LEAGUE OF NATIONS
HEALTH SECTION

# EPIDEMIOLOGICAL INTELLIGENCE

## EPIDEMIC DISEASES
## IN EASTERN AND CENTRAL EUROPE

MAY - DECEMBER 1922

N° 6

GENEVA
MARCH 1923

LEAGUE OF NATIONS

HEALTH SECTION

# EPIDEMIOLOGICAL INTELLIGENCE

## EPIDEMIC DISEASES
## IN EASTERN AND CENTRAL EUROPE

MAY - DECEMBER 1922

N° 6

GENEVA
MARCH 1923

CONTENTS.

# NOTES ON THE EPIDEMIOLOGY OF 1922.

---

remembered that the statements here made are based on the number of cases *notified*. While actual parisons between countries are generally impossible, the reports indicate roughly the chronocal movement of the diseases within comparable areas.

Briefly summarised, the comparison between 1921 and 1922, in so far as the reports have been ived, is as follows :

The incidence of *typhus* and *relapsing fever* was fully twice as great in 1922 as in 1921 in *Russia*, ther extremely high epidemic wave having occurred in 1921-1922. This wave was quite double 1920-1921 wave but was less than half as great as the second wave of 1919-1920, judging from number of cases reported. In *Poland* no improvement in 1922 over 1921 was noted for typhus, the prevalence of relapsing fever has greatly increased. In *Lithuania*, typhus increased and relap- fever showed no considerable change. In *Latvia* there was apparently an increase of typhus a decrease of relapsing fever. In other countries decreases are shown, but the total number of cases orted are relatively small.

# NOTE

The tables of cases of disease in this report combine the data in groups of five weeks for March, May, August and November, and of four weeks for the other months, for those countries which publish weekly reports, namely, England and Wales, the Netherlands, Switzerland, Germany, Austria, Italy, Danzig and Poland. The Russian data are received in this form only.

# NOTES ON THE EPIDEMIOLOGY OF 1922.

In Central and Eastern Europe, the outstanding feature of the epidemiological situation in 1922 as compared with the previous year was the extremely high prevalence of typhus and relapsing fever in Russia, an increase of cholera in the Ukraine and a serious increase in the prevalence of malaria in Russia, especially of the tropical type. Russia remained the centre of devastating epidemics which were even more severe in 1922 than in 1921. In Poland the typhus situation, while far less serious than in Russia, showed no marked improvement in 1922, and the incidence of relapsing fever increased. In most of the other countries the reports showed a decrease of these diseases.

It is too early at this date (February 15th, 1923) to make any forecast for 1923. There are many unknown factors, and the statistical reports are so incomplete for recent months that it would not be of much value. For Eastern Europe, at any rate, it would be rash to predict a return to anything like the normal prevalence of the diseases which have appeared in epidemic form with more or less regularity for the past few years.

## SUMMARY.

This report deals in some detail with the situation of the most important epidemic diseases in Eastern and Central Europe, namely : typhus and relapsing fever, asiatic cholera, dysentery, smallpox, plague, epidemic diseases of the central nervous system, malaria and enteric fever. It should be remembered that the statements here made are based on the number of cases *notified*. While actual comparisons between countries are generally impossible, the reports indicate roughly the chronological movement of the diseases within comparable areas.

Briefly summarised, the comparison between 1921 and 1922, in so far as the reports have been received, is as follows :

The incidence of *typhus* and *relapsing fever* was fully twice as great in 1922 as in 1921 in *Russia*, another extremely high epidemic wave having occurred in 1921-1922. This wave was quite double the 1920-1921 wave but was less than half as great as the second wave of 1919-1920, judging from the number of cases reported. In *Poland* no improvement in 1922 over 1921 was noted for typhus, and the prevalence of relapsing fever has greatly increased. In *Lithuania*, typhus increased and relapsing fever showed no considerable change. In *Latvia* there was apparently an increase of typhus but a decrease of relapsing fever. In other countries decreases are shown, but the total number of cases reported are relatively small.

With the exception of the Ukraine and the Russian Black Sea littoral, the *cholera* situation improved considerably in 1922. In *Russia*, exclusive of the Ukraine, the number of cases reported in 1922 was about one-fourth of those reported for 1921 since the great epidemic in South Russia of 1921 had come to an end. In the *Ukraine*, however, a serious epidemic occurred in 1922 ; the number of cases in July (the highest month) of 1922 was four times as large as in July 1921. While small outbreaks were reported in a few localities in other countries, no serious epidemics were noted.

Notifications of *dysentery* probably mean nothing more than certain intestinal infections with similar clinical symptoms, but the prevalence of the disease in 1922 was apparently considerably less than in 1921 in all the countries concerned. Even in Russia, for which the reports are extremely incomplete, there is no evidence of unusual prevalence.

*Smallpox* declined in 1922 in all countries where it was markedly prevalent during the preceding year although its incidence was still high in *Russia*.

No unusual prevalence of *plague* was noted.

The reports for the *epidemic diseases of the central nervous system* did not indicate any unusual prevalence during 1922 in the few countries in which these diseases were reported ; Germany, in regard to cerebro-spinal meningitis, was, however, an exception to this rule.

*Malaria* assumed more alarming proportions in Russia during 1922, and the situation was rendered even more serious by the appearance of the tropical type in *Eastern Russia*. The million and more cases actually reported for Russia represent a small proportion of the cases which must have actually occurred.

The incidence of *enteric fever* was less during 1922 than during the preceding year in nearly all European countries.

---

## 1. TYPHUS AND RELAPSING FEVER.

The information received by the People's Commissariat of Health at Moscow up to January 15th, 1923, regarding the number of typhus and relapsing fever cases in Russia up to and including the month of November, give a clear impression of the course of the past wave.

With the month of September the annual cycle of the two diseases is completed, and in October or November their incidence usually begins to increase. The epidemic of the winter and spring of 1922 was the fourth abnormally high wave of typhus and the third wave of relapsing fever.

The following tables indicate the course of typhus and relapsing fever in Russia for the past four years and in Poland for the past three years. The figures illustrate the consecutive epidemic waves, but it must be remembered that the date for the earlier years are less complete than those for 1921 and 1922 ; various returns are missing, notably for the Ukraine and the Caucasus for 1918 and 1919 and for the eastern provinces of Poland up to April 1921.

Both diseases were about twice as prevalent in the winter of 1921-1922 as during the previous year, and the incidence of both, and particularly of relapsing fever, remained high in 1922 much later

in the season than usual. For instance, in the five governments of Southern Ukraine, 27,928 cases of relapsing fever were notified in June 1922 and 24,751 cases in July, as against 22,302 in February, which is usually the month of maximum incidence.

CASES OF TYPHUS AND RELAPSING FEVER NOTIFIED IN RUSSIA, 1918-1922.

*Typhus*

| Months | 1918 | 1919 | 1920 | 1921 | 1922 |
|---|---|---|---|---|---|
| January | 7,157 | 101,763 | 718,557 | 113,580 | 170,494 |
| February | 7,496 | 196,374 | 839,333 | 116,113 | 207,251 |
| March | 13,623 | 319,322 | 816,991 | 101,343 | 280,688 |
| April | 13,942 | 328,339 | 532,708 | 85,232 | 214,250 |
| May | 12,149 | 302,991 | 380,280 | 62,179 | 226,873 |
| June | 10,472 | 215,851 | 199,497 | 35,615 | 125,885 |
| July | 6,701 | 129,285 | 102,377 | 18,725 | 60,275 |
| August | 4,182 | 62,866 | 55,918 | 13,048 | 31,185 |
| September | 4,182 | 52,099 | 50,339 | 13,494 | 18,515 |
| October | 6,898 | 90,099 | 52,197 | 19,925 | 17,199 |
| November | 12,346 | 152,758 | 75,771 | 44,326 | 15,467 |
| December | 34,650 | 297,548 | 106,614 | 86,005 | 3,839* |
| Period not stated | — | 90,396 | 31,619 | 1,574 | 30,762 |
| Total | 134,057 | 2,339,691 | 3,962,201 | 711,159 | 1,402,683 |

*Relapsing Fever*

| Months | 1918 | 1919 | 1920 | 1921 | 1922 |
|---|---|---|---|---|---|
| January | 1,294 | 9,837 | 262,480 | 181,050 | 184,092 |
| February | 956 | 13,181 | 345,309 | 153,126 | 191,279 |
| March | 1,658 | 19,746 | 339,343 | 120,238 | 222,808 |
| April | 2,398 | 15,063 | 206,834 | 84,010 | 160,439 |
| May | 2,356 | 16,967 | 186,369 | 59,884 | 177,586 |
| June | 1,507 | 17,226 | 148,045 | 53,607 | 138,496 |
| July | 1,275 | 20,949 | 100,373 | 40,692 | 112,203 |
| August | 819 | 20,022 | 90,043 | 32,694 | 87,059 |
| September | 796 | 24,956 | 76,238 | 33,928 | 52,748 |
| October | 907 | 52,920 | 88,082 | 53,299 | 41,346 |
| November | 1,063 | 72,485 | 128,371 | 91,388 | 22,867 |
| December | 2,096 | 118,737 | 182,500 | 115,821 | 4,737* |
| Period not stated | — | 6,200 | 24,124 | 1,000 | 44,113 |
| Total | 17,125 | 408,289 | 2,178,111 | 1,020,737 | 1,439,773 |

* Incomplete data for two weeks only.

CASES OF TYPHUS AND RELAPSING FEVER NOTIFIED IN POLAND, 1919-1922.

| Months | *Typhus* | | | | *Relapsing fever* | | |
|---|---|---|---|---|---|---|---|
| | 1919 | 1920 | 1921 | 1922 | 1920 | 1921 | 1922 |
| January . . . . | 14,207 | 34,530 | 5,183 | 6,462 | 1,773 | 968 | 6,299 |
| February . . . | 17,061 | 25,858 | 6,090 | 7,041 | 311 | 790 | 9,228 |
| March . . . . . | 23,272 | 27,843 | 6,461 | 8,587 | 381 | 917 | 8,404 |
| April . . . . . | 28,190 | 24,616 | 8,624 | 5,332 | 286 | 2,233 | 3,960 |
| May . . . . . | 33,929 | 24,339 | 5,341 | 5,819 | 746 | 846 | 3,566 |
| June . . . . . | 20,445 | 12,329 | 2,712 | 2,849 | 276 | 780 | 2,511 |
| July . . . . . | 22,287 | 5,366 | 2,364 | 1,220 | 305 | 808 | 1,721 |
| August . . . . | 14,735 | 1,388 | 927 | 754 | 107 | 482 | 1,534 |
| September . . . | 11,986 | 1,650 | 860 | 461 | 455 | 680 | 824 |
| October . . . . | 12,980 | 2,195 | 927 | 515 | 620 | 510 | 725 |
| November . . . | 12,382 | 3,013 | 1,746 | 900 | 871 | 1,558 | 858 |
| December . . . | 18,333 | 4,576 | 3,600 | 852 | 948 | 3,577 | 615 |
| Total . . . | 229,807 | 167,703 | 44,835 | 40,792 | 7,079 | 14,149 | 40,045 |

The value of the Russian data has been discussed at length by Prof. Tarassevitch in *Epidemiological Intelligence* Nos. 2 and 5. Russian experts admit that the actual number of cases is considerably higher than the returns indicate, and notably so in the more remote parts of the Federation. Several months generally elapse before the figures become definitely established, because returns from many rural districts arrive late. Siberian data are thus, at the time of writing, only available for the first four months of the year, and no returns have been received, as yet, for August or later months from the governments of Olonetz, Rybinsk, Terek and the republics of Daghestan and Azerbeidjan.

Although frequently incomplete, the data are of decided value, at least for typhus, relapsing fever and cholera, and the effect of various errors can be reduced by proper statistical analysis. In *Epidemiological Intelligence* No. 1 the Red Army statistics were indicated as a useful index for the epidemic situation in Russia, but the publication of sanitary statistics for the army was, unfortunately, discontinued some months ago. Significant and fairly exact results can be obtained, however, by comparing the incidence of typhus with that of relapsing fever. This analysis does not show the actual number of cases, but it does throw light on the relative movement of the two diseases. The ratio thus established is less influenced by incomplete notification, missing returns for rural districts, etc., than are the actual figures, because the sources of error affect the figures for both diseases, if not to the same extent, at least in the same direction.

Typhus and relapsing fever both reach their maximum incidence normally in the winter months, but the curve of seasonal incidence described by typhus is, as a rule, steeper than that of relapsing fever, the latter continuing later in the summer. The ratio of typhus cases to relapsing fever cases was for the whole of Russia 0.42 in September 1921 and rose gradually during seven months to a maximum of 1.34 in April, falling again regularly for the next five months to 0.35 in September 1922 (see Annex 2). It is noteworthy that the abnormally high incidence of these diseases in June 1922 (evidently due to the famine conditions) did not influence the normal ratio of the two diseases. Typhus is relatively highest in the north and relapsing fever in the south, but the ratio of typhus to relapsing fever is everywhere highest in April and May (see diagram No. 1).

The figures in Annex 1 show that typhus reached its greatest intensity in three areas: (1) in a belt stretching in a curve running north-west from the Northern Ural Mountains to Marxstadt on the Volga; (2) in the Central and Southern Ukraine ; (3) in the region round Moscow.

The prevalence of relapsing fever was greatest in the Ukraine and in the Ural Mountains, where from 20 to 35 cases of this disease per 1,000 inhabitants were recorded in most governments. The two diseases have clearly been most prevalent in and near the famine area.

A direct comparison between the years 1921 and 1922 is still more difficult to obtain because in some places the quality of the notification has varied from year to year. It seems certain, however, that both typhus and relapsing fever have decreased considerably in Western Russia with the possible exception of Petrograd. Practically all the remainder of Russia shows a marked increase. Typhus more than tripled both in the Ural region and in the Ukraine, where a marked increase has occurred. Typhus was more than four times higher in Moscow than in 1921. Relapsing fever has increased particularly in the Central Ukraine, and in Eastern and Central Russia; in Moscow it has tripled. Relapsing fever is reported to have been more fatal than during the former epidemics, and various serious complications, notably of intestinal form, have frequently been mentioned (see also *Epidemiological Intelligence* No. 5, pages 26-27).

Returning to the relative incidence of typhus and relapsing fever in 1921 as well as in 1922, relapsing fever was far more prevalent than typhus in the south, while typhus was commoner in the north. There is frequent confusion in the diagnosis of the two diseases, but this can hardly account for the fact that south of latitude 50° N., roughly speaking, twice as many cases of relapsing fever as of typhus are notified, while north of latitude 56° N. the proportion is inversed. The concentration of relapsing fever in the southern belt was most pronounced in the central part of the Kirghiz Republic, where its ratio to typhus exceeded 3 to 1; further to the east, in Semipalatinsk, Siberia and Turkestan it decreased again. From Bukeev west to Ekaterinoslav the ratio exceeded 2 to 1, and in the whole of the Ukraine, with the exception of Odessa, and in the central Black Soil district, relapsing fever exceeded typhus. From the six eastern provinces of Poland, more relapsing fever cases than typhus cases were returned, while in the remainder of Poland and in the other border States, relapsing fever was rare.

When comparing the ratios for the two years in question, it is seen that the geographical distribution of the two diseases tends to become more identical ; relapsing fever has increased more rapidly in the north than typhus, while the reverse is the case in the south. It is evident that both diseases have gained new territory in 1922, typhus spreading southwards and relapsing fever northwards.

The prevalence of typhus and relapsing fever in the countries west of Russia is indicated in the following table, where the present year's incidence is compared with that of 1921.

Cases of Typhus and Relapsing Fever notified in 1921 and 1922.

| | | *Typhus* | | *Relapsing fever* | |
|---|---|---|---|---|---|
| Country | Months | 1921 | 1922 | 1921 | 1922 |
| Finland . . . . . | I-XII | 32 | 1 | 2 | 1 |
| Esthonia . . . . . | I-XII | 345 | 163 | 19 | 91 |
| Latvia . . . . . | I-XII | 1,288 | 1,480 | 275 | 116 |
| Lithuania . . . . . | I-XII | 3,004 | 3,409 | 1,301 | 910 |
| Poland . . . . . | I-XII | 44,835 * | 40,792 | 14,149 * | 40,045 |
| Germany . . . . . | I-XII | 640 | 386 | 53 | 31 |
| Czechslovakia . . . . . | I-XII | 948 | 417 | 13 | 35 |
| Austria . . . . . | I-XII | 63 | 23 | — | — |
| Kingdom of the Serbs, Croats and Slovenes . . | I-XI | 1,054 | 92 | — | 1 |
| Constantinople . . . . . | I-XII | 204 | 195 | 155 | 1 |

* Data for the three Eastern provinces of Poland are missing for January-March 1921.

The incidence of typhus did not increase greatly in Central Europe in comparison with the previous year. Relapsing fever, on the other hand, has increased in certain localities and notably so in Eastern Poland. The sudden increase of the latter disease in Poland is closely connected with the refugees and others returning from Russia, as shown in Diagram 2. From January to June 1922, 170,194 persons were repatriated from Russia, passing the Polish quarantine stations, chiefly Baranovicze, and a high morbidity constantly prevailed. The most prevalent diseases were relapsing fever, of which 3,887 cases were recorded, and typhus, of which 1,780 cases were treated in the hospitals at the quarantine stations, giving for those two diseases alone a rate of incidence of 33.8 per 1,000 repatriated. The case fatality among them was high: 11.4 % for relapsing fever and 13.8 % for typhus. The close coincidence of typhus, and particularly of relapsing fever, with the number of repatriated settled in each province, suggests the eastern origin of the epidemic. Relapsing fever was confined practically to the six eastern provinces, the incidence reaching nowhere else as much as one case per 10,000 inhabitants.

An interesting suggestion is afforded by Diagram 2: namely, that the indicated case fatality continued to rise regularly during the months preceding the crest of the epidemic and then returned gradually to its former level. The movement was particularly marked in the case of relapsing fever, where the fatality increased from 1.7 registered deaths per 100 notified cases in September 1921 to 5.2 in December and January; but in July 1922 a new minimum of 2.2 had been reached.

