox, 48; measles, 45; diphtheria, 47; scarlet fever, 47; influenza, 38 States and New York City. District of Columbia is counted as a State in these reports.

[2] This area is composed of States having continuous records for four years. Kansas is omitted because the 106,481 cases reported during the 4-week period followed a special letter to physicians asking their cooperation in obtaining complete reports.

Weekly numbers of reported cases of influenza during certain weeks of 1932–33 and corresponding weeks of preceding years

Geographic area and years	Week ended—											
	Oct. 22	Oct. 29	Nov. 5	Nov. 12	Nov. 19	Nov. 26	Dec. 3	Dec. 10	Dec. 17	Dec. 24	Dec. 31	Jan. 7
37 States,* District of Columbia, and New York City:												
1932–33	1,279	1,094	1,346	1,028	2,968	6,146	13,873	24,916	33,928	45,718	53,120	54,694
1931–32	487	608	675	1,046	868	819	861	987	872	600	1,090	1,206
1930–31	550	665	835	910	1,004	997	1,098	1,182	1,219	1,189	1,080	2,623
1929–30	728	840	1,015	1,074	1,294	1,316	1,241	1,800	1,983	1,565	1,764	2,527
New England:												
1932–33	5	4	8	3	37	13	24	15	24	36	267	914
1931–32	17	13	10	8	18	3	17	11	24	15	22	25
Middle Atlantic:												
1932–33	38	26	15	21	37	23	30	50	77	227	813	1,213
1931–32	13	28	10	22	18	27	29	22	21	20	30	51
East North Central:												
1932–33	67	142	56	159	79	87	137	461	979	949	3,614	7,295
1931–32	25	38	35	52	25	52	21	125	13	25	76	80
West North Central:												
1932–33	1	5	3	0	9	3	130	133	237	1,578	[1] 5,494	2,596
1931–32	5	4	25	322	7	21	10	8	8	7	8	15
South Atlantic:												
1932–33	400	407	410	426	530	544	907	3,293	5,736	4,469	7,100	11,364
1931–32	315	380	404	461	569	544	540	530	507	322	540	586
East South Central:												
1932–33	60	53	75	77	475	2,109	4,473	8,568	10,801	6,910	8,522	5,089
1931–32	16	39	40	60	73	50	35	58	44	52	101	99
West South Central:												
1932–33	129	125	89	171	149	831	1,650	9,288	12,020	23,998	16,127	18,203
1931–32	29	34	59	36	46	41	82	99	81	41	77	157
Mountain:												
1932–33	73	82	300	226	667	702	4,529	1,131	2,014	4,799	7,452	5,696
1931–32	8	6	4	9	12	15	15	11	13	5	10	25
Pacific:												
1932–33	506	250	390	545	985	1,834	1,993	2,027	2,040	2,852	3,731	2,324
1931–32	59	66	88	76	100	66	102	123	161	113	226	168

* States included are as follows: *New England:* Maine, Vermont, Massachusetts, Rhode Island, Connecticut; *Middle Atlantic:* New Jersey; *East North Central:* Ohio, Illinois Michigan, Wisconsin; *West North Central:* Minnesota, Missouri, North Dakota, South Dakota, Nebraska; *South Atlantic:* Delaware, Maryland, West Virginia, South Carolina, Georgia, Florida; *East South Central:* Tennessee, Alabama; *West South Central:* Arkansas, Louisiana, Oklahoma, Texas; *Mountain:* Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah: *Pacific:* Washington, Oregon, California.

[1] Includes 4,618 cases reported from North Dakota.

The epidemic seems to have started in the West and South, with a peak in reported cases in California in the latter part of November. The southern tier of the Mountain States and several of the South Central States followed, with peaks in the first half of December and in the last half of December. The northern tier of the Pacific and Mountain States showed peaks of reported cases in the last half of December, as did also the majority of the North Central States. The peak of reported cases in Georgia came in the first half of December, but the majority of South Atlantic States reported the maximum number of cases during the first week of January, the last week for which records are now available. In the Middle Atlantic and New England States the epidemic was apparently in its earlier stages at the date of the latest report included here, the last week's report indicating the maximum cases up to that time. In its place of origin and its travel from west to east the present epidemic resembles the epidemics of 1928–29 and 1926. The 1918–19 pandemic, on the other hand, began in the northeast and traveled generally to the west and south.

Mortality records indicate that the cases have been of a mild type. A rise in the mortality from all causes in 85 cities (Weekly Health Index) began in the first week in December from an exceptionally low level that has persisted throughout 1932 and 1931. For the week ended December 31 the death rate (annual basis) was 14.7, as compared with about 12 in 1931 and 1930, and with about 13 to nearly 14 in 1929 and 1927. The rise in mortality in these cities in the 1928–29 epidemic began about the same calendar week that it did in this epidemic, and in the five weeks to the last of December, 1928, had risen from 12.7 to 18.0, as compared with a rise from 11.0 to 14.7 this year. The first week in January of 1929 the rate rose further to 19.5, but for the week ended January 7, 1933, it fell from 14.7 to 13.6.

The cities with the highest mortality thus far in the present epidemic are Denver, New Orleans, Memphis, Nashville, Cincinnati, Columbus, Des Moines, Pittsburgh, Richmond, Va., Washington, D. C., and El Paso.

Typhoid fever.—Typhoid fever continued its downward trend. The number of cases (680) reported for the current period was only about 50 per cent of the number reported for the preceding 4-week period. Compared with recent years the incidence was the lowest for this period in the four years for which data are available. It was approximately 45 per cent less than the incidence in 1931 and 1930 but only about 20 per cent below the incidence in 1929.

For the week ended January 7, 1932, there were 170 cases of typhoid fever reported from Chamberlain, S. Dak., a small town of 1,358 inhabitants.

Poliomyelitis.—The incidence of poliomyelitis continued considerably below the level of either of the two preceding years, but very closely approximated the incidence in 1929. The number of cases reported for the four weeks ended December 31 was 110, as compared with 266, 332, and 115 for the corresponding period in the years 1931, 1930, and 1929, respectively. Each geographic area shared in this favorable situation.

Smallpox.—The number of cases of smallpox reported for the current 4-week period represented only a normal seasonal increase. In relation to recent years the incidence still maintained the low level which has prevailed throughout the current year. The number of cases (512) was about 40 per cent of the number recorded for the corresponding period in 1931, 25 per cent of the 1930 figure, and 11 per cent of the number reported in 1929. Each geographic area showed a similar relationship to the preceding years.

Meningococcus meningitis.—The relatively low incidence of meningococcus meningitis which has prevailed throughout the year was maintained during the current 4-week period. The incidence, however, came closer to that for a corresponding period last year than during any other 4-week period in the current year. For the four weeks ended December 31 there were 241 cases reported, as against 280, 370, and 709 in 1931, 1930, and 1929, respectively. For the country as a whole and for each geographic area the incidence was the lowest for this period in recent years.

Diphtheria.—A normal seasonal decline in the incidence of diphtheria was reported from all sections of the country during the four weeks ended December 31. The number of cases (4,594) was the lowest for this period in the four recent successive years for which data are available. Each geographic area also reported appreciable decreases from the figures for the corresponding period in recent years.

Scarlet fever.—The reported current incidence of scarlet fever was about 16 per cent in excess of that for the corresponding period in each of the years 1931 and 1930 and about 9 per cent in excess of the figure for 1929. A comparison of geographic areas shows that the disease was considerably more prevalent in the Middle Atlantic, South Atlantic, and West South Central areas than it was at this time last year. In the Mountain region the incidence was approximately the same as that of last year, and in the Pacific area a decrease of about 13 per cent was reported.

Measles.—Reports indicated a normal seasonal increase of measles during the four weeks ended December 31. The total number of cases reported was 13,942, as compared with 14,298, 12,757, and 14,672 for the corresponding period in the years 1931, 1930, and 1929, respectively. Each geographic area except the New England and the Middle Atlantic showed an increase over last year, but the dis-

ease seemed to be most prevalent in the North and South Central areas. Michigan, Wisconsin, and North Dakota in the former group, and Texas in the latter group were mostly responsible for the increase in those groups. The Middle Atlantic States reported a decrease of approximately 2,000 from last year's figure, and the New England States, where the disease was unusually prevalent during December of last year, reported only 570 for the current period, as compared with 5,084 last year.

Deaths, all causes.—Deaths from all causes in large cities, as reported by the Bureau of the Census, rose from 11.2 for the preceding 4-week period to 13.4 for the four weeks ended December 31. This rate was the highest for a corresponding period in recent years since 1928, when the rate was 15.6. For this same period in 1931, 1930, and 1929 the rate was 11.4, 12.3, and 13.1, respectively. The cause of the increase was apparently influenza.

For the week ended January 7, 1933, the rate was 13.6, as compared with 14.1, 12.8, and 19.5 for the same week in the years 1931, 1930, and 1929, respectively. The first week of 1929 came during the influenza epidemic of that year.

THE PELLAGRA-PREVENTIVE VALUE OF AUTOCLAVED DRIED YEAST, CANNED FLAKED HADDOCK, AND CANNED GREEN PEAS

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The studies here reported were carried out at the Milledgeville State Hospital (formerly the Georgia State Sanitarium), Milledgeville, Ga. As in feeding experiments previously reported from this station (1) the substances under test were used as supplements to a basic diet designed to meet all known physiological requirements with the exception that it is deficient in the pellagra-preventive vitamin. When used alone this basic diet leads to the production of pellagra (2) within from three to six months. Any conspicuous prolongation of this period must therefore be attributed to the pellagra-preventive power of the substance with which it is supplemented. The general policy of permitting each test to run for at least one year, unless sooner terminated by significant developments, has been adhered to in these studies.

AUTOCLAVED YEAST

In their study of the problem of an experimental animal for pellagra Goldberger and Wheeler (3) were able to produce the syndrome known as blacktongue in the dog, a condition strikingly similar to human pellagra, by feeding with pellagra-producing diets. These

tests have since been extended to include a test of the relative pellagra-preventive potency of a large number of individual foods and foodstuffs, each of which has been found to bear a similar etiological and therapeutic relationship to both pellagra and blacktongue. These findings, together with the striking similarity of their clinical features, epidemiology and histopathology (4) have led to the conclusion that these conditions are analogous.

Early in the course of these studies it was found that dried yeast has a high degree of curative and preventive value in blacktongue. This led to a similar test (5) of this substance in human pellagra, the results of which were equally gratifying. Further studies (6) of dried yeast by feeding experiments in dogs showed that the factor in yeast responsible for the cure and prevention of blacktongue is inactivated or destroyed by heat sufficient to char the yeast but retains its potency after heating in the steam autoclave at a pressure of 15 pounds for 7½ hours. It was also shown by these studies that this factor is capable of being adsorbed by fuller's earth from an acidulated aqueous extract of either plain dried yeast or dried yeast which had been previously autoclaved. The aqueous extract of plain yeast was later tested in human pellagra (7) and found to be efficacious in both its treatment and prevention.

These studies thus definitely established the water solubility of the pellegra and blacktongue preventive factor and, in so far as the dog is concerned, the stability of this factor in the presence of the heat of the autoclave. They also established another important point, and one which does not appear to have been fully appreciated by the medical profession generally, viz, the practical exclusion of the protein factor *per se* as an essential agent in either the production or prevention of blacktongue or pellagra. The dried, watery extract of yeast is, even in relatively small quantity, highly protective against both conditions; and since this substance is very low in nitrogen, the amount of protein supplied by it is, at most, a negligible quantity.

Both the water-soluble and heat-stable properties of the accessory food factor concerned in pellagra are of prime practical importance in connection with ordinary cooking and the processing of foods incident to canning. The former having already been tested in man, it seemed advisable to make also this final confirmatory test of the latter. Furthermore, such a step is in keeping with the previously established policy of checking, so far as practicable, every important angle of the information relating to pellagra by actual test in man.

The yeast used was dried baker's yeast which had been exposed to the heat of the steam autoclave at 15 pounds pressure for 7½ hours. Tests on rats showed that the autoclaving process had destroyed practically all of the antineuritic vitamin. The approxi-

mate composition of the autoclaved yeast-supplemented diet used in the human test is given in Table 1.

Eighteen white female inmates came under observation on this diet, 15 of whom continued on it for a period of one year. No evidence of pellagra was observed.

In view of the fact that without the autoclaved yeast supplement pellagra would have developed within three to six months, freedom from the disease can be attributed only to the preventive effect of the autoclaved yeast.

CANNED HADDOCK

In studying the blacktongue and pellagra preventive value of the more moderately priced canned fish, Goldberger, Wheeler, Rogers, and Sebrell (8) found that canned flaked haddock contains the blacktongue-preventive factor, and when used in relatively large proportion the clinical manifestations of blacktongue were prevented. However, while 3 of their group of 6 dogs on the haddock-supplemented diet were apparently in good health at the end of 20 months, the other three, though they did not develop the usual symptoms of blacktongue, showed at autopsy a fatty degeneration of the liver, which condition has been reported by Sebrell (9).

Soon after the study of haddock was started in the dog, a similar study was begun in the human being. The basic diet to which the haddock was added was the same as that in the study of autoclaved yeast, with the exception that the flour and lard components were slightly increased and the cottonseed oil was reduced. The same commercial brand of canned flaked haddock was used in both the dog and human tests.

The approximate composition of the haddock-supplemented diet used in the human test is given in Table 2.

Sixteen colored female inmates were placed on this diet, all of whom after a period varying from two and one-half to six months showed to some degree one or more of the following symptoms: A characteristic pellagrous stomatitis or a more chronic, low-grade, often foul, congestion of the tongue and buccal mucosa, followed by denudation of the surface epithelium. Moist erosions and fissuring at the angles of the mouth, involving both the mucous and cutaneous surfaces; seborrhea about the nose; a moist soft caseous deposit, often a distinct line, on a reddened background, about the base of the nose, particularly in the nasio-labial folds, the angle formed by the nasal septum and upper lip, and the fold between the lower lip and chin. In a few instances similar changes were present between the toes and fingers and in the folds of the outer ear. Conjunctivitis or ophthalmia with maceration and excoriation of the skin covering the upper and lower eyelids and scaly incrustation and deposits about

the lid margins and canthi were frequently noted. In a few instances the folds of the groin and genitalia showed a moist, macerated, and excoriated condition. One developed a typical pellagrous skin eruption, and two showed a disturbance in gait characterized by slowness and uncertainty. There was occasional vomiting among those more extensively involved.