A definite forecast can hardly be given for the present winter since data for December are not available in complete form, but certain indications may be furnished by the following table, in which are included only those governments from which data have been received for each of the months September, October and November, for 1921 as well as for 1922.

Incidence of Typhus and Relapsing Fever in Thirty-Six Governments of European Russia, September-November 1921 and 1922.

| Region | No. of governm. Available. | Incomplete. | *Typhus* Sept. | Oct. | Nov. | *Relapsing fever* Sept. | Oct. | Nov. |
|---|---|---|---|---|---|---|---|---|
| Western | 4 | 3 | 162 | 211 | 234 | 200 | 290 | 231 |
| | | | *297* | *398* | *641* | *440* | *767* | *811* |
| Northern | 8 | 1 | 985 | 832 | 1,245 | 710 | 487 | 580 |
| | | | *263* | *394* | *1,020* | *156* | *195* | *414* |
| Central | 9 | 2 | 1,416 | 1,458 | 1,864 | 2,878 | 2,458 | 2,616 |
| | | | *1,221* | *1,703* | *2,342* | *1,508* | *2,176* | *3,311* |
| South-Central | 5 | 0 | 1,618 | 1,474 | 1,231 | 3,921 | 4,448 | 3,009 |
| | | | *1,527* | *1,636* | *1,397* | *4,803* | *4,753* | *4,711* |
| Middle Volga | 4 | 5 | 1,056 | 961 | 1,355 | 2,272 | 1,964 | 1,662 |
| | | | *658* | *777* | *1,281* | *843* | *1,498* | *2,477* |
| Eastern | 3 | 5 | 2,673 | 3,873 | 4,484 | 4,635 | 6,596 | 6,587 |
| | | | *487* | *1,374* | *3,168* | *970* | *2,214* | *2,818* |
| Southern | 3 | 8 | 165 | 222 | 294 | 1,169 | 963 | 998 |
| | | | *116* | *139* | *276* | *723* | *858* | *1,447* |
| Total | 36 | — | 8,075 | 9,031 | 10,707 | 15,785 | 17,206 | 15,683 |
| | | | *4,569* | *6,421* | *10,125* | *9,443* | *12,461* | *15,989* |

*Note*: The data are on a basis of months of equal length. The figures in *italics* refer to 1921, those in ordinary type to 1922.

The table refers to 36 governments and autonomous territories of European Russia distributed throughout the various geographical regions with exception of the Ukraine; 24 governments and autonomous territories, besides the Ukraine, are excluded, the character of the data not warranting their

inclusion. It appears that the higher level of typhus and relapsing fever which existed throughout the summer continued into September and October, but the increase of both diseases was slower in 1922 than in the previous year, so that the November figures are about equal for the two years.

The incidence of typhus in 1922, taking the corresponding figure for 1921 as a unit, was 1.77 in September, 1.41 in October and 1.06 in November; the corresponding ratios for relapsing fever were 1.67 in September, 1.38 in October and 0.98 in November. It is possible, however, that additional returns for November may be received from some governments. It appears that typhus has increased more rapidly than relapsing fever, but the same was observed in 1921 and seems a normal condition.

A higher incidence of typhus in November 1922 than during the previous year is indicated in the eastern and northern regions, while its incidence is distinctly lower in the western region. Relapsing fever appears to be far more prevalent in the east than it was in 1921, while the returns for the other regions are, up to the present, lower than during November 1921.

While the data so far received are not alarming, they cannot be considered to constitute any definite indication as to the probable incidence of the two diseases during the whole of the current winter. The high prevalence during the past summer appears to have delayed the normal winter increase, which, nevertheless, may become serious at a later date.

## 2. ASIATIC CHOLERA.

The South-Russian cholera epidemic has come to an end, and it is now possible to describe its extent and character. Serious anxiety was caused by the rapid spread of cholera cases throughout nearly the whole of Russia during the winter and early spring of 1922 as well as by the high fatality rate. The rapid rate of increase which characterised the epidemic of 1921 did not occur, however, and the explosive outbreaks which are common with cholera during the summer months were largely confined to certain cities in the Black Sea region. In August the decline of the epidemic became evident, and in September only a few hundred cases were notified. In November only one case of cholera was reported in the Ukraine, and in December there were three cases.

The following table compares the progress of the cholera epidemics during 1921 and 1922 and, taking the corresponding figure for the previous year as a unit, shows the ratio for each month of 1922.

CASES OF CHOLERA NOTIFIED IN RUSSIA, 1920, 1921 AND 1922.

| Months | *Russia (without the Ukraine)* | | | | *The Ukraine* | | | |
|---|---|---|---|---|---|---|---|---|
| | 1920 | 1921 | 1922 | Ratio of 1922 to 1921 | 1920 | 1921 | 1922 | Ratio of 1922 to 1921 |
| January . . | 697 | 133 | 244 | 1.8 | 36 | 2 | 328 | 164.0 |
| February . | 716 | 97 | 230 | 2.4 | 115 | 2 | 232 | 116.0 |
| March . . | 492 | 219 | 1,179 | 5.4 | 789 | 3 | 807 | 269.0 |
| April . . . | 876 | 838 | 1,112 | 2.3 | 316 | 62 | 1,323 | 21.3 |
| May . . . . | 603 | 3,354 | 3,648 | 1.1 | 83 | 212 | 5,610 | 26.3 |
| June. . . . | 592 | 30,948 | 7,819 | 0.3 | 378 | 2,048 | 7,818 | 3.8 |
| July . . . | 2,754 | 85,171 | 11,746 | 0.1 | 2,405 | 5,341 | 22,052 | 4.1 |
| August. . . | 9,268 | 49,606 | 6,240 | 0.1 | 4,939 | 4,543 | 4,078 | 0.9 |
| September . | 4,238 | 12,703 | 593 | 0.0 | 1,810 | 1,664 | 119 | 0.1 |
| October . . | 522 | 5,053 | 108 | 0.0 | 263 | 150 | — | — |
| November . | 110 | 357 | — | — | 93 | 145 | 1 | — |
| December . | 147 | 216 | — | — | 1 | 292 | 3 | — |
| Not stated . | 168 | 1,896 | 10,330 | — | — | — | 1,144 | — |
| TOTAL . . | 21,183 | 190,591 | 44,049 | 0.2 | 11,228 | 14,464 | 43,515 | 3.0 |

The notification of cholera cases is far more complete in Russia than the notification of any other disease, but, unfortunately, a record of deaths from cholera which would have allowed a study of the case fatality is not available.

In the places where cholera was prevalent early in the year no sudden outbreak seems to have occurred during the summer, while in Odessa and in Astrakhan, where the situation became most serious, no case was observed until April. In the table below a few examples are given of the variations of the seasonal incidence observed in a number of governments.

CHOLERA CASES NOTIFIED IN CERTAIN GOVERNMENTS OF RUSSIA AND THE UKRAINE, 1921-22.

| Month | Kiev | Poltava | Kharkov | Odessa | Astrakhan | Kuban |
|---|---|---|---|---|---|---|
| October | 2 | 2 | 28 | 50 | 0 | 24 |
| November | 1 | 53 | 80 | 0 | 0 | 0 |
| December | 184 | 103 | 5 | 0 | 0 | 0 |
| January | 272 | 10 | 34 | 0 | 0 | 0 |
| February | 0 | 52 | 39 | 0 | 0 | 4 |
| March | 78 | 337 | 181 | 0 | 0 | 83 |
| April | 66 | 527 | 275 | 52 | 11 | 91 |
| May | 87 | 354 | 218 | 2,664 | 81 | 522 |
| June | 168 | 211 | 417 | 3,465 | 1,018 | 1,590 |
| July | 480 | 531 | 1,381 | 7,680 | 221 | 1,883 |
| August | 163 | 112 | 241 | 1,534 | 16 | 1,145 |
| September | 12 | 10 | 8 | 16 | 0 | 185 |
| TOTAL | 1,513 | 2,302 | 2,907 | 15,461 | 1,347 | 5,527 |
| Cases per 1,000 population | 0.4 | 1.0 | 1.2 | 8.1 | 3.5 | 1.9 |

Similar observations have been made in the previous years' cholera epidemics, and notably in 1920, for which the monthly totals are given in the table on page 11. Cholera was relatively prevalent that year during the winter season and early spring but declined in May; the following summer, outbreaks were not very large. The serious cholera epidemic in Odessa of midsummer 1922 forms an interesting contrast to the seasonal fluctuations of the disease in the same locality in 1920; a considerable outbreak occurred in March 1920 but had almost disappeared by June and July; a new increase was noted in August, which, however, did not even reach the level attained in March. The number of cholera cases observed during each month of 1920 in the government of Odessa were as follows:

| | | |
|---|---|---|
| January . . . . 21 | May . . . . . 24 | September . . . 152 |
| February . . . 74 | June . . . . 7 | October . . . . 65 |
| March . . . . 653 | July . . . . . 10 | November. . . . 18 |
| April . . . . . 84 | August . . . 281 | December . . . 0 |

The total incidence of cholera in the government of Odessa was only 0.7 per 1,000 population in 1920, as against 8.1 in 1922.

Much reliance has been placed by the Russian Health Administration in anti-cholera vaccination, and the experiment is interesting because of the vast scale on which it has been carried out. Anti-cholera vaccination is stated to have been successfully employed in 1921 in the army, but its use among civilians was negligible that year. During the current year not only has the entire army and the railway personnel been vaccinated and revaccinated, but over 12 million vaccinations were performed, of which, according to official statistics, 7 millions by the Russian Health Authorities, largely in the

Ukraine, and the remainder by the American Relief Administration, which operated particularly in the Volga and Ural region. Details of the vaccinations performed in each government are given in the table, Annex 3. The months in which the vaccinations under the control of the Health Administration were performed are stated to be as follows:

| Month | 1st injection | 2nd injection | 3rd injection | Total |
|---|---|---|---|---|
| January | 341 | 526 | 0 | 867 |
| February | 4,387 | 4,274 | 0 | 8,661 |
| March | 7,177 | 388 | 369 | 11,934 |
| April | 39,310 | 20,715 | 6,737 | 66,762 |
| May | 138,503 | 87,500 | 33,226 | 259,229 |
| June | 396,791 | 219,588 | 76,089 | 692,468 |
| July | 896,509 | 679,123 | 316,779 | 1,892,411 |
| August | 598,276 | 441,890 | 283,674 | 1,323,840 |
| Not stated | 1,279,641 | 937,424 | 494,029 | 2,785,525* |
| Total | 3,360,935 | 2,395,428 | 1,210,903 | 7,041,697* |

The only new outbreak of cholera noted in September took place in Arkhangel, where 81 cases were notified; no case has occurred at Murmansk, so far as our records show, and as navigation to Arkhangel is now closed by ice, this outbreak is of no immediate importance to Western Europe.

The few cases of cholera recorded in Poland and in Roumania in July and August (see *Epidemiological Intelligence* No. 4) have not been followed by any further outbreaks, and real epidemics are now out of the question until next summer.

## 3. DYSENTERY.

Dysentery was far less prevalent in 1922 than during the previous year; the decrease is very marked everywhere in Europe, and particularly so in Poland and in Germany, where a serious outbreak in the Westphalian region occurred the previous year. Only very incomplete data have been received so far from Russia, but no information has arrived which would indicate any unusual prevalence of dysentery. Data for the Ukraine up to the end of September show a lower incidence than during 1921.

The incidence of dysentery in various countries, where it is now more or less endemic, is given below for 1922 and compared with the corresponding period of last year.

CASES OF DYSENTERY NOTIFIED IN CERTAIN COUNTRIES, 1921 AND 1922.

| Country | Period | 1921 | 1922 |
|---|---|---|---|
| Germany | January-December | 31,624 | 5,036 |
| Czechoslovakia | January-December | 8,525 | 1,315 |
| Austria | January-November | 4,593 | 1,136 |
| Finland | January-December | 391 | 209 |
| Esthonia | January-December | 1,199 | 329 |
| Latvia | January-December | 1,162 | 913 |
| Lithuania | January-December | 1,155 | 356 |
| Poland | January-December | 30,998 | 14,335 |
| Ukraine | January-October | 46,263 | 36,591 |

* Including 74,431 vaccinations, the order of which was not stated.

Further details regarding the prevalence of dysentery during the current year are given in Table No. 4 (page 32). The notifications are generally incomplete and no distinction is made between the various types or causative agents, and the data relate merely to a group of intestinal infections with similar clinical symptoms.

## 4. SMALLPOX.

Smallpox has not been very prevalent anywhere in Europe during the current year. In Russia its incidence appears to be only half of what it was last year; 45,436 cases were notified during the first ten months of 1922, as against 98,578 during the whole of 1921 and 158,505 in 1920. The decrease is marked in practically every government of Russia; in the Ukraine 9,009 cases were registered for the first ten months of the current year, as against 29,041 in 1921. The local health authorities ascribe this decrease to a vaccination campaign which has been conducted throughout the country.

In Poland the incidence of smallpox declined from a maximum of 446 cases in April to 31 cases in December. In Germany and elsewhere in Central Europe, smallpox has been almost non-existent during recent months. In Switzerland, on the other hand, 1,153 cases were notified during the whole year, and in England there were 1,003 cases in 1922; the cases were, however, mostly very mild.

## 5. PLAGUE.

Plague has occurred in Russia only at Selo Fedosevka, on the Kalmuk Steppes, where 27 cases, of which 18 were fatal, were verified by a special enquiry in June, July and August, and in the Kirghis Steppes, where 23 cases suspected to be plague were reported in January. No further reports indicating the presence of plague in Russia have been received.

## 6. EPIDEMIC DISEASES OF THE CENTRAL NERVOUS SYSTEM.

Encephalitis lethargica, acute poliomyelitis and meningococcal meningitis have not shown any considerable prevalence in 1922. Encephalitis lethargica, which in the previous years has attracted much attention, has been far less prevalent than during the two preceding winters. Compulsory notification of this disease is of recent date and not, as yet, generally adopted; reliable data are restricted, therefore, to half a score of countries, largely in the northern part of Europe. Fewer cases are known to have occurred in the Mediterranean countries than in Northern Europe; but cases have been observed as far south as Algeria, where twenty cases appear in the epidemic records for the last two years. An outbreak of a mild character occurred in the first months of the year in Northern Italy.

Such details as have been received regarding the prevalence of encephalitis lethargica are given in Table No. 12 (page 41) and its incidence is given below for a few countries where it was most prevalent and where data are available for three years.

Cases of Encephalitis Lethargica notified in certain European Countries. 1920-1922.

| Country | 1920 | 1921 | 1922 |
|---|---|---|---|
| Finland . . . . . | 239 | 998 | 46 |
| Sweden . . . . . | 136 | 1,504 | 161 |
| Norway (cities) . . . | 9 | 55 | 7 |
| Denmark . . . . . | 194 | 135 | 36 |
| England and Wales . | 890 | 1,470 | 463 |
| Belgium . . . . . | 17 | 243 | 21 |
| Switzerland. . . . . | 984 | 154 | 62 |

Encephalitis lethargica reminds one, in respect of its present geographical distribution, of the first considerable outbreaks of acute poliomyelitis, which caused such severe epidemics in the Scandinavian countries in 1905 and 1911-12. In Southern Europe, up to the present, acute poliomyelitis has occurred only sporadically, in spite of the fact that, in Northern Europe and in America, the most favourable season for its development falls in the warmest months.

Cases of epidemic cerebro-spinal meningitis have been notified in nearly all countries of Europe, but they have been nowhere widespread. An increased incidence was noted in Germany, where 1,622 cases were reported in 1922, as against 696 cases in 1921. A certain increase is indicated also in Czechoslovakia, from 78 cases in 1921 to 215 cases in 1922.

## 7. MALARIA.

Malaria has now been considerably reduced in Central and Southern Europe, where new endemic centres had developed during the war. In Poland, for example, about 17,000 cases of malaria were notified in 1922, as against 53,000 in 1921.

Malaria has always been prevalent in the river valleys of Southern and Eastern Russia, but little information is available as to the actual incidence. In recent years new regions have become infected, and grave concern has been caused by the appearance of large numbers of severe cases of the tropical type in European Russia, where such forms were formerly rare. A Central Malaria Commission, as well as local commissions in the most affected areas, have been formed, therefore, with the object of gathering information on malaria and of studying possible means of controlling it. More than 1,000,000 cases of malaria were officially notified in 1922, but it appears from local sources that this represents only a small fraction of the actual incidence.

Turkestan is believed to have been the principal centre from which the epidemic has spread in its severe form. During recent years the artifical irrigation system of Turkestan has fallen into disrepair and about one-fourth of the whole area is said to have become mosquito-infected swamps; many villages are entirely abandoned because of the malaria. In 1921, 210,000 cases were officially notified, and 105,000 during the first ten months of 1922. The fact that 45,000 cases were returned by the Turkestan railway authorities in 1921 shows that the railway is an important factor in the spread of malaria from Turkestan to Russia.

Caucasia appears to be the hardest hit by malaria. In Georgia 300,000 cases were notified in 1921 and the epidemic is said to be still increasing; 177,000 cases were reported in Daghestan during the first eleven months of 1922; Azerbeidjan and the Mountain Republics are also seriously infected. In

the Government of Stavropol 110,000 cases were notified; in Terek the proportion of the population infected is reported to vary from 30 to 80% and the case fatality to average from 15 to 20%.

Very large numbers of malaria cases are also reported from the governments on the Middle and Lower Volga and the Don; very incomplete official statistics place the number of cases notified in this region at over 200,000. Blood examinations made in the government of Saratov indicated 26% of tropical forms in 1921 but 86% in 1922. The mass movement of refugees during the famine period has caused an unusual spread of malaria in and beyond this area. The considerable increase of malaria in Central Russia is also attributed to the refugee movements; in the government of Moscow 28,600 cases were notified during the first eleven months of 1922. Even the distant northern governments of Severodvinsk and Arkhangel recorded 10,000 and 6,000 cases of malaria, respectively, during the same period. 15,000 cases of malaria were notified on the waterways from January to July, and 77,000 cases on the railways from January to September. The months of maximum incidence were April, August and September; the autumn epidemic appears to have been more severe than the spring outbreak.