The administration of 15 grams of autoclaved baker's yeast, or the addition of pellagra-curative foods to the haddock-supplemented diet, was followed by the disappearance of these symptoms.

While symptoms of the type described above have been long observed in association with the more typical symptoms of pellagra, it appears from a review of the literature that they have been previously encountered but twice, to a dominant degree, and in both instances under very restricted and rigid dietetic conditions.

Stannus (10) describes 131 cases of what he decided was pellagra as occurring among the inmates of Central Prison, Zombo, Nyasaland. Their food consisted principally of "rice, salt, and a certain amount of fish and beans." In describing the clinical aspects of the condition he observed, the author lays stress on the "almost constant occurrence of the rhagadeslike soreness at the mucocutaneous borders at the corners of the mouth," and a similar condition affecting the free margin of the prepuce, "the skin in these situations being thrown into sodden folds of a grayish color." The dorsum of the tongue, at first covered by "heaped-up sodden epithelium," later became denuded. In some of the older and more severe cases a similar change was seen at the external canthus of the palpebral fissure and at the nostrils. A disturbance of gait is also mentioned. According to this observer, these signs appear early in the disease and may persist for many months before the characteristic dermatitis makes its appearance, which he states is often delayed a season. In summing up the results of his observations, this author states as follows:

> The disease which I have attempted to describe above, presenting the picture of a toxæmia attacking the nervous system, rendering the skin more liable to irritation by the sun's rays, with the production of a symmetrical characteristic rash of particular distribution recurring in successive years, is, I believe, undoubtedly pellagra.

It will be noted, however, that the opinion expressed by Stannus that the skin is rendered more liable to irritation by the sun's rays is not very impressively borne out by the results here considered. The haddock diet was begun on October 28, and the symptoms described became well established during the cooler months. Although continued under observation throughout the following spring, summer, and early fall, only one of this group developed the characteristic dermatitis. This was first observed on April 6, or about six weeks following the appearance of fissuring and excoriation at the angles of

the mouth, which were the only changes observed prior to the appearance of the eruption.

Symptoms in most respects strikingly similar to those described by Stannus, and practically identical with those associated with the haddock-supplemented diet, were observed by Goldberger and Tanner (5) in their study of the pellagra-preventive effect of casein. Inasmuch as most of the symptoms described by them, including the disturbance in gait, had been previously observed in cases of pellagra, these authors were inclined to believe that their casein-supplemented diet carried sufficient of the pellagra preventive to control, in a large measure, the dermatitis, but not enough to prevent the other unfavorable symptoms which they regarded as "either suggestive of or definitely *pellagra sine pellagra*." However, the "accumulation of a pasty, caseous material on a linear reddening of the skin" in the groove at the angles of the nose and in the transverse fold below the nasal septum, the conjunctivitis and deposits about the canthi and lid margins, though touched upon by Stannus, appear not to have been previously observed by these authors in either spontaneous cases of pellagra or cases experimentally induced. All the symptoms observed in their cases appear to have responded promptly and satisfactorily to a supplement of plain dried yeast.

The fact that these unfavorable symptoms are promptly overcome and apparently prevented through the administration of yeast or other pellagra-curative food supplements suggests very strongly that they are of dietary origin; and since autoclaved yeast appears to be as efficacious as unheated yeast, the factor concerned may be regarded as resistant to the heat of the autoclave. On this basis several possible explanations were presented.

It was reasoned, as suggested by Goldberger and Tanner, that the amount of the pellagra preventive in the haddock and casein diets, as well as in the diet prevailing in the Nyasaland prison, may have been high enough to noticeably delay, modify, or altogether to prevent the appearance of the more acute and distinctive dermal symptoms yet low enough to permit of the evolution of these more chronic larval manifestations of the disease.

On the other hand, it seemed conceivable that some form of intoxication, arising directly or indirectly from the casein and haddock supplements and capable of being prevented or neutralized by various dietary supplements, including the heat-stable component of dried yeast, might possibly be concerned.

There was also presented the possibility, as had been previously suggested by Goldberger and Wheeler (11), that there may be two separate dietary factors concerned in pellagra, one having to do with the evolution of the dermal manifestations, the other with symptoms

representing the type here encountered, or so-called *pellagra sine pellagra*. This would imply, of course, that the haddock and casein-supplemented diets were much less deficient in the former factor than in the latter.

It seemed reasonable to assume that, if these are larval manifestations of pellagra brought about simply because the degree of protection for the group as a whole falls a little short of adequacy, they should be reduced or prevented by a substantial increase in the proportion of haddock, and, conversely, a substantial decrease in the proportion of this substance should permit of the development, to a dominant degree, of the more familiar array of pellagrous manifestations. Likewise, should a toxin of some sort be primarily concerned, a larger quantity of haddock might be expected to produce these symptoms in a more aggravated form while a reduced quantity should have the opposite effect. It also seemed that should two separate dietary factors be involved, a significant increase in the proportion of haddock would have a favorable influence on these symptoms, while a reduced amount would not; that is, provided canned haddock is not wholly deficient in the factor concerned in these symptoms, in which case they should show little variation regardless of the quantity used.

The following experiments designed to test these possibilities were therefore carried out:

Sixteen colored female inmates were placed on a diet in which the allowance of haddock was increased by 50 per cent, and 12 white female inmates on one in which the haddock was reduced by 50 per cent. In order to compensate for the energy value of the different levels of haddock used in these tests, the cottonseed oil was dropped in the former, the lard reduced by 8 grams and the flour by 7 grams in both, and 28 grams of cane sirup were added to the latter. Aside from these changes, the basic diet was the same as in the original haddock study.

The approximate composition of these diets is given in Tables 3 and 4.

Of the group of 16 receiving an increased quantity of haddock, 14 were continued under observation for a period of one year. Aside from the appearance of a slight and transient scaly deposit about the nasio-labial folds in one of the group, no symptoms, typical or atypical, suggestive of pellagra were observed.

Of the group of 12 receiving the reduced amount, 11 were continued under observation for a period of nine months. Of this number, four showed typical symptoms of pellagra, one of these showing in addition a sebaceous deposit about the nasio-labial folds and at the base of the nasal septum, and excoriation about the angles

of the mouth. This test was terminated upon the development of the fourth case of pellagra.

The information supplied by these additional experiments can not be considered conclusive as regards any one of the points at issue. The practical absence of unfavorable symptoms of any kind under the use of an increased quantity of haddock strongly suggests that a toxic condition due to the haddock *per se* is not involved. However, their greatly reduced incidence under the use of a reduced amount of this substance, though perhaps less significant, is not entirely out of harmony with such a view.

Though it may have more in its favor, the same may be said of the possibility that two separate and distinct dietary factors are involved in pellagra. The practical prevention of pellagrous symptoms of all kinds by the use of a larger quantity of haddock is not inconsistent with this view. However, the fact that these less typical symptoms were strikingly reduced, while the frank manifestations were sharply increased, under the smaller allowance of haddock can not be reconciled with such a hypothesis.

Whether this array of symptoms may be the result of a submarginal or borderline supply of the pellagra-preventive factor likewise remains obscure. However, this view seems to have more in its favor in that the results of all three of the haddock tests are not inconsistent with such a possibility.

Whether the relative infrequency of these symptoms in the ordinary run of pellagra cases is more apparent than real is an open question. Except in extreme cases these less familiar symptoms are also less conspicuous and may often be overlooked or their significance unappreciated, especially in those instances in which the more classical clinical symptoms are outstanding.

However this may be, since both types of lesions seem to be peculiar to the pellagrous state, apparently arising from a common dietary fault and responding alike to the same dietary supplements, they may, for practical purposes at least, be regarded as belonging to the same clinical syndrome. Viewed from this angle, their more specific relationship becomes largely an academic question.

This, as well as other complex and perplexing questions, will doubtless be more clearly answered when the many and profound mysteries of nutrition are more fully revealed. However this may eventually turn out, the immediate objective of this work—the determination of the relative pellagra preventive potency of canned haddock—has been fully attained. These tests have shown in a most convincing manner that when a large proportion of haddock is added to an otherwise pellagra-producing diet practically all clinical manifestations of the disease are prevented, and that when smaller amounts are used

pellagra appears, the number of cases being in inverse proportion to the quantity of haddock supplied.

CANNED GREEN PEAS

In continuation of the study of the relative pellagra-preventive value of fresh vegetables (1), particularly those which may be easily grown in the South and made available early in the spring when the dietary of the pellagrous sections is most restricted, it seemed desirable to make such a test of the green pea (*Pisum sativum*). This foodstuff is known in many sections as the garden or English pea in contradistinction to the field pea, or cowpea, and, unlike these, is not ordinarily used in the mature dry form. Since the fresh green peas are not available for the length of time required for the human test, the canned product was used. The approximate composition of the green pea supplemented diet is shown in Table 5.

A group of 14 white female inmates was used in this test. Of these, 10 continued under observation on the canned green pea supplemented diet for a period of 1 year, 2 for 10⅔ months, 1 for 8 months, and 1 for 6½ months. No evidence of pellagra was observed.

In view of the fact that without the green peas pellagra would have developed within from three to six months, freedom from the disease must be credited to the protective value of this supplement.

SUMMARY AND CONCLUSIONS

1. Dried baker's yeast (autoclaved), canned flaked haddock, and canned green garden or English peas have been tested for their pellagra-preventive potency.

2. Dried baker's yeast is a good source of the pellagra-preventive factor, and its potency is retained after heating in the steam autoclave at 15 pounds pressure for 7½ hours.

3. Canned flaked haddock contains the pellagra-preventive factor but in an amount so small that a relatively large proportion is required adequately to supplement an otherwise pellagra-producing diet. Some less commonly observed symptoms associated with the use of an intermediate allowance of haddock are described and their significance is briefly discussed.

4. Canned green peas supply the pellagra-preventive factor and may be found a highly practical and convenient source of this essential in the pellagrous sections during the spring months when pellagra-preventive supplements are scarcest.

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DIET TABLES

TABLE 1.—*Basic diet plus 60 grams of autoclaved yeast* [1]

[Total calories, 2,027]

Article of diet	Quantity	Nutrients		
		Protein	Fat	Carbohydrate
Basic:	*Grams*	*Grams*	*Grams*	*Grams*
Corn meal	270	22.7	12.7	199.8
Cowpeas (Vigna sinensis)	42	10.0	.6	25.5
Flour	21	2.4	.2	15.8
Lard	42		42.0	
Tomato juice (canned)	127			
Cod-liver oil	14		14.0	
Cottonseed oil	10		10.0	
Calcium carbonate	3			
Sirup iodide of iron	2 drops.			
Dilute hydrochloric acid, U. S. P	90 drops.			
Supplemental: Yeast (autoclaved)	60	17.9	1.1	31.3
Total nutrients		53.0	80.6	272.4

[1] The corn meal, cowpeas, and a portion of the lard were cooked in a mixture, to which the autoclaved yeast and calcium carbonate were added. The flour and the remainder of the lard were used as a brown gravy.
The cod-liver oil, cottonseed oil, sirup iodide of iron, and hydrochloric acid were given mixed with the tomato juice.
The yeast used was dried baker's yeast which had been autoclaved at 15 pounds pressure for 7½ hours.

TABLE 2.—*Basic diet plus 227 grams canned flaked haddock* [1]

(Total calories, 2,079)

Article of diet	Quantity	Nutrients		
		Protein	Fat	Carbohydrate
Basic:	*Grams*	*Grams*	*Grams*	*Grams*
Corn meal	270	22.7	12.7	199.8
Cowpeas (Vigna sinensis)	42	10.0	.6	25.5
Flour	28	3.0	.3	21.0
Lard	50		50.0	
Tomato juice (canned)	127			
Cod-liver oil	14		14.0	
Cottonseed oil	6		6.0	
Calcium carbonate	3			
Sirup iodide of iron	2 drops.			
Dilute hydrochloric acid, U. S. P	90 drops.			
Supplemental: Haddock (canned)	227	48.6	.5	
Total nutrients		84.3	84.1	246.3

[1] The corn meal, cowpeas, and a portion of the lard were cooked in a mixture, to which the calcium carbonate and canned haddock were added. The flour and the remainder of the lard were used as a brown gravy.

The cod-liver oil, cottonseed oil, sirup iodide of iron, and hydrochloric acid were given, mixed with the tomato juice.

TABLE 3.—*Basic diet plus 340 grams canned flaked haddock* [1]

(Total calories, 2,028)

Article of diet	Quantity	Nutrients		
		Protein	Fat	Carbohydrate
Basic:	*Grams*	*Grams*	*Grams*	*Grams*
Corn meal	270	22.7	12.7	199.8
Cowpeas (Vigna sinensis)	42	10.0	.6	25.5
Flour	21	2.4	.2	15.8
Lard	42		42.0	
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: Haddock (canned)	340	73.0	.7	
Total nutrients		108.1	70.2	241.1

[1] The corn meal, cowpeas, and a portion of the lard were cooked in a mixture, to which the calcium carbonate and canned haddock were added. The flour and the remainder of the lard were used as a brown gravy.

The cod-liver oil, sirup iodide of iron, and hydrochloric acid were given, mixed with the tomato juice.