## 8. OTHER EPIDEMIC DISEASES.

The incidence of enteric fever, scarlet fever and diphtheria in various countries for 1922 is compared with the corresponding figures for 1921 in the table below; further details regarding these diseases are given in Tables Nos. 6, 8 and 9 (pages 34, 38 and 39 respectively).

CASES OF ENTERIC FEVER, SCARLET FEVER AND DIPHTHERIA NOTIFIED IN VARIOUS EUROPEAN COUNTRIES IN 1921 AND 1922.

| Country | *Enteric fever* | | *Scarlet fever* | | *Diphtheria* | |
|---|---|---|---|---|---|---|
| | 1921 | 1922 | 1921 | 1922 | 1921 | 1922 |
| England and Wales | 2,925 | 2,460 | 101,368 | 107,924 | 51,397 | 52,197 |
| Netherlands | 1,730 | 1,010 | 2,419 | 3,276 | 6,290 | 4,705 |
| Switzerland | 383 | 340 | 2,647 | 2,270 | 6,222 | 4,409 |
| Germany | 18,808 | 10,993 | 48,281 | 32,443 | 63,018 | 37,949 |
| Czechoslovakia | 9,207 | 6,705 | 9,563 | 10,785 | 4,328 | 3,244 |
| Austria | 4,097 | 2,172 | 3,868 | 2,323 | 3,634 | 2,498 |
| Italy | 29,602 | 22,973 | 8,744 | 10,532 | 10,416 | 10,523 |
| Denmark | 334 | 456 | 5,813 | 4,649 | 7,235 | 7,064 |
| Norway (cities) | 568 | 191 | 434 | 812 | 1,794 | 784 |
| Sweden | 813 | 911 | 6,939 | 10,710 | 12,286 | 6,548 |
| Finland | 1,311 | 1,298 | 1,320 | 990 | 3,750 | 1,941 |
| Esthonia | 1,256 | 854 | 1,393 | 594 | 771 | 522 |
| Latvia | 1,431 | 1,011 | 1,532 | 1,598 | 964 | 698 |
| Lithuania | 1,277 | 1,140 | 752 | 437 | 284 | 292 |
| Poland | 25,296 | 19,509 | 23,865 | 13,225 | 3,436 | 3,719 |
| Ukraine | 95,099 | 82,533 | 28,523 | 13,933 | 14,436 | 9,878 |
| Russia | 316,622 | 192,480 | 77,534 | 35,697 | 25,216 | 18,222 |

The above diseases have been grouped together merely for the sake of convenience and the figures are not comparable for the several countries because of the differing standard of notification. It is of interest, however, to compare 1922 with the previous year for each country separately and particularly so in the case of enteric fever, the incidence of which shows in many cases some sanitary improvement. It is seen from the above table that enteric fever has decreased from 1921 to 1922 in all of these countries, and particularly so in Central Europe.

The figures of paratyphoid fevers are, unfortunately, only separated from those of typhoid fever in a few countries, and details regarding the type are only given in exceptional cases. The highest number of paratyphoid notifications were returned from Denmark, where there were 229 cases from January to November, as against 227 cases of typhoid fever; and from Switzerland, where there were 79 cases of paratyphoid fevers as against 261 cases of typhoid fever; in Esthonia 110 cases of paratyphoid fevers and 744 cases of typhoid fever; in Belgium 51 cases of paratyphoid fevers; in Czechoslovakia 45 cases; and in Latvia 27 cases. The cases in Czechoslovakia were given as 35 of type B, 7 of type A and 3 not specified. It may safely be assumed that these figures represent only a fraction of the incidence of paratyphoid infections.

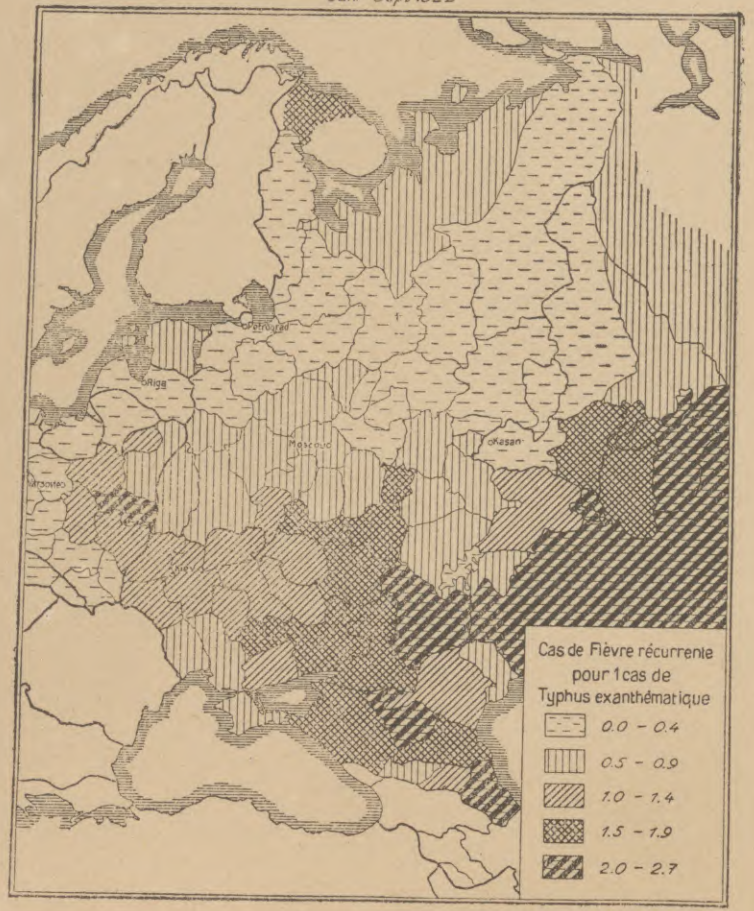
This comparison is of less interest in the case of scarlet fever and diphtheria because these diseases move in more or less well-defined waves of several years' length; their prevalence, however, has not increased in Europe generally during the current year. In several countries they have both decreased, but there is no reason to assume that this will be permanent. Both diseases had their maximum incidence during the first three months of the year and declined until June or July, when a slow increase again began. This is in accordance with their normal incidence, although their seasonal concentration is far less marked than is the case, for instance, with typhus, relapsing fever, cholera or dysentery.

It is interesting to note the cases of anthrax reported from various countries of Central and Eastern Europe. In Germany 125 cases of human anthrax were notified in 1922, as against 80 cases in 1921; in Czechoslovakia 69 cases, in Poland 47 cases, and in Latvia 6 cases were officially notified in 1922. In the Ukraine 306 cases of human anthrax were notified from January to May.

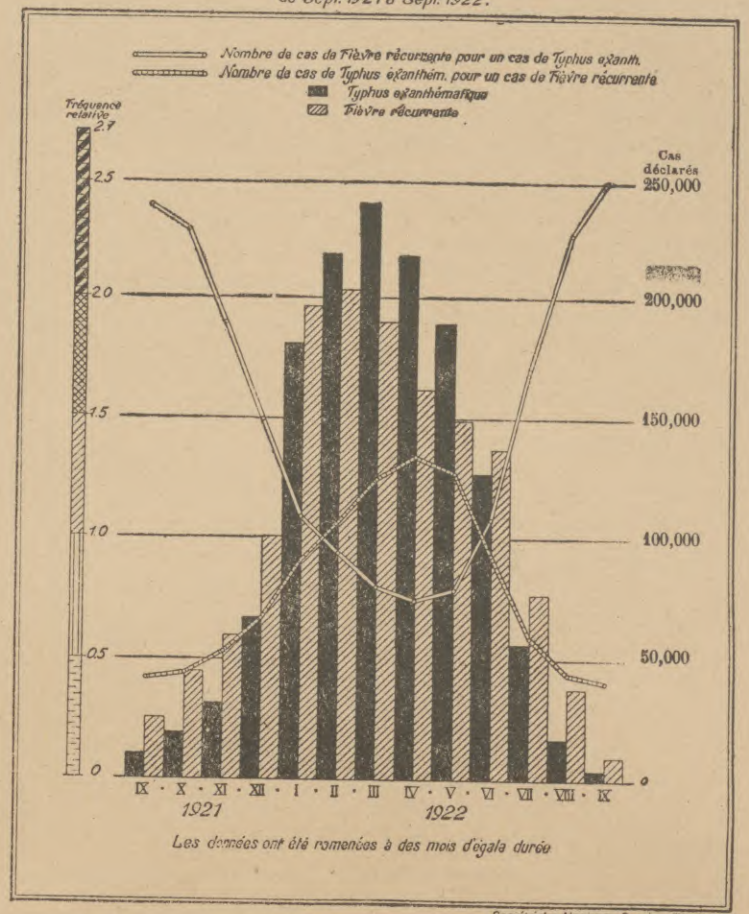
The figures given in previous numbers of *Epidemiological Intelligence* for typhus, relapsing fever, cholera, dysentery, smallpox and typhoid fever in Central and Eastern Europe are brought up to date in the following tables. A new table giving the number of malaria cases notified in Russia and Poland has been added. In addition to these regular tables, data for certain diseases of general European interest have been inserted. Acute poliomyelitis, encephalitis lethargica and influenza are given only for those few countries in which notification is compulsory.

# Comparative Incidence of Typhus and Relapsing Fever in Russia.

I Distribution géographique
Jan. - Sept 1922




II Rapport des nombres de cas par mois en Russie de Sept. 1921 à Sept. 1922.

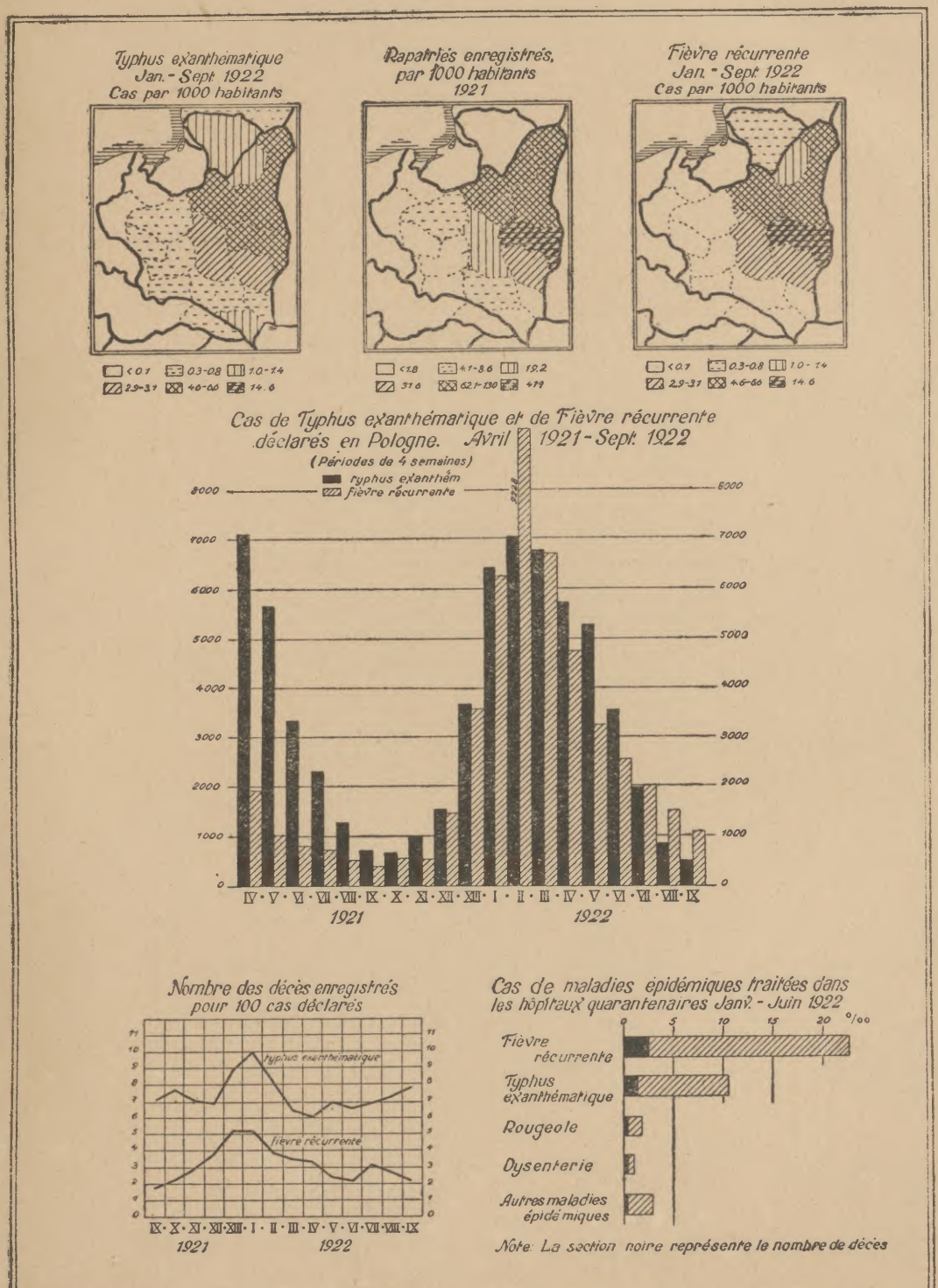



Société des Nations - Section d'Hygiène
Service des renseignements épidémiologiques

DIAGRAM No. 1.

DIAGRAM No. 2.

## Incidence of Typhus and Relapsing Fever in Poland, 1921-1922.




Société des Nations - Section d'Hygiène
Service des renseignements épidémiologiques

ANNEX 1.

## Incidence and Mutual Relation of Typhus and Relapsing Fever in Russia, 1921-22.

| Governments | Incidence per 1,000 population | | | | Ratio of 1922 Incidence to 1921 | | Cases of Relapsing Fever for each case of Typhus | | Ratio of Relapsing Fever increase to Typhus incr. |
|---|---|---|---|---|---|---|---|---|---|
| | Typhus | | Relapsing Fever | | | | | | |
| | 1921 | 1922 | 1921 | 1922 | Typhus | Relaps. Fever | 1921 | 1922 | |
| *Western Region:* | | | | | | | | | |
| Petrograd City | 5.1 | 10.2 | 7.9 | 6.0 | 2.00 | 0.76 | 1.5 | 0.6 | 0.38 |
| Petrograd Gov. | 1.8 | 3.7 | 1.1 | 1.4 | 2.10 | 1.24 | 0.6 | 0.4 | 0.59 |
| Novgorod | 2.4 | 3.4 | 1.7 | 1.2 | 1.42 | 0.70 | 0.7 | 0.3 | 0.49 |
| Pskov | 5.4 | 2.6 | 1.6 | 0.9 | 0.48 | 0.60 | 0.3 | 0.4 | 1.25 |
| Vitebsk | 10.0 | 4.9 | 7.5 | 3.8 | 0.49 | 0.51 | 0.8 | 0.8 | 1.04 |
| White Russian Rep. | 20.5 | 7.4 | 20.4 | 7.5 | 0.36 | 0.37 | 1.0 | 1.0 | 1.03 |
| Gomel | 9.1 | 6.3 | 8.3 | 4.4 | 0.69 | 0.53 | 0.9 | 0.7 | 0.77 |
| *Northern Region:* | | | | | | | | | |
| Murmansk | — | 24.8 | — | 33.5 | — | — | — | 1.3 | — |
| Karelian Comm. | 4.1 | 10.9 | 0.9 | 4.6 | 2.69 | 5.40 | 0.2 | 0.4 | 2.01 |
| Arkhangel | 6.5 | 4.1 | 6.9 | 2.9 | 0.84 | 0.67 | 1.1 | 0.7 | 0.80 |
| Olonetz | 2.8 | 3.1 | 1.2 | 0.5 | 1.07 | 0.44 | 0.4 | 0.2 | 0.41 |
| Cherepovetz | 3.8 | 3.6 | 1.8 | 1.2 | 0.94 | 0.71 | 0.5 | 0.4 | 0.76 |
| Vologda | 4.0 | 9.6 | 1.0 | 4.5 | 2.43 | 4.54 | 0.2 | 0.5 | 1.87 |
| Severodvinsk | 4.9 | 7.6 | 0.8 | 2.2 | 1.69 | 2.97 | 0.2 | 0.3 | 1.76 |
| Zirian Region | — | 2.1 | — | 0.8 | — | — | — | 0.4 | — |
| Kostroma | 2.9 | 7.1 | 0.7 | 2.4 | 2.44 | 3.27 | 0.3 | 0.3 | 1.34 |
| *Central Region:* | | | | | | | | | |
| Rybinsk | 2.4 | 10.4 | 1.5 | 5.5 | 4.25 | 3.74 | 0.6 | 0.5 | 0.88 |
| Yaroslavl | 7.0 | 16.3 | 1.9 | 6.1 | 2.33 | 3.16 | 0.3 | 0.4 | 1.36 |
| Ivanovo-Vosniessensk | 2.4 | 7.5 | 1.7 | 3.7 | 3.10 | 2.19 | 0.7 | 0.5 | 0.71 |
| Vladimir | 4.5 | 12.1 | 1.4 | 4.9 | 2.69 | 3.47 | 0.3 | 0.4 | 1.29 |
| Tver | 5.7 | 5.3 | 2.1 | 2.4 | 0.93 | 1.16 | 0.4 | 0.5 | 1.25 |
| Smolensk | 9.3 | 8.0 | 5.8 | 5.0 | 0.87 | 0.87 | 0.6 | 0.6 | 1.00 |
| Moscow City | 4.2 | 17.9 | 5.1 | 17.2 | 4.29 | 3.35 | 1.2 | 1.0 | 0.78 |
| Moscow Gov. | 4.0 | 13.7 | 3.3 | 9.4 | 3.41 | 2.85 | 0.8 | 0.7 | 0.84 |
| Kaluga | 7.0 | 14.1 | 5.5 | 8.7 | 2.00 | 1.57 | 0.8 | 0.6 | 0.79 |
| Tula | 6.5 | 8.1 | 5.3 | 5.5 | 1.23 | 1.05 | 0.8 | 0.7 | 0.85 |
| Riazan | 6.6 | 6.6 | 4.5 | 4.0 | 1.00 | 0.89 | 0.7 | 0.6 | 0.89 |
| *South-Central Region:* | | | | | | | | | |
| Briansk | 4.6 | 8.9 | 9.5 | 12.4 | 1.92 | 1.31 | 2.0 | 1.4 | 0.68 |
| Orel | 6.0 | 7.4 | 8.0 | 11.9 | 1.22 | 1.49 | 1.3 | 1.6 | 1.22 |
| Tambov | 7.0 | 5.2 | 11.8 | 8.6 | 0.75 | 0.73 | 1.7 | 1.6 | 0.97 |
| Voronezh | 3.2 | 3.7 | 6.5 | 6.7 | 1.16 | 1.02 | 2.0 | 1.8 | 9.88 |
| Kursk | 7.8 | 8.4 | 7.8 | 9.1 | 1.08 | 1.17 | 1.0 | 1.1 | 1.08 |
| *The Ukraine:* | | | | | | | | | |
| Volhynia | 1.8 | 3.1 | 3.4 | 4.5 | 1.75 | 1.33 | 1.9 | 1.5 | 0.76 |
| Podolia | 1.7 | 4.4 | 5.0 | 7.5 | 2.56 | 1.52 | 2.9 | 1.7 | 0.59 |
| Kiev | 1.4 | 5.2 | 2.7 | 7.8 | 3.80 | 2.85 | 2.0 | 1.5 | 0.75 |
| Chernigov | 5.9 | 13.3 | 3.4 | 14.4 | 2.26 | 4.30 | 0.6 | 1.1 | 1.90 |
| Kremenchug | 7.4 | 13.2 | 14.4 | 19.8 | 1.78 | 1.38 | 1.9 | 1.5 | 0.78 |
| Poltava | 5.9 | 22.9 | 5.5 | 24.1 | 3.91 | 4.39 | 0.9 | 1.1 | 1.12 |
| Kharkov | 7.9 | 9.8 | 10.7 | 13.4 | 1.24 | 1.26 | 1.3 | 1.4 | 1.02 |
| Odessa | 7.9 | 34.0 | 19.7 | 22.6 | 4.30 | 1.14 | 2.5 | 0.7 | 0.27 |
| Nicolaiev | 13.0 | 15.4 | 19.9 | 15.4 | 1.83 | 0.77 | 1.5 | 1.0 | 0.42 |
| Ekaterinoslavl | 2.0 | 13.8 | 9.2 | 28.4 | 6.98 | 3.10 | 4.6 | 2.1 | 0.44 |
| Zaporozhe | 3.9 | 15.5 | 12.0 | 23.0 | 3.97 | 1.91 | 3.1 | 1.5 | 0.48 |
| Donetz | 3.0 | 9.2 | 15.2 | 16.7 | 2.73 | 1.10 | 5.1 | 2.0 | 0.40 |
| *Crimea* | 7.0 | 20.1 | 8.9 | 10.2 | 2.87 | 1.15 | 1.3 | 0.5 | 0.40 |
| *Middle Volga Region:* | | | | | | | | | |
| Nijni-Novgorod | 6.4 | 8.8 | 2.6 | 4.5 | 1.38 | 1.70 | 0.4 | 0.5 | 1.23 |
| Mariskaia Reg. | — | 22.3 | — | 8.8 | — | — | — | 0.4 | — |
| Chuvach Reg. | 3.1 | 9.8 | 3.0 | 6.9 | 3.19 | 2.29 | 1.0 | 0.7 | 0.72 |
| Tartar Rep. | 9.6 | 13.7 | 4.3 | 7.2 | 1.42 | 1.67 | 0.4 | 0.5 | 1.18 |
| Simbirsk | 6.6 | 24.0 | 4.4 | 14.0 | 3.64 | 3.16 | 0.7 | 0.6 | 0.87 |
| Penza | 7.3 | 15.2 | 6.3 | 14.3 | 2.07 | 2.26 | 0.9 | 0.9 | 1.09 |
| Saratov | 6.7 | 13.1 | 5.4 | 8.4 | 1.95 | 1.56 | 0.8 | 0.6 | 0.80 |
| Samara | 2.7 | 9.0 | 3.4 | 11.5 | 3.27 | 3.35 | 1.3 | 1.3 | 1.02 |
| German Comm. | 14.3 | 29.9 | 4.2 | 12.3 | 2.09 | 2.92 | 0.3 | 0.4 | 1.40 |