TABLE 4.—*Basic diet plus 113 grams canned flaked haddock* [1]

(Total calories, 2,023)

Article of diet	Quantity	Nutrients		
		Protein	Fat	Carbohydrate
Basic:	*Grams*	*Grams*	*Grams*	*Grams*
Corn meal	269	22.7	12.7	199.8
Cowpeas (Vigna sinensis)	42	10.0	.6	25.5
Flour	21	2.4	.2	15.8
Lard	42		42.0	
Tomato juice (canned)	127			
Cane sirup	28			20.0
Cottonseed oil	14		14.0	
Cod-liver oil	14		14.0	
Calcium carbonate	3			
Sirup iodide of iron	2 drops.			
Dilute hydrochloric acid, U. S. P	90 drops.			
Supplemental: Haddock (canned)	113	24.1	.2	
Total nutrients		59.2	83.7	261.1

[1] The corn meal, cowpeas, and a portion of the lard were cooked in a mixture, to which the calcium carbonate and canned haddock were added. The flour and the remainder of the lard were used as a brown gravy.

The cod-liver oil, cottonseed oil, cane sirup, sirup iodide of iron, and hydrochloric acid were given mixed with the tomato juice.

TABLE 5.—*Basic diet plus canned green peas* [1]

(Total calories, 2,034)

Article of diet	Quantity	Nutrients		
		Protein	Fat	Carbohydrate
Basic:	*Grams*	*Grams*	*Grams*	*Grams*
Corn meal	270	22.7	12.7	199.8
Cowpeas (Vigna sinensis)	42	10.0	.6	25.5
Lard	42		42.0	
Flour	21	2.4	.2	15.8
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: Green peas (canned, including can liquor)	450	18.4	.4	56.7
Total nutrients		53.5	69.9	297.8

[1] The corn meal, cowpeas, and a portion of the lard were cooked in a mixture, to which the calcium carbonate was added.

The cod-liver oil, sirup iodide of iron, and hydrochloric acid were given mixed with the tomato juice.

DEATHS DURING WEEK ENDED DECEMBER 31, 1932

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

	Week ended Dec. 31, 1932	Corresponding week, 1931
Data from 85 large cities of the United States:		
Total deaths	10,273	8,336
Deaths per 1,000 population, annual basis	14.7	12.1
Deaths under 1 year of age	710	606
Deaths under 1 year of age per 1,000 estimated live births [1]	58	48
Deaths per 1,000 population, annual basis, first 52 weeks of year	11.2	11.7
Data from industrial-insurance companies:		
Policies in force	69,085,125	74,151,074
Number of death claims	15,146	13,832
Death claims per 1,000 policies in force, annual rate	11.5	9.7
Death claims per 1,000 policies, first 52 weeks of year, annual rate	9.6	9.6

[1] 1932, 81 cities, 1931, 77 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 January 7, 1933, and January 9, 1932

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended January 7, 1933, and January 9, 1932

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Jan. 7, 1933	Week ended Jan. 9, 1932	Week ended Jan. 7, 1933	Week ended Jan. 9, 1932	Week ended Jan. 7, 1933	Week ended Jan. 9, 1932	Week ended Jan. 7, 1933	Week ended Jan. 9, 1932
New England States:								
Maine	3	6	578	8	1	548	0	3
New Hampshire	1	5			2	27	0	0
Vermont	2					193	0	0
Massachusetts	33	69	173	4	141	429	1	0
Rhode Island	5	12	74	4		866	0	1
Connecticut	14	9	89	9	84	104	2	1
Middle Atlantic States:								
New York	65	104	[1] 794	[1] 26	854	773	5	15
New Jersey	26	51	419	25	260	78	2	1
Pennsylvania	79	145			374	1,425	4	3
East North Central States:								
Ohio	61	94	531	14	332	121	3	1
Indiana	79	68	1,652	9	15	119	6	11
Illinois	64	179	186	33	81	53	22	15
Michigan	17	22	147	6	239	165	0	2
Wisconsin	9	23	6,431	27	193	48	5	1
West North Central States:								
Minnesota	5	30	35	1	230	69	2	3
Iowa	18	33	1,717		3	2	8	2
Missouri	37	57	200	3	32	10	3	4
North Dakota	1	30	1,888		64	32	1	2
South Dakota	6	5	205		7	21	0	1
Nebraska	10	18	268	11	3	19	0	0
Kansas	12	41	7,923	5	33	50	1	0
South Atlantic States:								
Delaware	6	4	2	3	1		0	0
Maryland [2]	13	45	2,064	26	9	4	2	2
District of Columbia	6	21	21	3	2	2	2	2
Virginia [3]	31				139		2	
West Virginia	23	48	4,018	36	157	301	1	1
North Carolina	23	67	1,827	22	314	125	2	0
South Carolina	13	12	3,667	429	63	43	0	0
Georgia	15	12	1,490	88		1	1	2
Florida [3]	8	15	102	1	1		0	0
East South Central States:								
Kentucky	29	54	4,428			32	6	1
Tennessee	11	43	2,614	41	5	10	1	3
Alabama [3]	23	20	2,475	58		9	2	0
Mississippi	7	22					0	0

See footnotes at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended January 7, 1933, and January 9, 1932—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Jan. 7, 1933	Week ended Jan. 9, 1932	Week ended Jan. 7, 1933	Week ended Jan. 9, 1932	Week ended Jan. 7, 1933	Week ended Jan. 9, 1932	Week ended Jan. 7, 1933	Week ended Jan. 9, 1932
West South Central States:								
Arkansas	7	22	11, 138	26	4	3	0	0
Louisiana	16	32	653	25	8	14	3	0
Oklahoma [4]	18	55	1, 960	60	----	6	1	0
Texas [3]	285	164	4, 452	62	20	13	1	0
Mountain States:								
Montana	2	----	5, 493	14	175	221	0	1
Idaho	5	----	5	2	12	----	0	0
Wyoming	----	1	15	3	14	1	0	0
Colorado	4	15	138	----	6	8	0	2
New Mexico	3	21	7	5	2	4	0	1
Arizona	3	4	26	1	----	4	0	0
Utah [2]	1	----	12	----	1	----	0	0
Pacific States:								
Washington	4	4	11	----	1	372	1	1
Oregon	1	3	1, 274	45	24	35	1	0
California	51	82	1, 039	123	98	207	7	6
Total	1, 155	1, 767	72, 241	1, 258	4, 004	6, 567	98	88

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Jan. 7, 1933	Week ended Jan. 9, 1932	Week ended Jan. 7, 1933	Week ended Jan. 9, 1932	Week ended Jan. 7, 1933	Week ended Jan. 9, 1932	Week ended Jan. 7, 1933	Week ended Jan. 9, 1932
New England States:								
Maine	2	3	29	40	0	0	0	1
New Hampshire	0	0	21	14	0	0	0	0
Vermont	0	0	28	4	0	3	1	0
Massachusetts	1	1	347	440	0	0	2	11
Rhode Island	0	0	37	35	0	0	0	0
Connecticut	0	2	91	79	0	15	0	0
Middle Atlantic States:								
New York	1	9	637	653	0	7	10	20
New Jersey	1	1	245	228	0	0	1	7
Pennsylvania	2	1	692	580	0	0	20	22
East North Central States:								
Ohio	1	0	569	338	9	29	7	10
Indiana	0	0	164	153	3	4	2	7
Illinois	2	5	414	429	3	34	0	10
Michigan	0	5	152	194	1	20	1	9
Wisconsin	1	0	62	95	1	8	4	0
West North Central States:								
Minnesota	1	3	76	99	3	14	0	1
Iowa	0	1	25	43	39	78	0	1
Missouri	0	0	108	75	4	26	3	4
North Dakota	0	1	23	14	0	79	0	1
South Dakota	0	0	6	6	2	8	173	2
Nebraska	1	0	46	24	1	12	0	1
Kansas	1	0	71	49	2	2	0	6
South Atlantic States:								
Delaware	0	0	10	13	0	0	0	0
Maryland [2]	0	0	81	100	0	0	7	8
District of Columbia	0	1	14	23	0	0	0	1
Virginia [3]	0	----	65	----	0	----	11	----
West Virginia	0	0	56	48	1	0	0	13
North Carolina	0	1	46	84	0	0	4	6
South Carolina	2	0	9	16	2	2	2	12
Georgia	1	0	5	24	0	0	5	13
Florida [3]	0	0	3	4	0	0	5	5
East South Central States:								
Kentucky	0	3	40	97	1	0	2	12
Tennessee	1	1	40	71	0	10	10	17
Alabama [3]	0	2	27	46	2	3	1	9
Mississippi	0	0	19	18	0	11	2	5