Cas de Paludisme constatés en Russie, 1922.

*Cases of Malaria notified in Russia, 1922.*

ANNEX 1 *(continued).*

## Incidence and Mutual Relation of Typhus and Relapsing Fever in Russia, 1921-22.

| Governments | Incidence per 1,000 population | | | | Ratio of 1922 Incidence to 1921 | | Cases of Relapsing Fever for each case of Typhus | | Ratio of Relapsing Fever increase to Typhus incr. |
|---|---|---|---|---|---|---|---|---|---|
| | Typhus | | Relapsing Fever | | | | | | |
| | 1921 | 1922 | 1921 | 1922 | Typhus | Relaps. Fever | 1921 | 1922 | |
| *Southern Region:* | | | | | | | | | |
| Tzaritzin | 1.8 | 4.5 | 6.1 | 9.0 | 2.51 | 1.47 | 3.4 | 2.0 | 0.59 |
| Astrakhan | — | 10.1 | — | 9.2 | — | — | — | 0.9 | — |
| Kalmuk Region | — | 8.4 | — | 8.6 | — | — | — | 1.0 | — |
| Region of Don | 0.5 | 1.8 | 1.7 | 3.7 | 3.53 | 2.19 | 3.2 | 2.0 | 0.62 |
| Kubano-Chernomorsk | — | 4.9 | — | 8.8 | — | — | — | 1.8 | — |
| Stavropol | 1.3 | 2.9 | 3.3 | 7.5 | 2.23 | 2.27 | 2.5 | 2.6 | 1.02 |
| Terek | — | 5.3 | — | 8.9 | — | — | — | 1.7 | — |
| Daghestan | — | 2.1 | — | 5.0 | — | — | — | 2.4 | — |
| Azerbeidjan | — | 2.5 | — | 1.8 | — | — | — | 0.7 | — |
| Mountain Republics | — | 7.1 | — | 8.6 | — | — | — | 1.2 | — |
| *Eastern Region:* | | | | | | | | | |
| Viatka | 9.9 | 17.3 | 2.8 | 6.1 | 1.74 | 2.20 | 0.3 | 0.4 | 1.26 |
| Votyak Territory | — | 37.3 | — | 17.3 | — | — | — | 0.5 | — |
| Perm | 8.4 | 26.8 | 2.2 | 9.8 | 3.19 | 4.50 | 0.3 | 0.4 | 1.40 |
| Ekaterinburg | 7.2 | 26.7 | 9.6 | 30.6 | 3.72 | 3.18 | 1.3 | 1.1 | 0.85 |
| Tiumen | 2.2 | 10.0 | 2.8 | 9.0 | 4.64 | 3.25 | 1.3 | 0.9 | 0.70 |
| Cheliabinsk | 3.5 | 4.5 | 8.8 | 15.8 | 1.29 | 1.78 | 2.5 | 3.5 | 1.38 |
| Bachkir Republic | 1.2 | 6.8 | 0.8 | 16.2 | 5.48 | — | 0.6 | 2.4 | — |
| Ufa | 3.7 | 5.7 | 6.2 | 9.0 | 1.55 | 1.44 | 1.7 | 1.6 | 0.93 |
| *Kirghiz Republic:* | | | | | | | | | |
| Bukeev | — | 0.5 | — | 1.5 | — | — | — | 2.9 | — |
| Uralsk | — | 1.1 | — | 4.0 | — | — | — | 3.7 | — |
| Orenburg | — | 12.8 | — | 34.6 | — | — | — | 2.7 | — |
| Aktiubinsk | — | 3.5 | — | 8.7 | — | — | — | 2.5 | — |
| Kustanai | — | 1.1 | — | 4.9 | — | — | — | 4.4 | — |
| Akmolinsk | — | 2.8 | — | 11.6 | — | — | — | 4.2 | — |
| Semipalatinsk | — | 6.0 | — | 6.1 | — | — | — | 1.0 | — |
| Total | 0.9 | 4.5 | 3.6 | 10.9 | 5.26 | 3.04 | 4.2 | 2.4 | 0.58 |
| *Turkestan:* | | | | | | | | | |
| Turkmen | — | 2.9 | — | 4.0 | — | — | — | 1.4 | — |
| Syr Daria | — | 4.6 | — | 5.4 | — | — | — | 1.2 | — |
| Samarkand | — | 2.3 | — | 1.5 | — | — | — | 0.6 | — |
| Fergan | — | 1.0 | — | 0.2 | — | — | — | 0.2 | — |
| Semiretchinsk | — | 1.5 | — | 1.8 | — | — | — | 1.2 | — |
| Total | 1.4 | 2.3 | 2.2 | 2.3 | 2.77 | 1.68 | 1.7 | 1.0 | 0.61 |
| *Siberia:* | | | | | | | | | |
| Omsk | — | 4.8 | — | 6.7 | — | — | — | 1.4 | — |
| Tomsk | — | 6.7 | — | 8.5 | — | — | — | 0.8 | — |
| Altai | — | 3.1 | — | 1.7 | — | — | — | 0.6 | — |
| Ennessei | — | 8.0 | — | 6.5 | — | — | — | 0.8 | — |
| Novo-Nicolaiev | — | 3.8 | — | 5.2 | — | — | — | 1.4 | — |
| Irkutsk | — | 5.9 | — | 2.1 | — | — | — | 0.4 | — |
| Total | 4.2 | 5.1 | 5.1 | 4.6 | 1.16 | 0.88 | 1.2 | 0.9 | 0.76 |
| Railways | — | — | — | — | 3.77 | 2.05 | 1.6 | 0.9 | 0.61 |
| Waterways | — | — | — | — | — | — | 0.8 | 0.4 | — |
| Prisons | — | — | — | — | 1.71 | 1.09 | 3.7 | 2.3 | 0.64 |
| Red Army | — | — | — | — | 0.44 | 0.32 | 3.4 | 2.5 | 0.73 |
| Grand Total | — | — | — | — | 1.93 | 1.37 | 1.4 | 1.02 | 0.71 |

ANNEX 2.

## Number of Relapsing Fever Cases notified in Russia for each Case of Typhus from September 1921 to November 1922. Monthly Index for each Geographical Region.

| Month | Western | Northern | Central | South Central | Ukraine | Middle Volga | Southern | Eastern | Railways | Total, Russia |
|---|---|---|---|---|---|---|---|---|---|---|
| September . . . . | 1.79 | 0.59 | 1.14 | 3.15 | 4.76 | 1.53 | 6.22 | 1.74 | 4.23 | 2.40 |
| October . . . . . | 2.10 | 0.49 | 1.40 | 2.91 | 3.29 | 1.03 | 4.94 | 2.23 | 2.95 | 2.29 |
| November . . . . | 1.99 | 0.40 | 1.30 | 3.37 | 2.98 | 1.30 | 3.74 | 1.31 | 1.96 | 1.90 |
| December . . . . | 1.30 | 0.76 | 0.95 | 2.73 | 2.03 | 0.93 | 2.61 | 1.04 | 1.34 | 1.50 |
| January . . . . . | 0.90 | 0.52 | 0.78 | 1.77 | 1.29 | 0.66 | 1.50 | 0.73 | 0.96 | 1.08 |
| February . . . . | 0.75 | 0.35 | 0.58 | 1.50 | 0.97 | 0.62 | 1.36 | 0.61 | 0.89 | 0.92 |
| March . . . . . | 0.55 | 0.30 | 0.46 | 1.18 | 0.92 | 0.57 | 1.34 | 0.55 | 0.84 | 0.79 |
| April . . . . . | 0.49 | 0.28 | 0.43 | 1.03 | 0.88 | 0.51 | 1.32 | 0.53 | 0.71 | 0.75 |
| May . . . . . | 0.45 | 0.27 | 0.47 | 1.21 | 0.99 | 0.59 | 1.50 | 0.52 | 0.83 | 0.78 |
| June . . . . . | 0.70 | 0.34 | 0.73 | 1.43 | 1.52 | 0.82 | 2.66 | 0.84 | 1.20 | 1.10 |
| July . . . . . | 1.32 | 0.80 | 1.13 | 2.19 | 2.58 | 1.38 | 3.37 | 1.33 | 2.15 | 1.86 |
| August . . . . . | 1.46 | 0.80 | 1.62 | 2.80 | 3.99 | 2.76 | 4.48 | 2.39 | 3.48 | 2.79 |
| September . . . . | 2.00 | 0.72 | 2.06 | 2.42 | 4.28 | 2.47 | 5.42 | 2.25 | 3.51 | 2.85 |
| October . . . . . | 1.85 | 0.59 | 1.59 | 3.02 | 3.86 | 1.92 | 4.09 | 1.54 | — | 2.38 |
| November . . . . | 1.06 | 0.47 | 1.40 | 2.45 | — | 1.18 | 2.86 | 1.44 | — | 1.50 |

ANNEX 3.

## Number of Anti-Choleric and Anti-Typhoid Vaccinations performed by Russian Health Administration from January to August 1922.

| Governments | 1st Injection | 2nd Injection | 3rd Injection | Total | Tetra-vaccine distributed by the A. R. A. |
|---|---|---|---|---|---|
| *Western Region:* | | | | | |
| City of Petrograd | 12,408 | 9,637 | 26 | 22,071 | 91,165 |
| Government of Vitebsk | 1,302 | 1,229 | 255 | 2,786 | — |
| White Russian Republic | 9,093 | 87 | 0 | 9,180 | 300,000 |
| *Northern Region:* | | | | | |
| Karelian Community | 45 | 45 | 40 | 130 | |
| Arkhangel | 2,118 | 1,775 | 760 | 4,653 | |
| Government of Severodvinsk | 1,349 | 1,033 | 0 | 2,382 | |
| Zirian Region | 461 | 454 | 0 | 915 | |
| *Central Region:* | | | | | |
| Government of Rybinsk | 300 | 120 | 0 | 420 | |
| Vladimir | 3,733 | 1,107 | 29 | 4,869 | |
| Tver | 2,743 | 2,223 | 2 | 4,968 | |
| Smolensk | 5,307 | 2,419 | 0 | 7,726 | |
| Moscow | — | — | — | — | 65,000 |
| Tula | 3,437 | 2,306 | 353 | 6,096 | |
| *South-Central Region:* | | | | | |
| Government of Orel | 9,941 | 6,551 | 0 | 16,492 | |
| Tambov | 13,381 | 9,655 | 3,088 | 26,124 | |
| Voronezh | 63,245 | 44,810 | 15,524 | 123,579 | |
| Kursk | 13,478 | 6,892 | 1,336 | 21,706 | |
| *The Ukraine:* | | | | | |
| District of Volhynia | 53,022 | 33,773 | 13,274 | 100,069 | |
| Podolia | 65,256 | 44,015 | 31,445 | 147,016 | |
| Kiev | 37,852 | 17,093 | 9,728 | 64,673 | 106,000 [1] |
| Chernigov | 35,000 | 20,726 | 14,508 | 70,234 | |
| Kremenchug | 41,196 | 32,174 | 23,826 | 97,196 | |
| Poltava | 111,676 | 71,703 | 43,246 | 226,625 | |
| Kharkov | 67,008 | 51,403 | 28,542 | 146,953 | 250,000 [2] |
| Odessa | 192,039 | 146,862 | 107,905 | 446,806 | 155,898 |
| Nicolaiev | 130,680 | 81,169 | 16,860 | 228,709 | |
| Ekaterinoslav | 100,034 | 67,122 | 42,595 | 209,751 | |
| Zaporozhe | 124,015 | 96,439 | 67,692 | 288,146 | 145,453 [3] |
| Donetz | 178,783 | 115,975 | 60,200 | 354,958 | |
| Railway | 155,952 | 102,594 | 62,854 | 321,400 | |
| Ukrevac | 25,501 | 10,912 | 1,325 | 37,738 | |
| Military | 321,500 | 293,000 | 139,000 | 753,500 | |
| Government not stated | 878,409 | 608,638 | 291,143 | 1,778,190 | |
| Total, Ukraine | 2,517,923 | 1,793,598 | 954,143 | 5,265,664 | |

[1] Includes Podolia and Chernigov.
[2] Includes Poltava and Kremenchug.
[3] Includes Donetz.

ANNEX 3 *(continued).*

## Number of Anti-Choleric and Anti-Typhoid Vaccinations performed by Russian Health Administration from January to August 1922.

| Governments | 1st Injection | 2nd Injection | 3rd Injection | Total | Tetra-vaccine distributed by the A. R. A. |
|---|---|---|---|---|---|
| *Crimea* | 80,288 | 80,288 | 80,288 | 240,864 | 15,000 |
| *Middle Volga Region:* | | | | | |
| Tartar Republic | — | — | — | 57,098 | 526,368 |
| Government of Simbirsk | 16,867 | 9,099 | 1,398 | 27,364 | 404,550 |
| » » Penza | 2,943 | 2,313 | 1,553 | 6,808 | |
| » » Saratov | 9,319 | 8,023 | 2,202 | 19,544 | 800,000 |
| » » Samara | 12,363 | 10,991 | 108 | 23,462 | 585,806 |
| German Communities | 228 | 288 | 44 | 500 | |
| *Southern Region:* | | | | | |
| Government of Tzaritzin | 19,975 | 14,273 | 5,390 | 39,638 | 75,000 |
| » » Astrakhan | 6,709 | 1,442 | 1,001 | 9,152 | |
| » » Kalmuk Terr. | 217 | 192 | 161 | 570 | |
| Don Territory | 11,010 | 7,523 | 2,109 | 20,642 | 206,560 |
| Kubano-Chernomorsk | 69,571 | 56,268 | 58,319 | 184,158 | |
| Government of Stavropol | 1,291 | 615 | 448 | 2,354 | |
| Terek | 5,602 | 5,215 | 268 | 11,085 | |
| Cherkasse Republic | 1,068 | 930 | 451 | 2,449 | |
| Kabardinsk | — | — | — | 10,000 | |
| Gorskaia Republic | 13,225 | 10,002 | 347 | 23,574 | |
| Azerbeidjan Republic | 43,810 | 28,081 | 0 | 71,891 | |
| *Eastern Region:* | | | | | |
| Government of Viatka | 6,168 | 3,804 | 614 | 10,586 | |
| Votyak Territory | — | — | — | 7,144 | |
| Government of Perm | 14,662 | 6,232 | 1,507 | 22,401 | |
| » » Ekaterinburg | 104,254 | 73,768 | — | 178,022 | |
| » » Tiumen | 11,825 | 8,075 | 406 | 20,306 | |
| » » Cheliabinsk | 56,474 | 42,588 | 9,088 | 108,150 | |
| Bachkir Republic | 165,254 | 112,152 | 62,485 | 339,891 | |
| Government of Ufa | — | — | — | — | 1,600,000 |
| *Kirghiz Republic* | 22,968 | 9,800 | 2,879 | 35,647 | 75,000 |
| *Turkestan Republic* | 24,580 | 19,585 | 4,281 | 48,446 | |
| Total, Russia | 3,360,935 | 2,395,428 | 1,210,903 | 7,041,697 | 5,401,800 |

ANNEX 4.

## Composition of the Geographical Divisions of Russia adopted for the Statistical Tables of "Epidemiological Intelligence."

Considerable difficulty has been experienced in finding suitable limits for a geographical division of Russia into zones which are more or less homogeneous, at least from an epidemiological point of view. European Russia, which is one vast plain interrupted by no mountain chain or other considerable natural barrier of consequence, presents no sudden transitions neither ethnologically, anthropologically, economically nor epidemiologically, but the various groups are welded together through an infinite number of shadings.

One division of real importance is the region of the Black Soil in the south and the region of the Simple Soil to the north, a division which is frequently used in recent statistical reports published by Soviet Authorities. The Region of Simple Soil is given as 790,000 square miles with 28,967,000 inhabitants, and the Region of Black Soil as 400,000 square miles with 31,197,000 inhabitants without counting the Ukraine.

Various divisions have been proposed by Russian economic authors based upon the predominant industries and the different agricultural methods ; an interesting discussion of the problem with a definite economic division is found in the report of the "Sub-Commission on the Division in Regions of the General Commission of Planning (Obstche Planovaia Kommissia)", under the Board of Labour and Defence, Moscow, 1921.

Neither of these divisions is suited for epidemiological purposes, and a somewhat different grouping has been adopted for this series of publications. A few changes appearing desirable, the composition of the regions now adopted is given in detail below. It should be noted that these regions have no historical basis but are arranged primarily with reference to the prevalence of various diseases and also to the value of the official morbidity statistics conforming these considerations, as far as possible, to geographical conceptions.

| Region or Government | Population in thousands |
|---|---|
| *Western Region :* | |
| City of Petrograd | 706 |
| Gov. of Petrograd | 894 |
| ,, Novgorod | 906 |
| ,, Pskov | 1,250 |
| ,, Vitebsk | 1,353 |
| Rep. of White Russia | 1,634 |
| Gov. of Gomel | 2,375 |
| Total | 9,118 |
| *Northern Region :* | |
| Murman Territory | 19 |
| Karelian Community | 144 |
| Gov. of Arkhangel | 361 |
| ,, Olonetz | 217 |
| ,, Cherepovetz | 632 |
| ,, Vologda | 913 |
| ,, Severodvinsk | 632 |
| Zirian Region | 187 |
| Gov. of Kostroma | 1,204 |
| Total | 4,310 |

| Region or Government | Population in thousands |
|---|---|
| *Central Region :* | |
| Gov. of Rybinsk | 771 |
| ,, Yaroslavl | 651 |
| ,, Ivanovo-Vosniessensk | 660 |
| ,, Vladimir | 1,288 |
| ,, Tver | 1,813 |
| ,, Smolensk | 2,026 |
| City of Moscow | 1,028 |
| Gov. of Moscow | 1,666 |
| ,, Kaluga | 955 |
| ,, Tula | 1,725 |
| ,, Riazan | 2,158 |
| Total | 14,741 |
| *South-Central Region :* | |
| Gov. of Briansk | 983 |
| ,, Orel | 1,515 |
| ,, Tambov | 3,395 |
| ,, Voronezh | 3,063 |
| ,, Kursk | 2,713 |
| Total | 11,668 |

*(Continued)*

| Region or Government | Population in thousands |
|---|---|
| *The Ukraine:* | |
| Dist. of Volhynia | 1,712 |
| ,, Podolia | 2,725 |
| ,, Kiev | 3,598 |
| ,, Chernigov | 1,842 |
| ,, Kremenchug | 1,799 |
| ,, Poltava | 2,267 |
| ,, Kharkov | 2,478 |
| ,, Odessa | 1,911 |
| ,, Nicolaiev | 1,365 |
| ,, Ekaterinoslav | 1,736 |
| ,, Zaporozhe | 1,318 |
| ,, Donetz | 3,318 |
| Total | 26,070 |
| *Southern Region :* | |
| Gov. of Tzaritzin | 1,201 |
| ,, Astrakhan | 387 |
| Kalmuk Region | 126 |
| Don Region | 1,544 |
| Gov. of Kubano-Chernomorsk | 2,930 |
| ,, Stavropol | 1,175 |
| Terek | 393 |
| Mountain Republics | 808 |
| Daghestan Republic | 798 |
| Total | 9,362 |
| *Transcaucasia :* | |
| Rep. of Georgia | 2,372 |
| Rep. of Azerbeidjan | 2,097 |
| Armenia | 1,214 |
| Total | 5,683 |
| *Crimea* | 762 |
| *Middle Volga Region :* | |
| Gov. of Nijni-Novgorod | 1,833 |
| ,, Mariskaia Region | 300 |
| Chuvach Region | 758 |
| Tartar Republic | 2,852 |
| Gov. of Simbirsk | 1,657 |
| ,, Penza | 1,745 |
| ,, Saratov | 3,063 |
| ,, Samara | 2,820 |
| German Communities | 454 |
| Total | 15,483 |
| *Eastern Region :* | |
| Gov. of Viatka | 2,052 |
| Votyak Territory | 685 |
| Gov. of Perm | 1,779 |
| ,, Ekaterinburg | 1,949 |
| ,, Tiumen | 1,177 |
| ,, Cheliabinsk | 1,344 |
| Bachkir Republic | 1,268 |
| Gov. of Ufa | 2,009 |
| Total | 12,264 |
| *Kirghiz Republic* | 5,059 |
| *Turkestan Republic* | 7,202 |
| *Siberia* | 8,080 |
| *Republic of Extreme Orient* | 1,812 |
| RUSSIA, Total | 131,616 |

# STATISTICAL TABLES
# OF THE INCIDENCE OF EPIDEMIC DISEASES
# IN EASTERN AND CENTRAL EUROPE
# MAY - DECEMBER 1922.

TABLE No. 1.

## Cases of Typhus notified in Central and Eastern Europe, 1922.

*Note:* The figures in *italics* denote the number of deaths, those in ordinary type denote the number of cases.

| Country or Region | Population in thousands | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total Jan.-Dec. |
|---|---|---|---|---|---|---|---|---|---|---|
| Germany | 59182 | 27 | 22 | 15 | 3 | 2 | 2 | 0 | 8 | 386 |
| Czechoslovakia | 13596 | 27 | 16 | 2 | 5 | 0 | 1 | 3 | 26 | 417 |
| | | *4* | *3* | *1* | *1* | *1* | *0* | *0* | *0* | *33* |
| Austria | 6420 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 23 |
| | | *1* | *1* | *1* | *1* | *0* | *0* | *0* | *0* | *5* |
| Hungary | 7841 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | — | 17 |
| | | *0* | *0* | *0* | *0* | *0* | *0* | *0* | — | *3* |
| Kingdom of the Serbs, Croats and Slovenes | 12017 | — | — | — | 1 | 1 | 6 | 6 | — | 92 |
| Bulgaria | 4861 | 86 | 39 | 13 | 2 | 4 | 3 | 25 | 41 | 414 |
| | | *8* | *12* | *4* | *4* | *0* | *0* | *4* | *2* | *65* |
| Constantinople | 1300 | 35 | 19 | 18 | 17 | 6 | 5 | 13 | 10 | 195 |
| | | *2* | *0* | *2* | *2* | *1* | *0* | *0* | *0* | *8* |
| Finland | 3332 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Esthonia | 1750 | 16 | 13 | 7 | 8 | 1 | 0 | 1 | 5 | 163 |
| Latvia | 1728 | 249 | 111 | 48 | 26 | 19 | 19 | 26 | 29 | 1480 |
| Lithuania | 2700 | 492 | 164 | 61 | 53 | 20 | 30 | 63 | 77 | 3409 |
| | | *24* | *17* | *8* | *0* | *0* | *2* | *4* | *7* | *226* |
| Danzig | 351 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *1* |
| Poland: | | | | | | | | | | |
| Western Zone | 4038 | 11 | 2 | 9 | 7 | 5 | 3 | 4 | — | 90 |
| | | *1* | *1* | *0* | *2* | *1* | *0* | *1* | — | *9* |
| West Central Zone | 6780 | 479 | 247 | 73 | 39 | 33 | 58 | 103 | — | 2713 |
| | | *41* | *29* | *7* | *6* | *5* | *3* | *10* | — | *285* |
| East Central Zone | 9191 | 1688 | 1058 | 429 | 272 | 162 | 185 | 277 | — | 12182 |
| | | *155* | *97* | *53* | *30* | *16* | *24* | *20* | — | *1164* |
| Eastern Zone | 6866 | 3641 | 1542 | 709 | 436 | 261 | 269 | 516 | — | 24955 |
| | | *193* | *55* | *30* | *20* | *19* | *12* | *31* | — | *1535* |
| Poland, Total | 26875 | 5819 | 2849 | 1220 | 754 | 461 | 515 | 900 | — | 39940 |
| | | *390* | *182* | *90* | *58* | *41* | *39* | *62* | — | *2993* |
| Russia: | | | | | | | | | | |
| Western Region | 9118 | 7703 | 4082 | 1923 | 1083 | 614 | 595 | 297 | 75 | 50991 |
| Northern Region | 4310 | 4183 | 4729 | 2107 | 1108 | 909 | 768 | 1437 | 419 | 30849 |
| Central Region | 14741 | 24516 | 13469 | 5508 | 3439 | 1500 | 1630 | 2151 | 1071 | 150835 |
| South Central Region | 11668 | 13236 | 6239 | 3653 | 2054 | 1494 | 1361 | 1420 | 242 | 73442 |
| The Ukraine | 26070 | 63766 | 35926 | 17262 | 6864 | 4256 | 3412 | — | — | 317917 |
| Crimea | 762 | 4483 | 4181 | 1170 | 463 | 160 | 106 | 113 | 27 | 15558 |
| Southern Region | 9363 | 7574 | 2038 | 1966 | 1026 | 439 | 421 | 760 | 191 | 47232 |
| Middle Volga Region | 15483 | 32360 | 16469 | 7249 | 3672 | 2043 | 1036 | 1691 | 713 | 216780 |
| Eastern Region | 12264 | 38405 | 23256 | 13360 | 8423 | 5874 | 6223 | 7430 | 1057 | 209205 [1] |
| Siberia | 9258 | — | — | — | — | — | — | — | — | 39815 † |
| Kirghiz Republic | 5059 | 2209 | 1482 | 278 | 203 | 110 | 85 | 45 | — | 24412 |
| Turkestan | 7202 | 1918 | 1253 | 375 | 882 | 87 | 28 | 123 | 44 | 27106 |
| Railways | — | 19113 | 11060 | 4821 | 1589 | 825 | — | — | — | 137946 [2] |
| Waterways | — | 4383 | 1255 | 352 | 234 | 142 | 113 | — | — | 21865 |
| Red Army, Navy and Prisons | — | 3024 | 446 | 251 | 145 | 62 | — | — | — | 37309 [3] |
| Russia, Total | 125295 | 226873 | 125885 | 60275 | 31185 | 18515 | 15778 | 15467 | 3839* | 1401262 |

*Note:* No data are available for Roumania or Greece. For January-April, see *Epidemiological Intelligence* No. 4, pages 10-11.

* Incomplete data for two weeks only. † January to April.

[1] Including 7,211 cases from January-July, not specified in Bachkir Republic.
[2] Including 15,812 cases period unstated.
[3] Including 7.739 cases, period unstated, in the Red Army.

TABLE No. 2.

## Cases of Relapsing Fever notified in Central and Eastern Europe, 1922.

*Note:* The figures in *italics* denote the number of deaths, those in ordinary type denote the number of cases.

| Country or Region | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total Jan.-Dec |
|---|---|---|---|---|---|---|---|---|---|
| GERMANY | 1 | 3 | 3 | 10 | 0 | 0 | 0 | 3 | 31 |
| CZECHOSLOVAKIA | 14 | 4 | 7 | 1 | 1 | 0 | 0 | 0 | 35 |
| | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| AUSTRIA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | — | 0 |
| HUNGARY | 0 | 0 | 0 | 0 | 0 | 0 | 0 | — | 0 |
| KINGDOM OF THE SERBS, CROATS AND SLOVENES | — | — | — | 4 | 0 | 1 | 0 | — | 5 |
| BULGARIA | 0 | 0 | 0 | 0 | 0 | — | — | — | 0 |
| CONSTANTINOPLE | — | — | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| FINLAND | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| ESTHONIA | 0 | 8 | 11 | 2 | 6 | 5 | 2 | 3 | 91 |
| LATVIA | 12 | 16 | 14 | 7 | 4 | 4 | 3 | 1 | 116 |
| LITHUANIA | 27 | 16 | 29 | 6 | 2 | 10 | 13 | 9 | 910 |
| | *0* | *1* | *0* | *0* | *0* | *0* | *0* | *0* | *24* |
| DANZIG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| POLAND: | | | | | | | | | |
| Western Zone | 0 | 1 | 6 | 1 | 0 | 0 | 5 | — | 16 |
| | *0* | *0* | *1* | *0* | *0* | *0* | *0* | — | *1* |
| West Central Zone | 26 | 10 | 1 | 6 | 2 | 3 | 0 | — | 202 |
| | *2* | *0* | *0* | *0* | *0* | *0* | *0* | — | *3* |
| East Central Zone | 470 | 428 | 283 | 252 | 128 | 76 | 111 | — | 7048 |
| | *26* | *19* | *18* | *9* | *4* | *3* | *6* | — | *336* |
| Eastern Zone | 3070 | 2072 | 1431 | 1275 | 694 | 646 | 742 | — | 32364 |
| | *60* | *37* | *43* | *25* | *22* | *13* | *23* | — | *1061* |
| Poland, Total | 3566 | 2511 | 1721 | 1534 | 824 | 725 | 858 | — | 39630 |
| | *88* | *56* | *62* | *34* | *26* | *16* | *29* | — | *1401* |
| RUSSIA: | | | | | | | | | |
| Western Region | 3485 | 2841 | 2541 | 1580 | 1225 | 1099 | 314 | 25 | 36097 |
| Northern Region | 1144 | 1592 | 1682 | 887 | 655 | 450 | 669 | 315 | 12673 |
| Central Region | 11525 | 9839 | 6227 | 5575 | 3083 | 2607 | 2680 | 1272 | 94984 |
| South-Central Region | 16063 | 8941 | 8012 | 5752 | 3620 | 4106 | 3472 | 411 | 107819 |
| The Ukraine | 63214 | 54586 | 44471 | 27371 | 18231 | 14861 | — | — | 405440 |
| Crimea | 1966 | 1521 | 970 | 632 | 234 | 161 | 116 | 33 | 8089 |
| Southern Region | 11332 | 5421 | 6630 | 4598 | 2379 | 1723 | 2172 | 886 | 80214 |
| Middle Volga Region | 19071 | 13438 | 9996 | 10142 | 5054 | 1993 | 1994 | 150 | 150751 |
| Eastern Region | 20085 | 19590 | 17708 | 20143 | 13222 | 9622 | 10715 | 1528 | 185332 [1] |
| Siberia | — | — | — | — | — | — | — | — | 36125 * |
| Kirghiz Republic | 4130 | 2985 | 1751 | 1956 | 1236 | 605 | 332 | — | 57611 |
| Turkestan | 2060 | 1561 | 563 | 1404 | 215 | 133 | 358 | 117 | 27396 |
| Railways | 15874 | 13319 | 10344 | 5525 | 2893 | — | — | — | 133274 [2] |
| Waterways | 1549 | 877 | 528 | 718 | 432 | 211 | 45 | — | 10783 |
| Red Army, Navy and Prisons | 6098 | 1985 | 780 | 776 | 269 | — | — | — | 89410 [3] |
| Russia, Total | 177586 | 138496 | 112203 | 87059 | 52748 | 37571 | 22867 | 4737† | 1435998 |

*Note:* No data are available for Roumania or Greece. For January-April, see *Epidemiological Intelligence* No. 4, pages 12 and 13.

* January-April. † Incomplete data for two weeks only.

[1] Including 14,681 cases from January to July, not specified, in Bachkir Republic.
[2] Including 13,700 cases, period unstated.
[3] Including 15,732 cases, period unstated, in the Red Army.

TABLE No. 3.