See footnotes at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended January 7, 1933, and January 9, 1932—Continued

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Jan. 7, 1933	Week ended Jan. 9, 1932	Week ended Jan. 7, 1933	Week ended Jan. 9, 1932	Week ended Jan. 7, 1933	Week ended Jan. 9, 1932	Week ended Jan. 7, 1933	Week ended Jan. 9, 1932
West South Central States:								
Arkansas	0	0	26	19	2	8	0	9
Louisiana	0	0	12	14	2	7	6	17
Oklahoma [4]	0	2	17	51	0	4	1	9
Texas [3]	0	1	70	111	5	19	9	14
Mountain States:								
Montana	0	0	13	51	5	5	1	0
Idaho	0	0	2	4	7	2	1	0
Wyoming	0	0	5	6	0	0	0	1
Colorado	0	1	60	58	0	4	2	0
New Mexico	0	1	19	18	0	0	1	1
Arizona	0	0	5	7	0	2	1	1
Utah [2]	0	0	22	10	0	3	0	0
Pacific States:								
Washington	1	0	20	56	13	31	1	3
Oregon	0	0	29	19	2	17	3	3
California	3	3	159	141	9	16	11	4
Total	22	48	4,717	4,701	119	483	310	276

[1] New York City only.
[2] Week ended Friday.
[3] Typhus fever, week ended Jan. 7, 1933, 7 cases: 1 case in Virginia, 1 case in Florida, 4 cases in Alabama, and 1 case in Texas.
[4] Figures for 1933 are exclusive of Oklahoma City and Tulsa.

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
November, 1932										
Colorado	-------	38	898	-------	23	-------	2	183	4	11
Mississippi	-------	137	12,759	1,948	84	245	7	130	3	21
Texas	-------	796	322	710	-------	2	1	399	-------	35
Virginia	3	231	[1] 153	23	292	6	7	367	1	56
December, 1932										
Connecticut	1	44	112	-------	83	-------	1	365	19	4
Maine	-------	13	329	-------	6	-------	2	129	0	25
Massachusetts	6	156	78	1	519	-------	3	1,527	0	17
Michigan	7	133	382	5	1,339	-------	2	1,530	6	37
Nebraska	4	117	1,342	-------	29	-------	2	211	-------	1

[1] Incomplete.

November, 1932

	Cases
Chicken pox:	
Colorado	474
Mississippi	552
Virginia	199
Dengue:	
Mississippi	4
Dysentery:	
Mississippi (amebic)	24
Dysentery and diarrhea:	
Virginia	65
Hookworm disease:	
Mississippi	162
Impetigo contagiosa:	
Colorado	1
Jaundice, infectious:	
Virginia	1
Mumps:	
Colorado	104
Mississippi	90
Ophthalmia neonatorum:	
Virginia	1
Paratyphoid fever:	
Colorado	1
Texas	1
Virginia	1
Puerperal septicemia:	
Mississippi	22
Rabies in animals:	
Mississippi	10
Septic sore throat:	
Virginia	4
Tetanus:	
Virginia	1
Trachoma:	
Mississippi	3
Virginia	1
Tularæmia:	
Colorado	1
Virginia	11
Undulant fever:	
Virginia	3
Vincent's angina:	
Colorado	4
Whooping cough:	
Colorado	24
Mississippi	362
Virginia	153

December, 1932

	Cases
Chicken pox:	
Connecticut	528
Maine	376
Massachusetts	1,700
Michigan	2,315
Nebraska	337
Conjunctivitis, infectious:	
Connecticut	7
Dysentery:	
Connecticut (amebic)	1
Massachusetts	3
Michigan	1
German measles:	
Connecticut	6
Maine	10
Massachusetts	28
Lead poisoning:	
Connecticut	4
Massachusetts	6
Lethargic encephalitis:	
Maine	2
Massachusetts	2
Michigan	4
Mumps:	
Connecticut	230
Maine	33
Massachusetts	528
Michigan	727
Nebraska	52
Ophthalmia neonatorum:	
Connecticut	2
Massachusetts	80
Paratyphoid fever:	
Connecticut	4
Rabies in animals:	
Connecticut	2
Septic sore throat:	
Connecticut	2
Maine	1
Massachusetts	22
Michigan	41
Nebraska	269
Tetanus:	
Massachusetts	1
Trichinosis:	
Connecticut	5
Tularæmia:	
Michigan	10
Undulant fever:	
Connecticut	2
Maine	1
Massachusetts	1
Michigan	3
Vincent's angina:	
Maine	7
Whooping cough:	
Connecticut	361
Maine	51
Massachusetts	669
Michigan	906
Nebraska	55

WEEKLY REPORTS FROM CITIES

City reports for week ended December 31, 1932

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								
Maine:											
Portland	0	1	0	0	1	4	0	0	0	7	18
New Hampshire:											
Concord	0	------	0	0	0	0	0	0	0	0	12
Nashua	0	------	0	0	0	3	0	0	0	0	-------
Vermont:											
Barre	0	------	0	0	0	0	0	0	0	0	2
Burlington	0	------	0	0	0	0	0	0	0	0	18
Massachusetts:											
Boston	10	26	3	34	35	97	0	12	2	53	240
Fall River	0	2	0	0	1	8	0	0	0	3	30
Springfield	1	------	0	0	1	9	0	2	0	4	31
Worcester	2	------	0	0	5	22	0	2	0	8	54
Rhode Island:											
Pawtucket	0	------	0	0	0	0	0	0	0	0	16
Providence	1	10	2	0	1	14	0	2	0	11	69
Connecticut:											
Bridgeport	1	16	0	15	6	10	0	0	0	0	34
Hartford	0	12	0	9	4	10	0	0	0	2	47
New Haven	1	6	1	0	4	3	0	1	0	5	42
New York:											
Buffalo	6	------	6	3	38	39	0	5	0	44	164
New York	48	649	51	287	351	163	0	79	4	96	1,809
Rochester	0	422	2	2	17	29	0	2	0	2	93
Syracuse	0	------	0	1	12	21	0	1	0	1	70