## Cases of Cholera notified in Eastern Europe, 1922.

| Government or Region | Jan. to April | May | June | July | Aug. | Sept. | Period not stated | Total |
|---|---|---|---|---|---|---|---|---|
| POLAND | 1 | 0 | 8 | 41 | 71 | 0 | — | 119 |
| ROUMANIA | 0 | 0 | 0 | 18 | 0 | 0 | — | 18 |
| RUSSIA: | | | | | | | | |
| *Western Region :* | | | | | | | | |
| City of Petrograd | 0 | 1 | 0 | 0 | 0 | 0 | — | 1 |
| Gov. of Petrograd | 0 | 0 | 0 | 0 | 1 | 1 | — | 2 |
| Vitebsk | 2 | 0 | 0 | 38 | 78 | 3 | 6 | 127 |
| White Russia | 0 | 0 | 0 | 18 | 0 | 0 | — | 18 |
| Gomel | 0 | 21 | 10 | 13 | 0 | 1 | — | 45 |
| Total | 2 | 22 | 10 | 69 | 79 | 5 | — | 187 |
| *Northern Region :* | | | | | | | | |
| Gov. of Arkhangel | 0 | 0 | 0 | 0 | 1 | 81 [1] | — | 82 |
| » Cherepovets | 0 | 0 | 1 | 0 | 0 | 0 | — | 1 |
| » Vologda | 0 | 0 | 1 | 5 | 138 | 0 | — | 144 |
| » Severodvinsk | 0 | 0 | 0 | 0 | 11 | 0 | — | 11 |
| » Kostroma | 0 | 0 | 1 | 19 | 1 | 0 | — | 21 |
| Total | 0 | 0 | 3 | 24 | 151 | 81 | — | 259 |
| *Central Region :* | | | | | | | | |
| Gov. of Rybinsk | 0 | 2 | 0 | 1 | 4 | 0 | — | 7 |
| » Yaroslavl | 0 | 0 | 0 | 17 | 9 | 0 | — | 26 |
| » Ivanovo-Vozniessensk | 0 | 0 | 0 | 2 | 0 | 0 | — | 2 |
| » Tver | 0 | 0 | 0 | 4 | 0 | — | — | 4 |
| » Smolensk | 0 | 0 | 2 | 9 | 5 | 1 | — | 17 |
| City of Moscow | 11 | 46 | 35 | 98 | 95 | 16 | — | 301 |
| Gov. of Moscow | 0 | 18 | 5 | 18 | 11 | 0 | — | 52 |
| » Tula | 7 | 20 | 2 | 0 | 0 | 0 | — | 29 |
| » Ryazan | 2 | 11 | 5 | 41 | 85 | 49 | — | 193 |
| Total | 20 | 97 | 49 | 190 | 209 | 66 | — | 631 |
| *South-Central Region :* | | | | | | | | |
| Gov. of Bryansk | 8 | 0 | 0 | 0 | 0 | 0 | — | 8 |
| » Orel | 15 | 2 | 7 | 50 | 34 | 0 | — | 108 |
| » Tambov | 57 | 13 | 1 | 41 | 14 | 0 | — | 126 |
| » Voronezh | 131 | 65 | 56 | 91 | 0 | 0 | — | 343 |
| » Kursk | 163 | 103 | 115 | 405 | 268 | 0 | 28 | 1082 |
| Total | 374 | 183 | 179 | 587 | 316 | 0 | — | 1639 |
| *The Ukraine:* | | | | | | | | |
| District of Volhynia | 127 | 7 | 85 | 109 | 20 | 1 | 0 | 349 |
| » Podolia | 1 | 54 | 87 | 172 | 80 | 0 | 9 | 403 |
| » Kiev | 416 | 87 | 168 | 480 | 163 | 12 | 378 | 1704 |
| » Chernigov | 43 | 71 | 91 | 205 | 308 | 36 | 0 | 754 |
| » Kremenchug | 78 | 220 | 259 | 825 | 92 | 1 | 16 | 1491 |
| » Poltava | 926 | 354 | 211 | 531 | 112 | 10 | 0 | 2144 |
| » Kharkov | 529 | 218 | 417 | 1381 | 241 | 8 | 112 | 2906 |
| » Odessa | 52 | 2664 | 3465 | 7680 | 1534 | 16 | 0 | 15411 |
| » Nicolaiev | 242 | 494 | 984 | 3092 | 67 | 0 | 629 | 5508 |
| » Ekaterinoslavl | 153 | 132 | 316 | 2025 | 541 | 6 | 0 | 3173 |
| » Zaporozhe | 34 | 891 | 875 | 3131 | 223 | 0 | 0 | 5154 |
| » Donetz | 89 | 418 | 860 | 2421 | 697 | 29 | 0 | 4514 |
| Total | 2690 | 5610 | 7818 | 22052 | 4078 | 119 | 1144 | 43511 |

[1] Including first week of October.

TABLE No. 3 *(continued)*.

## Cases of Cholera notified in Eastern Europe, 1922.

| Government or Region | Jan. to April | May | June | July | Aug. | Sept. | Period not stated | Total |
|---|---|---|---|---|---|---|---|---|
| RUSSIA *(continued)*: | | | | | | | | |
| *Crimea* | 0 | 228 | 1153 | 1429 | 561 | — | — | 3371 |
| *Middle Volga Region*: | | | | | | | | |
| Gov. of Nijni-Novgorod | 0 | 6 | 1 | 93 | 92 | 0 | — | 192 |
| Region of Mariskaia | 0 | 0 | 1 | 0 | 2 | 0 | — | 3 |
| Chuvach Republic | 4 | 0 | 0 | 5 | 2 | 0 | — | 11 |
| Tartar Republic | 0 | 1 | 2 | 0 | 88 | 0 | — | 91 |
| Gov. of Simbirsk | 12 | 3 | 32 | 90 | 9 | 0 | — | 146 |
| » Penza | 30 | 44 | 46 | 171 | 33 | 0 | — | 324 |
| » Saratov | 14 | 12 | 28 | 210 | 86 | 0 | — | 350 |
| » Samara | 127 | 27 | 53 | 61 | 53 | 0 | — | 321 |
| German Communities | 0 | 0 | 0 | 5 | 0 | 0 | — | 5 |
| Total | 187 | 93 | 163 | 635 | 365 | 0 | — | 1443 |
| *Southern Region*: | | | | | | | | |
| Tzaritzin | 38 | 32 | 155 | 558 | 319 | 1 | — | 1103 |
| Gov. of Astrakhan | 11 | 81 | 1018 | 221 | 16 | 0 | — | 1347 |
| Kalmuk Republic | 0 | 7 | 9 | 141 | 0 | 0 | — | 157 |
| Region of Don | 381 | 341 | 610 | 1127 | 117 | 8 | — | 2584 |
| Gov. of Kubano-Chernomorsk | 178 | 522 | 1590 | 1883 | 1145 | 185 | — | 5503 |
| » Stavropol | 70 | 157 | 191 | 164 | 13 | 0 | — | 595 |
| » Terek | 14 | 184 | 193 | 141 | 43 | 0 | — | 575 |
| Cherkasse Republic | 0 | 2 | 9 | 48 | 41 | 11 | — | 111 |
| Gorskaia Republic | 45 | 192 | 127 | 97 | 40 | 3 | — | 504 |
| Republic of Daghestan | 10 | 32 | 59 | 32 | 4 | 37 | — | 174 |
| Republic of Azerbeidjan | 39 | 61 | 165 | 108 | 51 | 0 | — | 424 |
| Total | 786 | 1611 | 4126 | 4520 | 1789 | 245 | — | 13077 |
| *Eastern Region*: | | | | | | | | |
| Gov. of Viatka | 0 | 0 | 1 | 16 | 35 | 5 | — | 57 |
| Votyak Region | 0 | 0 | 0 | 135 | 85 | 0 | — | 220 |
| Gov. of Perm | 0 | 11 | 11 | 83 | 67 | 5 | — | 177 |
| » Ekaterinburg | 16 | 74 | 124 | 235 | 450 | 19 | — | 918 |
| » Tiumen | 0 | 0 | 15 | 108 | 287 | 5 | 19 | 434 |
| » Cheliabinsk | 3 | 44 | 66 | 23 | 9 | 0 | — | 145 |
| Bachkir Republic | 0 | 3 | 2 | 123 | 147 | 31 | — | 306 |
| Gov. of Ufa | 173 | 107 | 134 | 47 | 0 | 0 | — | 461 |
| Total | 192 | 239 | 353 | 770 | 1080 | 65 | — | 2699 |
| *Kirghiz Republic* | 562 | 65 | 296 | 675 | 429 | 0 | 26 | 2053 |
| *Turkestan Republic* | 166 | 189 | 407 | 692 | 964 | 124 [1] | 65 | 2607 |
| *Siberia* | 25 | 106 | — | — | — | — | 9177 | 9308 |
| Railways | 735 | 697 | 821 | 2064 | 307 | — | 160 | 4784 |
| Waterways | 0 | 39 | 4 | 6 | 6 | 7 [1] | 535 | 595 |
| Red Army | 510 | 79 | 251 | 77 | — | — | 422 | 1339 |
| Prisons | 4 | 0 | 4 | 8 | 16 | 0 | — | 32 |
| Russia, Total | 6253 | 9258 | 15637 | 33798 | 10318 | 712 | 11582 [2] | 87588 |

*Note:* No case of cholera has been notified in the governments of Novgorod, Pskov, Murman, Olonetz, Vladimir and Kaluga, nor in the Zirian or Karelian Regions.

No case of cholera has been observed in any of the countries of Central or Eastern Europe not mentioned above. For details of data for January to April, see *Epidemiological Intelligence* No. 4, pages 8 and 9.

[1] Including first week of October.
[2] Of which 108 in October, government not stated.

TABLE No. 4.

## Cases of Dysentery notified in Central and Eastern Europe, 1922.

*Note:* The figures in *italics* denote the number of deaths, those in ordinary type the number of cases.

| Country or Region | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total Jan.-Dec. |
|---|---|---|---|---|---|---|---|---|---|---|
| Switzerland | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 5 |
| Germany | 231 | 430 | 427 | 548 | 1062 | 842 | 381 | 234 | 154 | 5036 |
| | *29* | *36* | *32* | *38* | *61* | *49* | *44* | *34* | *21* | *398* |
| Czechoslovakia | 51 | 46 | 65 | 121 | 172 | 383 | 177 | 44 | 44 | 1315 |
| | *2* | *5* | *6* | *5* | *30* | *44* | *35* | *3* | *4* | *142* |
| Austria | 85 | 99 | 110 | 167 | 264 | 133 | 42 | 40 | — | 1136 |
| | *18* | *19* | *19* | *24* | *34* | *37* | *8* | *3* | — | *217* |
| Hungary | 44 | 43 | 76 | 414 | 940 | 510 | 206 | 67 | — | 2425 |
| | *2* | *4* | *11* | *35* | *138* | *77* | *41* | *9* | — | *324* |
| Kingdom of the Serbs, Croats and Slovenes | — | — | — | — | 878 | 624 | 290 | 166 | — | 1958 [1] |
| | — | — | — | — | *107* | *96* | *47* | *29* | — | *279* |
| Bulgaria | 2 | 8 | 36 | 0 | 0 | 0 | 0 | — | — | 84 |
| Constantinople | *4* | *2* | *1* | *3* | *3* | *2* | *1* | *2* | — | *32* |
| Finland | 0 | 9 | 5 | 22 | 37 | 56 | 43 | 16 | 12 | 209 |
| Esthonia | 0 | 1 | 5 | 21 | 150 | 93 | 17 | 12 | 8 | 329 |
| Latvia | 4 | 9 | 24 | 137 | 397 | 246 | 70 | 16 | 2 | 913 |
| Lithuania | 4 | 4 | 20 | 97 | 145 | 43 | 6 | 5 | 4 | 356 |
| | *0* | *0* | *0* | *3* | *5* | *1* | *0* | *0* | *0* | *12* |
| Danzig | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 5 |
| Poland : | | | | | | | | | | |
| Western Zone | 19 | 48 | 61 | 191 | 668 | 635 | 151 | 53 | — | 1893 |
| | *2* | *5* | *1* | *14* | *56* | *64* | *20* | *7* | — | *175* |
| West-Central Zone | 20 | 45 | 62 | 379 | 934 | 660 | 130 | 39 | — | 2359 |
| | *5* | *7* | *16* | *54* | *168* | *156* | *60* | *8* | — | *486* |
| East-Central Zone | 23 | 32 | 55 | 257 | 1420 | 774 | 225 | 64 | — | 3001 |
| | *3* | *9* | *10* | *34* | *263* | *191* | *44* | *9* | — | *599* |
| Eastern Zone | 79 | 114 | 129 | 810 | 3554 | 1474 | 357 | 110 | — | 6990 |
| | *9* | *2* | *7* | *40* | *210* | *107* | *33* | *3* | — | *444* |
| Poland, Total | 141 | 239 | 307 | 1637 | 6576 | 3543 | 863 | 266 | — | 14243 |
| | *19* | *23* | *34* | *142* | *697* | *518* | *157* | *27* | — | *1704* |
| Russia (without Ukraine) | 7539 | 3271 | — | — | — | — | — | — | — | 37772 [2] |
| The Ukraine | 3520 | 4626 | 4465 | 5079 | 7736 | 4735 | 2628 | — | — | 36591 |

*Note:* No data are available for Roumania or Greece. Recent data have not been received for Russia. For January to March, see *Epidemiological Intelligence* No. 4, pages 19 and 20.

[1] Includes the months of August to November only.
[2] Janury-May.

TABLE No. 5.

## Cases of Smallpox notified in Central and Eastern Europe, 1922.

*Note:* The figures in *italics* denote the number of deaths, those in ordinary type the number of cases.

| Country or Region | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total Jan.-Dec. |
|---|---|---|---|---|---|---|---|---|---|---|
| Switzerland | 71 | 96 | 63 | 31 | 100 | 71 | 42 | 263 | 273 | 1153 |
| Germany | 105 | 55 | 16 | 13 | 1 | 4 | 1 | 1 | 1 | 207 |
| Czechoslovakia | 3 | 6 | 7 | 1 | 3 | 0 | 3 | 1 | 0 | 84 |
| | *1* | *1* | *1* | *0* | *0* | *0* | *0* | *0* | *0* | *12* |
| Austria | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3 |
| Hungary | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | — | 2 |
| Kingdom of the Serbs, Croats and Slovenes | — | — | — | — | 30 | 21 | 45 | 55 | — | 350 [1] |
| | — | — | — | — | *13* | *5* | *9* | *12* | — | *81* |
| Bulgaria | — | 1 | 0 | 0 | 0 | 0 | 6 | 4 | 2 | 18 |
| | — | *0* | *0* | *0* | *0* | *0* | *1* | *0* | *0* | *1* |
| Constantinople | — | — | — | 12 | 8 | 21 | 33 | 66 | 150 | 290 |
| | *6* | *6* | *7* | *1* | *4* | *6* | *12* | *30* | *39* | *132* |
| Finland | 9 | 11 | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 90 |
| Esthonia | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 23 |
| Latvia | 24 | 30 | 21 | 5 | 15 | 4 | 1 | 5 | 1 | 160 |
| Lithuania | 58 | 89 | 16 | 10 | 5 | 5 | 0 | 2 | 3 | 345 |
| | *5* | *6* | *1* | *1* | *0* | *0* | *0* | *1* | *0* | *30* |
| Danzig | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Poland: | | | | | | | | | | |
| Western Zone | 29 | 9 | 2 | 5 | 3 | 1 | 0 | 1 | — | 84 |
| | *2* | *1* | *0* | *1* | *0* | *2* | *0* | *0* | — | *11* |
| West Central Zone | 75 | 89 | 37 | 34 | 20 | 16 | 35 | 25 | — | 610 |
| | *14* | *19* | *6* | *6* | *3* | *2* | *12* | *6* | — | *107* |
| East Central Zone | 252 | 184 | 99 | 66 | 54 | 26 | 5 | 24 | — | 1033 |
| | *81* | *58* | *19* | *20* | *12* | *4* | *2* | *4* | — | *352* |
| Eastern Zone | 90 | 155 | 80 | 27 | 14 | 10 | 7 | 5 | — | 569 |
| | *5* | *10* | *7* | *1* | *2* | *1* | *0* | *0* | — | *40* |
| Poland, Total | 446 | 437 | 218 | 132 | 91 | 53 | 48 | 55 | — | 2296 |
| | *102* | *88* | *32* | *28* | *17* | *9* | *14* | *10* | — | *510* |
| Russia (without Ukraine) | 5837 | 5893 | 3068 | 2062 | 1244 | 860 | 977 | — | — | 36786 |
| The Ukraine | 1254 | 1595 | 856 | 694 | 312 | 143 | 325 | — | — | 9009 |

*Note:* No data are available for Roumania or Greece. For January to March, see *Epidemiological Intelligence* No. 4, pages 17 and 18.

[1] Includes months of January to March and August to November.

TABLE No. 6.

## Cases of Typhoid Fever notified in Central and Eastern Europe, 1922.

*Note:* The figures in *italics* denote the number of deaths, those in ordinary type denote the number of cases.

| Country or Region | Jan. | Feb. | March | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total Jan.-Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switzerland . . | 8 | 4 | 10 | 15 | 9 | 17 | 27 | 47 | 46 | 27 | 28 | 25 | 261 |
| Germany . . . . | 583 | 553 | 795 | 532 | 719 | 1032 | 1142 | 1403 | 1277 | 1092 | 1180 | 685 | 10993 |
| | *31* | *23* | *26* | *12* | *20* | *33* | *41* | *43* | *49* | *29* | *37* | *28* | *372* |
| Czechoslovakia . | 579 | 430 | 420 | 470 | 374 | 426 | 746 | 873 | 851 | 641 | 491 | 359 | 6360 |
| | *46* | *45* | *50* | *52* | *48* | *39* | *51* | *68* | *63* | *53* | *34* | *37* | *586* |
| Austria . . . . | 208 | 81 | 119 | 136 | 182 | 176 | 202 | 379 | 327 | 202 | 160 | — | 2172 |
| | *17* | *13* | *16* | *23* | *25* | *15* | *22* | *30* | *39* | *17* | *10* | — | *227* |
| Hungary . . . . | 362 | 128 | 124 | 266 | 288 | 181 | 357 | 874 | 1087 | 894 | 646 | — | 5207 |
| | *32* | *24* | *18* | *29* | *34* | *21* | *36* | *76* | *118* | *116* | *79* | — | *583* |
| Kingdom of Serbs, Croats, Slovenes | 223 | — | — | — | — | — | — | 482 | 545 | 659 | 495 | — | [1] 2404 |
| | — | — | — | — | — | — | — | *43* | *45* | *73* | *65* | — | *226* |
| Bulgaria . . . . | 199 | 77 | 67 | 28 | 27 | 40 | — | — | — | — | — | — | 448 |
| | *34* | *19* | *13* | — | *8* | *7* | — | — | — | — | — | — | *81* |
| Constantinople . | — | — | — | — | — | — | 139 | 353 | 136 | 89 | 32 | 16 | 765 |
| | *2* | *2* | *4* | *4* | *3* | *3* | *8* | *16* | *11* | *12* | *7* | *1* | *73* |
| Finland . . . . | 106 | 53 | 57 | 55 | 48 | 42 | 172 | 217 | 201 | 158 | 117 | 72 | 1298 |
| Esthonia . . . . | 118 | 47 | 59 | 31 | 32 | 56 | 38 | 110 | 78 | 74 | 51 | 50 | 744 |
| Latvia . . . . . | 108 | 57 | 48 | 47 | 63 | 57 | 106 | 130 | 105 | 111 | 99 | 53 | 984 |
| Lithuania . . . | 127 | 176 | 100 | 119 | 65 | 92 | 93 | 127 | 103 | 64 | 48 | 26 | 1140 |
| | *3* | *3* | *2* | *8* | *1* | *5* | *3* | *3* | *1* | *1* | *2* | *1* | *33* |
| Danzig . . . . . | 9 | 8 | 3 | 3 | 6 | 1 | 10 | 11 | 5 | 2 | 8 | 4 | 70 |
| | *1* | *2* | *0* | *1* | *2* | *0* | *1* | *0* | *1* | *1* | *3* | *0* | *12* |
| Poland: | | | | | | | | | | | | | |
| Western Zone . | 58 | 51 | 38 | 59 | 58 | 40 | 59 | 167 | 142 | 160 | 137 | — | 969 |
| | *1* | *3* | *6* | *2* | *6* | *6* | *7* | *11* | *4* | *13* | *8* | — | *67* |
| West-Cent. Zone | 518 | 479 | 483 | 304 | 375 | 261 | 274 | 659 | 848 | 763 | 642 | — | 5606 |
| | *50* | *65* | *54* | *26* | *32* | *24* | *24* | *46* | *59* | *79* | *56* | — | *515* |
| East-Cent. Zone. | 657 | 451 | 527 | 379 | 466 | 337 | 359 | 770 | 1099 | 736 | 647 | — | 6428 |
| | *66* | *58* | *54* | *52* | *40* | *30* | *26* | *54* | *73* | *69* | *61* | — | *575* |
| Eastern Zone. . | 1029 | 856 | 1038 | 681 | 733 | 393 | 371 | 526 | 582 | 497 | 410 | — | 7116 |
| | *56* | *37* | *55* | *29* | *38* | *8* | *13* | *20* | *21* | *23* | *23* | — | *323* |
| Poland, Total | 2262 | 1837 | 2086 | 1423 | 1632 | 1031 | 1063 | 2122 | 2571 | 2156 | 1836 | — | 20119 |
| | *173* | *163* | *169* | *109* | *116* | *68* | *70* | *131* | *157* | *176* | *148* | — | *1480* |
| Russia (without Ukraine). . . | 34627 | 30440 | 29573 | 18608 | 19780 | 12421 | 10345 | 15104 | 12698 | 8884 | — | — | 192480 |
| The Ukraine . . | 14706 | 14644 | 11043 | 8357 | 8833 | 5527 | 4054 | 4646 | 4559 | 5611 | — | — | 82533 |

*Note:* No data are available for Roumania or Greece.

[1] Includes the months of January and August to November.

TABLE No. 7.

## Cases of Malaria notified in Russia and Poland, January-November 1922.

| Government or Province | Jan. | Feb. | March | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Not specified | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| POLAND: | | | | | | | | | | | | | |
| Western Zone | 0 | 0 | 1 | 2 | 15 | 1 | 8 | 8 | 3 | 4 | 9 | — | 51 |
| West Central Zone | 4 | 4 | 6 | 7 | 24 | 48 | 47 | 15 | 15 | 8 | 0 | — | 178 |
| East Central Zone | 1 | 6 | 41 | 116 | 281 | 325 | 300 | 220 | 175 | 111 | 104 | — | 1680 |
| Bialystok | 10 | 24 | 17 | 19 | 43 | 53 | 47 | 26 | 23 | 19 | 13 | — | 294 |
| Vilna | — | — | — | 8 | 23 | 16 | 28 | 28 | 13 | 5 | 5 | — | 126 |
| Novogrodek | 1 | 9 | 88 | 202 | 562 | 607 | 307 | 223 | 135 | 66 | 35 | — | 2235 |
| Polesia | 14 | 31 | 372 | 511 | 1426 | 1738 | 1257 | 1232 | 380 | 186 | 97 | — | 7244 |
| Volhynia | 23 | 70 | 375 | 542 | 1151 | 813 | 995 | 763 | 289 | 193 | 195 | — | 5409 |
| Tarnopol | 0 | 1 | 0 | 1 | 1 | 1 | 2 | 1 | 2 | 4 | 2 | — | 15 |
| Poland, Total | 53 | 145 | 900 | 1408 | 3526 | 3602 | 2991 | 2516 | 1035 | 596 | 460 | — | 17232 |
| RUSSIA: | | | | | | | | | | | | | |
| *Western Region:* | | | | | | | | | | | | | |
| City of Petrograd | 4 | 7 | 26 | 42 | 89 | 72 | 36 | 25 | 10 | 17 | 14 | — | 342 |
| Novgorod | 17 | 19 | 58 | 62 | 109 | 78 | 31 | 4 | 11 | 2 | 3 | — | 394 |
| Pskov | 4 | 11 | 10 | 17 | 14 | 2 | — | 6 | — | — | — | — | 64 |
| Vitebsk | 1 | 2 | 14 | 19 | 15 | 6 | 8 | — | — | — | — | — | 65 |
| Gomel | 70 | 22 | 78 | 97 | 109 | 141 | 141 | 185 | 66 | 76 | 45 | — | 1030 |
| Total | 96 | 61 | 186 | 237 | 336 | 299 | 216 | 220 | 87 | 95 | 62 | — | 1895 |
| *Northern Region:* | | | | | | | | | | | | | |
| Karelian Communes | — | — | — | — | — | 5 | — | 1 | — | — | — | — | 6 |
| Arkhangel | 36 | 99 | 634 | 985 | 2501 | 330 | 577 | 373 | 179 | 148 | 157 | — | 6019 |
| Olonetz | — | — | 2 | 2 | — | 1 | 1 | — | — | — | — | — | 6 |
| Cherepovetz | 81 | 171 | 182 | 167 | 216 | 112 | 58 | 46 | 46 | 54 | — | — | 1133 |
| Vologda | 16 | 6 | 22 | 30 | 104 | 59 | 31 | 22 | 22 | 11 | 2 | — | 325 |
| Severodvinsk | 39 | 108 | 1164 | 2222 | 2715 | 1860 | 400 | 613 | 324 | 59 | 62 | — | 9566 |
| Zirian Region | 17 | 18 | 57 | 90 | 44 | 165 | 51 | 21 | 21 | 12 | — | — | 496 |
| Kostroma | 28 | — | — | — | — | — | — | — | — | — | 8 | — | 36 |
| Total | 217 | 402 | 2061 | 3496 | 5580 | 2532 | 1118 | 1076 | 592 | 284 | 229 | — | 17587 |

TABLE No. 7 *(continued).*

## Cases of Malaria notified in Russia and Poland, January-November 1922.

| Government or Province | Jan. | Feb. | Mareh | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Not specified | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RUSSIA *(continued)*: | | | | | | | | | | | | | |
| *Central Region*: | | | | | | | | | | | | | |
| Rybinsk | 25 | 34 | 7 | — | — | — | — | 60 | 84 | 16 | — | — | 226 |
| Yaroslavl | 7 | 8 | 3 | 8 | 22 | 7 | 17 | 2 | — | — | — | — | 74 |
| Ivanovo-Vozniessensk | 25 | 41 | 189 | 249 | 630 | 482 | 240 | 70 | — | — | — | — | 1926 |
| Vladimir | 263 | 291 | 1032 | 1362 | 3151 | 2263 | 1002 | 1935 | 1141 | 697 | 437 | — | 13574 |
| Twer | 46 | 30 | 93 | 91 | 109 | 54 | 18 | 29 | 18 | 13 | — | — | 501 |
| Smolensk | 38 | 55 | 68 | 144 | 211 | 118 | 106 | 109 | 113 | 35 | 45 | — | 1042 |
| City of Moscow | 45 | 57 | 143 | 202 | 328 | 234 | 175 | 475 | 399 | 228 | 203 | — | 2489 |
| Gov. of Moscow | 383 | 614 | 2110 | 3298 | 4812 | 5171 | 3293 | 5865 | 2077 | 389 | 621 | — | 28633 |
| Kaluga | 112 | 121 | 133 | 195 | 210 | 119 | 57 | 64 | 62 | 83 | 119 | — | 1275 |
| Tula | 17 | 22 | 37 | 59 | 80 | 33 | 55 | 8 | — | — | — | — | 311 |
| Total | 961 | 1273 | 3815 | 5608 | 9553 | 8481 | 4963 | 8619 | 3894 | 1461 | 1425 | — | 50051 |
| *South-Central Region*: | | | | | | | | | | | | | |
| Briansk | 86 | 97 | 169 | 230 | 238 | 157 | 199 | 159 | 115 | 62 | 47 | — | 1559 |
| Tambov | — | — | — | — | — | — | — | — | — | 1468 | 606 | — | 2074 |
| Voronezh | 24 | 45 | 247 | 371 | 948 | 608 | 380 | 2585 | 826 | 184 | 297 | — | 6515 |
| Kursk | 537 | 555 | 721 | 825 | 979 | 1046 | 519 | 856 | 755 | — | — | — | 6793 |
| Total | 647 | 697 | 1137 | 1426 | 2165 | 1811 | 1098 | 3600 | 1696 | 1714 | 950 | — | 16941 |
| *Crimea* | 68 | 33 | 58 | 69 | 103 | 117 | 141 | 135 | 275 | 229 | 168 | — | 1396 |
| *Southern Region*: | | | | | | | | | | | | | |
| Tzaritzin | 689 | 246 | 962 | 813 | 2178 | 2494 | 1673 | 4914 | 5096 | 2643 | 3259 | — | 24967 |
| Kalmuk Region | 41 | 145 | 343 | 447 | 208 | 326 | 337 | 606 | 423 | 261 | — | — | 3137 |
| Region of Don | — | — | — | — | — | — | 2163 | 6238 | 6651 | 1838 | 1369 | 10912 [1] | 29171 |
| Kubano-Tchernomorsk | 2985 | 2840 | 2864 | 3081 | 3701 | 3793 | 5139 | 12272 | 10734 | 5448 | — | — | 52857 |
| Stavropol | — | — | 11 | 18 | 17 | 20 | 87 | 945 | 4151 | 2164 | 569 | 102919 [2] | 110901 |
| Terek | 2 | 16 | 53 | 13 | 57 | — | 3249 | 4174 | 5828 | — | — | — | 13392 |
| Tcherkasse Republic | — | — | — | 8 | 35 | 49 | 40 | 43 | 182 | 90 | 96 | — | 543 |
| Kabardinsk | 112 | 109 | 153 | 97 | 159 | 149 | 291 | 604 | 1082 | 538 | — | — | 3294 |
| Gorskaia | — | — | — | — | — | — | 2443 | — | 945 | 1212 | — | — | 4600 |
| Daghestan | 5600 | 7700 | 11600 | 14700 | 1920 | 25150 | 3610 | 48900 | 41600 | 2500 | 13500 | — | 176780 |
| Azerbeidjan | 4123 | 2952 | 3246 | 5405 | 6842 | 7609 | 7891 | 9052 | 9215 | 10722 | 7313 | — | 74370 |
| Total | 13552 | 14008 | 19232 | 24582 | 15117 | 39590 | 26923 | 87748 | 85907 | 27416 | 26106 | 113831 | 494012 |

[1] January to June. [2] Period not stated.

TABLE No. 7 *(continued)*.

## Cases of Malaria notified in Russia and Poland, January-November 1922.

| Government or Province | Jan. | Feb. | March | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Not specified | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RUSSIA *(continued)*: | | | | | | | | | | | | | |
| *Middle Volga Region*: | | | | | | | | | | | | | |
| Chuvach Region | — | — | — | — | — | — | — | — | — | 539 | 592 | — | 1131 |
| Tartar Republic | 2337 | 2592 | *3482 | 4935 | 3250 | 4520 | 333 | 1002 | 1644 | — | — | — | 24095 |
| Simbirsk | 928 | 2470 | 5084 | 5716 | 9663 | 4756 | 4788 | 6885 | 11613 | 6573 | — | — | 58476 |
| Penza | 359 | 555 | 1265 | 1292 | 1370 | 1067 | 831 | 881 | 923 | 677 | 532 | — | 9752 |
| Saratov | — | — | — | — | — | — | — | — | — | — | — | 40000 [1] | 40000 |
| Samara | — | — | — | — | — | — | — | 10032 | 17516 | 12508 | 16028 | 56444 [1] | 112528 |
| German Communities | — | — | — | — | — | 524 | 624 | 3307 | 3868 | 2337 | 1667 | 22968 [2] | 35295 |
| Total | 3624 | 5617 | 9831 | 11943 | 14283 | 10867 | 6576 | 22107 | 35564 | 22634 | 18819 | 119412 | 281277 |
| *Eastern Region*: | | | | | | | | | | | | | |
| Viatka | 171 | 216 | 606 | 758 | 1190 | 1280 | 617 | 460 | 600 | 267 | 189 | — | 6354 |
| Votyak Territory | 350 | 240 | 762 | 1096 | 1885 | 1791 | — | — | — | — | — | — | 6124 |
| Perm | 289 | 272 | 778 | 695 | 1075 | 837 | 559 | — | — | — | — | — | 4505 |
| Ekaterinburg | 810 | 739 | 664 | 1163 | 1328 | 762 | 797 | 792 | 613 | 624 | — | — | 8292 |
| Tiumen | — | — | — | — | — | — | 7 | 3 | 6 | 63 | — | — | 79 |
| Tcheliabinsk | 191 | 155 | 276 | 255 | 194 | 115 | 122 | 132 | 138 | 104 | 96 | — | 1778 |
| Bachkir Republic | — | — | — | — | — | — | — | — | 958 | 1896 | 1796 | — | 4650 |
| Total | 1811 | 1622 | 3086 | 3967 | 5672 | 4785 | 2102 | 1387 | 2315 | 2954 | 2081 | — | 31782 |
| *Kirghiz Republic* | 2733 | 2835 | 3729 | 4741 | 2882 | 3273 | 3726 | 10018 | 6894 | 3367 | 2850 | — | 47048 |
| *Turkestan* | 12139 | 14751 | 13476 | 10515 | 8439 | 10459 | 8789 | 9795 | 10658 | 5812 | — | — | 104833 |
| *Siberia* | 40 | 32 | 51 | — | 810 | 63 | — | — | — | — | — | — | 996 |
| Railways | 2093 | 3563 | 3454 | 12530 | 5680 | 5544 | 8662 | 22648 | 12706 | — | — | — | 76880 |
| Waterways | 603 | 575 | 2938 | 2724 | 3199 | 3398 | 1825 | — | — | — | — | — | 15262 |
| RUSSIA, TOTAL | 38584 | 45469 | 63054 | 81838 | 73819 | 91219 | 66139 | 167351 | 160588 | 65966 | 52690 | 233243 | 1139960 |

[1] January to July. [2] January to June.

# STATISTICAL TABLES OF THE INCIDENCE OF CERTAIN OTHER EPIDEMIC DISEASES IN VARIOUS EUROPEAN COUNTRIES, JANUARY-DECEMBER 1922.

TABLE No. 8.