City reports for week ended December 31, 1932—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								
New Jersey:											
Camden	0	4	3	1	7	8	0	1	0	0	43
Newark	2	122	1	62	5	18	0	5	0	11	64
Trenton	0	1	0	4	9	13	0	0	0	2	36
Pennsylvania:											
Philadelphia	7	31	11	27	38	137	0	22	1	3	546
Pittsburgh	8	33	14	4	31	45	0	7	0	0	175
Reading	1	------	0	17	3	1	0	1	0	2	21
Ohio:											
Cincinnati	1	3	14	0	33	16	0	9	1	3	194
Cleveland	7	378	12	2	31	67	0	16	0	9	261
Columbus	4	14	10	166	13	12	0	5	1	0	113
Toledo	1	13	9	17	11	35	0	10	0	1	106
Indiana:											
Fort Wayne	4	------	1	0	4	1	0	2	0	0	39
Indianapolis	4	------	2	8	20	6	0	2	0	0	------
South Bend	0	------	0	0	1	3	0	0	0	0	23
Terre Haute	1	------	1	1	8	2	0	0	0	0	35
Illinois:											
Chicago	14	38	21	34	91	175	0	37	0	16	803
Springfield	0	8	2	0	8	4	0	1	1	0	39
Michigan:											
Detroit	6	63	14	46	40	88	0	13	1	51	386
Flint	0	117	2	5	8	3	0	1	1	2	40
Grand Rapids	0	------	7	0	3	10	0	0	0	25	52
Wisconsin:											
Kenosha	0	1	0	0	0	3	1	0	0	6	4
Madison	1	27	------	3	------	0	0	------	0	0	------
Milwaukee	2	15	16	1	18	11	0	4	0	14	138
Racine	0	------	0	2	0	4	0	1	0	4	12
Superior	0	------	1	1	0	0	0	0	0	0	7
Minnesota:											
Duluth	0	------	1	0	4	2	0	1	0	2	28
Minneapolis	2	------	17	34	22	25	0	0	0	1	149
St. Paul	0	9	9	0	10	12	0	4	0	9	85
Iowa:											
Des Moines	5	------	------	0	------	6	0	------	0	0	60
Sioux City	0	------	------	0	------	0	0	------	0	1	------
Waterloo	------	------	------	------	------	------	------	------	------	------	------
Missouri:											
Kansas City	1	3	3	20	31	26	0	12	0	3	153
St. Joseph	1	------	0	1	11	0	0	3	0	0	48
St. Louis	14	18	9	0	29	24	0	18	1	1	330
North Dakota:											
Fargo	0	------	0	3	1	0	0	0	0	0	5
Grand Forks	0	------	0	8	0	0	0	0	0	0	------
South Dakota:											
Aberdeen	0	------	0	0	0	0	0	0	0	0	------
Sioux Falls	0	------	0	2	0	0	0	0	0	0	10
Nebraska:											
Omaha	7	------	0	1	16	7	1	1	0	0	66
Kansas:											
Topeka	1	3	0	10	10	1	0	0	0	0	40
Wichita	1	200	3	1	16	4	0	1	0	0	59
Delaware:											
Wilmington	2	------	0	2	5	1	0	2	0	1	33
Maryland:											
Baltimore	3	648	7	3	38	58	0	11	2	13	255
Cumberland	0	2	1	0	2	0	0	0	0	0	19
Frederick	0	5	0	0	0	0	0	0	0	0	5
District of Columbia:											
Washington	4	74	6	4	41	9	0	16	0	4	192
Virginia:											
Lynchburg	2	------	2	0	1	0	0	0	0	1	15
Norfolk	1	27	0	0	4	0	0	0	0	0	27
Richmond	0	54	10	1	7	6	0	4	0	0	69
Roanoke	1	------	1	3	6	8	0	2	0	0	22
West Virginia:											
Charleston	0	3	1	0	3	2	0	0	0	0	14
Huntington	1	------	------	12	------	1	1	------	0	0	------
Wheeling	0	------	0	114	1	3	0	1	0	7	20
North Carolina:											
Raleigh	0	------	0	1	4	0	0	1	0	0	25
Wilmington	0	------	0	0	2	1	0	0	0	0	17
Winston-Salem	0	13	0	1	5	2	0	0	0	0	19

City reports for week ended December 31, 1932—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	160	3	0	1	1	0	3	0	1	32
Columbia	0	------	0	0	6	0	0	1	0	0	33
Georgia:											
Atlanta	1	344	17	2	14	3	0	1	0	2	95
Brunswick	0	------	0	0	0	0	0	0	0	0	2
Savannah	2	84	3	0	6	0	0	2	0	1	38
Florida:											
Miami	0	15	0	0	0	0	0	0	0	0	22
Tampa	3	3	3	0	2	1	0	2	0	0	28
Kentucky:											
Lexington	0	41	5	0	7	2	0	0	0	0	31
Louisville	3	24	6	0	12	9	0	1	0	0	104
Tennessee:											
Memphis	0	------	11	0	12	5	0	9	4	2	115
Nashville	0	------	15	1	13	3	0	3	0	0	79
Alabama:											
Birmingham	4	126	10	0	6	4	0	6	0	0	80
Mobile	1	4	3	0	3	0	0	2	0	0	27
Montgomery	1	3	--------	0	-------	0	0	-------	0	0	--------
Arkansas:											
Fort Smith	0	1,000	--------	0	-------	0	0	-------	0	0	--------
Little Rock	3	76	0	0	11	0	0	0	0	0	12
Louisiana:											
New Orleans	0	61	18	0	9	5	0	5	0	0	152
Shreveport	0	3	2	1	8	1	1	2	0	0	43
Oklahoma:											
Muskogee	0	42	--------	0	-------	0	1	-------	0	0	--------
Tulsa	0	------	0	1	0	0	1	0	0	0	--------
Texas:											
Dallas	6	124	21	2	14	5	0	5	1	1	78
Fort Worth	5	------	13	0	11	12	0	0	0	0	--------
Galveston	4	------	0	1	3	2	0	0	0	0	12
Houston	6	------	3	1	18	4	0	3	0	0	62
San Antonio	9	1	17	0	9	0	0	8	0	0	84
Montana:											
Billings	0	------	0	0	0	0	0	0	0	0	8
Great Falls	0	------	0	115	1	1	0	0	0	1	4
Helena	0	294	0	0	0	0	0	0	0	0	9
Missoula	0	393	0	0	0	0	0	0	0	0	1
Idaho:											
Boise	0	------	0	3	0	3	6	0	0	0	7
Colorado:											
Denver	2	82	7	4	28	14	0	5	0	1	93
Pueblo	0	------	2	0	1	1	0	0	0	0	8
New Mexico:											
Albuquerque	5	------	0	0	2	3	0	1	0	5	9
Arizona:											
Phoenix	0	------	0	0	1	0	0	4	0	0	--------
Utah:											
Salt Lake City	1	------	3	0	6	5	0	0	0	1	38
Nevada:											
Reno	0	------	0	0	2	0	0	0	0	0	5
Washington:											
Seattle	0	------	--------	0	-------	2	0	-------	0	8	--------
Spokane	0	------	--------	0	-------	0	0	-------	0	0	--------
Tacoma	0	------	1	0	1	4	2	0	0	0	35
Oregon:											
Portland	0	198	4	1	14	5	1	2	0	0	92
Salem	0	92	--------	1	-------	0	0	-------	0	0	--------
California:											
Los Angeles	15	169	8	57	28	34	6	29	1	31	362
Sacramento	2	32	0	1	11	1	0	4	0	4	39
San Francisco	1	555	18	0	18	3	0	7	1	9	220

City reports for week ended December 31, 1932—Continued

State and city	Meningococcus meningitis		Poliomyelitis, cases
	Cases	Deaths	
New York:			
New York	1	0	3
Pennsylvania:			
Philadelphia	0	0	1
Pittsburgh	1	1	0
Ohio:			
Cleveland	0	1	0
Indiana:			
Indianapolis	2	1	0
Illinois:			
Chicago	18	12	0
Springfield	0	1	0
Michigan:			
Detroit	1	0	0
Minnesota:			
Minneapolis	1	0	1
St. Paul	0	0	1
Missouri:			
St. Joseph	1	1	0
St. Louis	2	1	0
Nebraska:			
Omaha	1	0	0
Kansas:			
Wichita	1	0	0
Maryland:			
Baltimore	1	0	0
District of Columbia:			
Washington	1	0	0
Georgia:			
Atlanta	4	0	0
Kentucky:			
Lexington	2	2	0
Tennessee:			
Memphis	1	0	0
Louisiana:			
New Orleans	2	2	0
New Mexico:			
Albuquerque	1	1	0
Washington:			
Seattle	1	0	1
Tacoma	1	0	0
California:			
Los Angeles	2	3	0
San Francisco	1	0	0

Lethargic encephalitis.—Cases: New York, 1; Cleveland, 1; Toledo, 1; Chicago, 1; Detroit, 1; Minneapolis, 1.
Pellagra.—Cases: Baltimore, 1; Raleigh, 1; Winston-Salem, 2; Atlanta, 2; Savannah, 2; Birmingham, 1; New Orleans, 1.
Typhus fever.—Cases: Savannah, 2.

FOREIGN AND INSULAR

INFLUENZA IN GREAT BRITAIN

During the month of December, 1932, there was an increase in the number of deaths from respiratory diseases in the 16 principal towns of Scotland and especially in the city of Glasgow. The following table shows the death rates for the four weeks ended December 24, 1932, in these towns and in Glasgow. The figures are taken from the Weekly Return of Births, Deaths, and Marriages, issued by the Registrar General of Scotland.

Deaths in principal towns of Scotland

	Week ended—				
	Dec. 3, 1932	Dec. 10, 1932	Dec. 17, 1932	Dec. 24, 1932	Dec. 26, 1931
Deaths, all causes, per 1,000 population:					
16 principal towns	13.3	15.5	16.7	21.1	13.7
Glasgow	14.3	18.0	19.8	28.4	14.6
Number of deaths from influenza:					
16 principal towns	12	12	32	112	6
Glasgow	8	7	28	86	3
Number of deaths from respiratory diseases except tuberculosis:					
16 principal towns	124	150	220	291	161
Glasgow	65	86	143	206	38

The Registrar General of England and Wales reports deaths in 118 great towns for the four weeks ended December 24, 1932, as follows:

Deaths in 118 great towns of England and Wales

	Week ended—				
	Dec. 3, 1932	Dec. 10, 1932	Dec. 17, 1932	Dec. 24, 1932	Dec. 26, 1931 [1]
Deaths, all causes, per 1,000 population:					
118 great towns	11.5	12.1	13.2	13.1	12.8
London	11.1	12.0	13.4	12.2	12.0
Number of deaths from influenza:					
118 great towns	33	68	85	120	----------
London	6	6	12	8	----------

[1] 107 great towns.

CANADA

Provinces—Communicable diseases—Week ended December 24, 1932.—The Department of Pensions and National Health of Canada reports cases of certain communicable diseases for the week ended December 24, 1932, as follows:

Disease	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
Cerebrospinal meningitis						1			1
Chicken pox	17		145	261	63	28		16	530
Diphtheria	1	7	26	23	7	1	1	1	67
Erysipelas			2	1				2	5
Influenza	15		150	112				910	1,187
Measles	11	30	24	531	2			1	599
Mumps				183	16	1		2	202
Pneumonia, all forms	1			7		6		2	16
Poliomyelitis			1						1
Scarlet fever	6	17	62	74	21	26	1	5	212
Smallpox						1			1
Trachoma								1	1
Tuberculosis	1	1	75	67	3	1	1	16	165
Typhoid fever		1	21	5	1	8			36
Undulant fever				1					1
Whooping cough			57	72	32	8		5	174

Quebec Province—Communicable diseases—Four weeks ended December 31, 1932.—The Bureau of Health of the Province of Quebec, Canada, reports cases of certain communicable diseases for the four weeks ended December 31, 1932, as follows:

Disease	Week ended—			
	Dec. 10	Dec. 17	Dec. 24	Dec. 31
Cerebrospinal meningitis		1		1
Chicken pox	111	115	145	82
Diphtheria	33	25	26	19
Erysipelas	3	4	2	1
German measles	4	4	4	1
Influenza		2	150	93
Measles	57	55	20	22
Ophthalmia neonatorum	1	1		
Poliomyelitis		1	1	
Puerperal fever	1	1		1
Scarlet fever	84	61	62	56
Tuberculosis	88	38	75	58
Typhoid fever	18	8	21	
Whooping cough	77	114	57	41

CUBA

Habana—Communicable diseases—Four weeks ended December 31, 1932.—During the four weeks ended December 31, 1932, certain communicable diseases were reported in Habana, Cuba, as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Chicken pox	2		Scarlet fever	2	
Diphtheria	13	5	Tuberculosis	5	
Malaria	21	5	Typhoid fever	8	2

PANAMA CANAL ZONE

Communicable diseases—November, 1932.—During the month of November, 1932, certain communicable diseases, including imported cases, were reported in the Panama Canal Zone and terminal cities as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Chicken pox	10		Meningococcus meningitis	1	
Diphtheria	10	1	Pneumonia		13
Dysentery, amebic	3	2	Tuberculosis		20
Dysentery, bacillary	4		Typhoid fever	1	1
Malaria	123	2	Whooping cough	3	
Measles	40	1			

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

(NOTE.—A table giving current information of the world prevalence of the quarantinable diseases appeared in the Public Health Reports for December 30, 1932, pp. 2382-2394. A similar cumulative table will appear in the Public Health Reports to be issued January 27, 1933, and thereafter, at least for the time being, in the issue published on the last Friday of each month.)

Cholera

Philippine Islands.—During the week ended January 7, 1933, 43 cases of cholera with 23 deaths were reported in Leyte Province, P. I., and 60 cases with 43 deaths were reported in Samar Province.

Smallpox

China—Canton.—During the two weeks ended January 7, 1933, 419 cases of smallpox with 12 deaths were reported at Canton, China.