## Cases of Diphtheria notified in certain Countries of Europe, 1922.

*Note:* The figures in *italics* denote the number of deaths, those in ordinary type denote the number of cases.

| Country or Region | Jan. | Feb. | March | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total Jan.-Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| England and Wales. | 5537 | 5205 | 5605 | 3730 | 4586 | 3589 | 3646 | 3700 | 3492 | 4035 | 4995 | 4077 | 52197 |
| Holland . . . . | 534 | 426 | 528 | 356 | 417 | 364 | 292 | 290 | 320 | 275 | 472 | 431 | 4705 |
| | *50* | *48* | *19* | *27* | *23* | *24* | *12* | 8 | *16* | *19* | *29* | *34* | *309* |
| Belgium . . . . | 295 | 235 | 193 | 184 | 205 | 165 | 159 | 154 | 133 | 90 | 194 | 136 | 2143 |
| Switzerland . . | 640 | 445 | 457 | 333 | 327 | 256 | 227 | 256 | 361 | 363 | 427 | 317 | 4409 |
| Germany . . . . | 4035 | 3586 | 4144 | 2611 | 3270 | 2425 | 2289 | 2752 | 2726 | 2967 | 3941 | 3203 | 37949 |
| | *180* | *115* | *103* | *72* | *67* | *46* | *45* | *46* | *59* | *64* | *105* | *113* | *1015* |
| Czechoslovakia . | 389 | 317 | 311 | 247 | 246 | 215 | 163 | 191 | 230 | 335 | 321 | 279 | 3244 |
| | *26* | *37* | *21* | *19* | *19* | *11* | *16* | *15* | *16* | *30* | *30* | *37* | *277* |
| Austria . . . . | 307 | 221 | 291 | 210 | 271 | 171 | 169 | 187 | 179 | 235 | 257 | — | 2498 |
| | *28* | *28* | *31* | *15* | *12* | *12* | *8* | *8* | *18* | *17* | *16* | — | *199* |
| Hungary . . . . | 352 | 211 | 255 | 179 | 200 | 167 | 142 | 224 | 188 | 209 | 279 | — | 2406 |
| | *37* | *30* | *35* | *24* | *16* | *18* | *11* | *20* | *18* | *23* | *36* | — | *278* |
| Italy . . . . . | 1333 | 1035 | 1137 | 794 | 845 | 544 | 530 | 759 | 812 | 763 | 1139 | 832 | 10523 |
| Denmark . . . . | 1103 | 721 | 807 | 549 | 502 | 421 | 430 | 451 | 523 | 683 | 874 | — | 7064 |
| Norway (Cities only) | 89 | 70 | 76 | 63 | 86 | 42 | 38 | 64 | 78 | 102 | 76 | — | 784 |
| | *9* | *0* | *2* | *3* | *2* | *1* | *2* | *2* | *2* | *3* | *1* | — | *27* |
| Sweden . . . . | 812 | 572 | 563 | 449 | 529 | 499 | 383 | 449 | 560 | 554 | 654 | 524 | 6548 |
| Finland . . . . | 195 | 234 | 195 | 149 | 132 | 90 | 121 | 125 | 145 | 189 | 203 | 163 | 1941 |
| Esthonia . . . . | 52 | 63 | 51 | 43 | 29 | 36 | 24 | 52 | 30 | 45 | 35 | 62 | 522 |
| Latvia . . . . . | 60 | 96 | 85 | 51 | 66 | 44 | 43 | 43 | 60 | 49 | 51 | 50 | 698 |
| Lithuania . . . | 28 | 37 | 27 | 40 | 25 | 22 | 20 | 30 | 12 | 20 | 19 | 12 | 292 |
| | *1* | *1* | *2* | *2* | *2* | *4* | *2* | *1* | *0* | *0* | *1* | *0* | *16* |
| Danzig . . . . . | 8 | 14 | 11 | 9 | 13 | 12 | 10 | 8 | 9 | 13 | 21 | 18 | 146 |
| | *1* | *0* | *3* | *1* | *0* | *0* | *0* | *0* | *0* | *0* | *1* | *1* | *7* |
| Poland: | | | | | | | | | | | | | |
| Western Zone . | 76 | 78 | 96 | 51 | 57 | 58 | 48 | 62 | 60 | 97 | 142 | — | 825 |
| | *10* | *6* | *9* | *8* | *1* | *5* | *7* | *4* | *4* | *10* | *15* | — | *79* |
| West-Cent. Zone | 47 | 44 | 58 | 47 | 48 | 41 | 39 | 29 | 50 | 55 | 68 | — | 526 |
| | *10* | *16* | *10* | *9* | *1* | *2* | *3* | *5* | *6* | *9* | *8* | — | *79* |
| East-Cent. Zone. | 103 | 118 | 117 | 89 | 88 | 48 | 60 | 91 | 89 | 116 | 151 | — | 1070 |
| | *20* | *16* | *9* | *13* | *12* | *4* | *6* | *16* | *12* | *17* | *21* | — | *146* |
| Eastern Zone. . | 142 | 152 | 275 | 139 | 139 | 82 | 101 | 114 | 91 | 124 | 120 | — | 1479 |
| | *6* | *16* | *8* | *7* | *8* | *5* | *3* | *5* | *5* | *7* | *10* | — | *80* |
| Poland, Total | 368 | 392 | 546 | 326 | 332 | 229 | 248 | 296 | 290 | 392 | 481 | — | 3900 |
| | *46* | *54* | *36* | *37* | *22* | *16* | *19* | *30* | *27* | *43* | *54* | — | *384* |
| The Ukraine . . | 1389 | 1141 | 1169 | 1052 | 1055 | 668 | 797 | 765 | 627 | 1215 | — | — | 9878 |
| Russia (without Ukraine) | 2228 | 2416 | 2731 | 1617 | 1995 | 1481 | 1619 | 1702 | 1371 | 1062 | — | — | 18222 |

TABLE No. 9.

## Cases of Scarlet Fever notified in certain Countries of Europe, 1922.

*Note:* The figures in *italics* denote the number of deaths, those in ordinary type the number of cases.

| Country or Region | Jan. | Feb. | March | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total Jan.-Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| England and Wales . | 10689 | 9289 | 10334 | 7578 | 9945 | 6991 | 7637 | 7632 | 7352 | 9083 | 12374 | 9020 | 107924 |
| Holland . . . . | 247 | 229 | 264 | 205 | 243 | 176 | 240 | 209 | 295 | 265 | 519 | 384 | 3276 |
| | *4* | *2* | *6* | *5* | *5* | *2* | *1* | *2* | *1* | *1* | *6* | *0* | *35* |
| Belgium . . . . | 125 | 150 | 113 | 115 | 104 | 98 | 107 | 141 | 83 | 102 | 182 | 90 | 1410 |
| Switzerland . . | 691 | 239 | 248 | 137 | 143 | 110 | 103 | 101 | 103 | 91 | 185 | 119 | 2270 |
| Germany . . . . | 3125 | 2614 | 2912 | 1905 | 2235 | 1918 | 1961 | 2634 | 3131 | 3076 | 4107 | 2825 | 32443 |
| | *46* | *26* | *26* | *16* | *21* | *22* | *15* | *10* | *15* | *25* | *25* | *25* | *272* |
| Czechoslovakia . | 1222 | 801 | 803 | 704 | 791 | 933 | 685 | 597 | 764 | 1221 | 1198 | 1066 | 10785 |
| | *133* | *90* | *77* | *85* | *97* | *116* | *93* | *62* | *79* | *103* | *121* | *132* | *1208* |
| Austria . . . . | 289 | 167 | 204 | 159 | 234 | 157 | 138 | 174 | 218 | 295 | 288 | — | 2323 |
| | *11* | *12* | *5* | *5* | *7* | *2* | *3* | *4* | *1* | *2* | *7* | — | *59* |
| Hungary . . . . | 2490 | 1186 | 1141 | 896 | 895 | 802 | 714 | 839 | 1096 | 1257 | 1009 | — | 12325 |
| | *264* | *216* | *207* | *148* | *120* | *135* | *136* | *136* | *159* | *182* | *178* | — | *1881* |
| Italy . . . . . | 986 | 621 | 1013 | 697 | 811 | 779 | 651 | 825 | 896 | 768 | 1487 | 998 | 10532 |
| Denmark . . . . | 604 | 452 | 404 | 356 | 347 | 337 | 356 | 391 | 344 | 431 | 627 | — | 4649 |
| Norway (Cities only) | 60 | 91 | 74 | 84 | 66 | 73 | 42 | 47 | 64 | 92 | 119 | — | 812 |
| | *1* | *1* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *1* | *1* | — | *4* |
| Sweden . . . . | 770 | 614 | 738 | 698 | 737 | 767 | 582 | 507 | 685 | 1412 | 1928 | 1272 | 10710 |
| Finland . . . . | 117 | 117 | 129 | 96 | 84 | 83 | 61 | 42 | 35 | 48 | 89 | 89 | 990 |
| Esthonia . . . . | 70 | 51 | 69 | 38 | 42 | 20 | 4 | 38 | 38 | 38 | 93 | 93 | 594 |
| Latvia . . . . . | 206 | 188 | 183 | 155 | 127 | 127 | 88 | 46 | 60 | 120 | 128 | 170 | 1598 |
| Lithuania . . . | 88 | 67 | 56 | 30 | 28 | 31 | 32 | 11 | 21 | 48 | 17 | 8 | 437 |
| | *8* | *2* | *3* | *1* | *5* | *1* | *0* | *0* | *0* | *4* | *2* | *0* | *26* |
| Danzig . . . . . | 18 | 12 | 15 | 6 | 10 | 5 | 3 | 12 | 9 | 17 | 11 | 8 | 126 |
| | *0* | *1* | *0* | *0* | *2* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *3* |
| Poland: | | | | | | | | | | | | | |
| Western Zone . | 69 | 52 | 105 | 67 | 101 | 77 | 76 | 136 | 178 | 140 | 188 | — | 1189 |
| | *7* | *12* | *8* | *11* | *4* | *5* | *9* | *9* | *9* | *15* | *13* | — | *102* |
| West-Cent. Zone | 229 | 190 | 163 | 147 | 166 | 154 | 161 | 180 | 198 | 225 | 289 | — | 2802 |
| | *40* | *44* | *14* | *18* | *23* | *16* | *19* | *19* | *32* | *24* | *23* | — | *272* |
| East-Cent. Zone. | 907 | 572 | 630 | 412 | 474 | 373 | 486 | 474 | 605 | 618 | 642 | — | 6193 |
| | *170* | *97* | *121* | *88* | *67* | *57* | *99* | *94* | *100* | *118* | *126* | — | *1137* |
| Eastern Zone. . | 532 | 414 | 637 | 279 | 321 | 311 | 278 | 374 | 335 | 410 | 451 | — | 4342 |
| | *46* | *21* | *37* | *26* | *15* | *17* | *32* | *33* | *20* | *41* | *43* | — | *331* |
| Poland, Total | 1737 | 1228 | 1535 | 905 | 1062 | 915 | 1001 | 1164 | 1316 | 1393 | 1570 | — | $1382_6$ |
| | *263* | *174* | *180* | *143* | *109* | *95* | *159* | *155* | *161* | *198* | *205* | — | $184_2$ |
| The Ukraine . . | 2726 | 2189 | 1624 | 1395 | 1262 | 787 | 659 | 802 | 874 | 1615 | — | — | 13933 |
| Russia (without Ukraine) | 5932 | 5858 | 6230 | 2561 | 3256 | 2404 | 2285 | 2732 | 2453 | 1986 | — | — | 35697 |

TABLE No. **10.**

## Cases of Cerebro-Spinal Meningitis notified in certain Countries of Europe, 1922.

*Note:* The figures in *italics* denote the number of deaths, those in ordinary type the number of cases.

| Country or Region | Jan. | Feb. | March | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total Jan.-Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| England and Wales. | 27 | 32 | 39 | 39 | 33 | 19 | 35 | 28 | 21 | 34 | 22 | 22 | 351 |
| Holland . . . . | 14 | 13 | 7 | 13 | 19 | 12 | 9 | 8 | 3 | 8 | 8 | 18 | 132 |
| | *5* | *7* | *5* | *1* | *12* | *13* | *4* | *3* | *3* | *4* | *5* | *7* | *69* |
| Belgium . . . . | 1 | 7 | 3 | 6 | 0 | 8 | 2 | 6 | 6 | 3 | 4 | 2 | 48 |
| Switzerland . . | 2 | 6 | 3 | 4 | 0 | 0 | 1 | 4 | 2 | 0 | 3 | 5 | 30 |
| Germany . . . . | 76 | 106 | 201 | 196 | 268 | 172 | 116 | 116 | 88 | 90 | 95 | 98 | 1622 |
| | *12* | *23* | *30* | *28* | *42* | *25* | *26* | *22* | *21* | *27* | *26* | *28* | *310* |
| Czechoslovakia . | 4 | 21 | 24 | 28 | 23 | 35 | 19 | 14 | 9 | 13 | 12 | 13 | 215 |
| | *1* | *9* | *7* | *15* | *8* | *9* | *6* | *8* | *3* | *6* | *3* | *7* | *82* |
| Austria . . . . | 2 | 1 | 4 | 3 | 5 | 3 | 1 | 3 | 6 | 1 | 4 | — | 33 |
| | *2* | *0* | *5* | *3* | *7* | *3* | *4* | *3* | *4* | *0* | *0* | — | *31* |
| Hungary . . . . | 20 | 3 | 6 | 0 | 0 | 6 | 0 | 1 | 1 | 1 | 0 | — | 38 |
| | *0* | *1* | *4* | *0* | *0* | *2* | *0* | *0* | *0* | *1* | *0* | — | *8* |
| Italy . . . . . | 2 | 5 | 9 | 12 | 8 | 6 | 1 | 3 | 3 | 4 | 2 | 6 | 61 |
| Constantinople | *1* | *2* | *0* | *4* | *2* | *1* | *2* | *0* | *0* | *0* | *1* | — | *13* |
| Denmark . . . . | 2 | 8 | 11 | 7 | 16 | 7 | 8 | 6 | 1 | 7 | 7 | — | 80 |
| Norway (Cities only) | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 6 |
| | *1* | *0* | *0* | *1* | *0* | *0* | *0* | *1* | *1* | *0* | *0* | *0* | *4* |
| Sweden . . . . | 5 | 3 | 9 | 8 | 7 | 12 | 13 | 3 | 2 | 8 | 8 | 15 | 93 |
| Finland . . . . | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Esthonia . . . . | 3 | 3 | 2 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 13 |
| Latvia . . . . . | 0 | 2 | 3 | 1 | 2 | 3 | 1 | 3 | 3 | 1 | 1 | 2 | 22 |
| Lithuania . . . | — | — | 7 | 3 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 15 |
| | — | — | *2* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *2* |
| Danzig . . . . . | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Poland: | | | | | | | | | | | | | |
| Western Zone . | 1 | 3 | 5 | 4 | 9 | 1 | 25 | 24 | 7 | 3 | 9 | — | 91 |
| | *2* | *1* | *2* | *0* | *0* | *3* | *4* | *3* | *8* | *4* | *3* | — | *30* |
| West Cent. Zone | 6 | 9 | 20 | 19 | 10 | 11 | 6 | 15 | 9 | 6 | 16 | — | 127 |
| | *11* | *11* | *14* | *16* | *12* | *3* | *8* | *9* | *6* | *11* | *18* | — | *119* |
| East Cent. Zone. | 14 | 21 | 43 | 17 | 20 | 14 | 10 | 14 | 4 | 5 | 8 | — | 170 |
| | *7* | *5* | *12* | *9* | *8* | *6* | *4* | *10* | *6* | *3* | *9* | — | *79* |
| Eastern Zone. . | 6 | 4 | 22 | 9 | 17 | 9 | 8 | 4 | 5 | 7 | 3 | — | 94 |
| | *2* | *1* | *5* | *2* | *2* | *2* | *2* | *2* | *2* | *0* | *0* | — | *20* |
| Poland, Total | 27 | 37 | 90 | 49 | 56 | 35 | 49 | 57 | 25 | 21 | 36 | — | 482 |
| | *22* | *18* | *33* | *27* | *22* | *14* | *18* | *24* | *22* | *18* | *30* | — | *248* |

TABLE No. 11.

## Cases of Acute Poliomyelitis notified in certain Countries of Europe, 1922.

*Note:* The figures in *italics* denote the number of deaths, those in ordinary type the number of cases.

| Country or Region | Jan. | Feb. | March | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total Jan.-Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| England and Wales . | 26 | 15 | 17 | 13 | 17 | 12 | 23 | 42 | 58 | 49 | 60 | 17 | 349 |
| Holland . . . . | *2* | *1* | *1* | *1* | *0* | *0* | *1* | — | — | — | — | — | *6* |
| Switzerland . . | 3 | 0 | 0 | 2 | 1 | 3 | 8 | 9 | 8 | 13 | 9 | 9 | 65 |
| Austria . . . . | 0 | 0 | 1 | 0 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | — | 12 |
| Germany . . . . | 11 | 14 | 25 | 9 | 7 | 10 | 26 | 121 | 120 | 97 | 120 | 27 | 587 |
| Denmark . . . . | 4 | 8 | 1 | 4 | 3 | 2 | 3 | 12 | 10 | 6 | 4 | — | 57 |
| Norway (Cities only) | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 1 | 0 | 5 |
| | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *1* | *0* | *0* | *1* |
| Sweden . . . . | 6 | 5 | 4 | 5 | 5 | 9 | 10 | 14 | 13 | 20 | 14 | 7 | 112 |
| Finland . . . . | 8 | 4 | 1 | 6 | 1 | 0 | 9 | 2 | 2 | 1 | 4 | 0 | 38 |

TABLE No. 12.

## Cases of Encephalitis Lethargica in certain Countries of Europe, 1922.

*Note:* The figures in *italics* denote the number of deaths, those in ordinary type the number of cases.

| Country or Region | Jan. | Feb. | March | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total Jan.-Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| England and Wales . | 23 | 46 | 68 | 53 | 60 | 25 | 20 | 48 | 28 | 23 | 34 | 35 | 463 |
| Holland . . . . | *9* | *5* | *8* | *4* | *3* | *4* | *1* | — | — | — | — | — | *34* |
| Belgium . . . . | 3 | 0 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 1 | 2 | 0 | 21 |
| Switzerland . . | 7 | 5 | 14 | 13 | 3 | 1 | 1 | 2 | 1 | 4 | 6 | 5 | 62 |
| Denmark . . . . | 8 | 4 | 4 | 4 | 4 | 1 | 6 | 2 | 1 | 0 | 2 | — | 36 |
| Norway (Cities only) | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 7 |
| | *0* | *0* | *1* | *0* | *0* | *0* | *0* | *0* | *0* | *1* | *1* | *0* | *3* |
| Sweden . . . . | 14 | 8 | 16 | 6 | 13 | 7 | 4 | 19 | 5 | 5 | 19 | 45 | 161 |
| Finland . . . . | 8 | 16 | 8 | 6 | 2 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 46 |
| Latvia . . . . . | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Poland: City of Warsaw. | — | — | — | — | — | 11 | 9 | 23 | 9 | 0 | 2 | 4 | 58 |

TABLE No. 13.

## Cases of Influenza notified in certain Countries of Europe, 1922.

*Note:* The figures in *italics* denote the number of deaths, those in ordinary type the number of cases.

| Country or Region | Jan. | Feb. | March | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total Jan.-Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| England & Wales | | | | | | | | | | | | | |
| (large towns) . . | *4871* | *3036* | *849* | *394* | *260* | *96* | *86* | *71* | *79* | *147* | *314* | *232* | *10435* |
| Holland . . . . | *1677* | *1529* | *280* | *77* | *27* | *12* | *6* | — | — | — | — | — | *3608* |
| Switzerland . . | 22701 | 28999 | 7680 | 442 | 122 | 24 | 7 | 19 | 16 | 39 | 53 | 112 | 60214 |
| Germany (large towns) | *2995* | *1026* | *576* | *338* | *185* | *82* | *72* | *59* | *66* | *117* | *440* | *900* | *6856* |
| Denmark . . . . | 135017 | 70214 | 10947 | 6151 | 3852 | 1502 | 861 | 912 | 1061 | 1391 | 2191 | — | 234099 |
| Norway (Cities only) | 37405 | 9134 | 1206 | 537 | 314 | 222 | 111 | 139 | 239 | 331 | 643 | — | 50281 |
| | *108* | *65* | *3* | *2* | *1* | *1* | *1* | *0* | *0* | *1* | *1* | — | *183* |
| Sweden . . . . | 39250 | 41637 | 7224 | 1932 | 652 | 77 | 56 | 56 | 148 | 282 | 574 | 783 | 92671 |
| Finland . . . . | 14301 | 9433 | 10177 | 7148 | 2046 | 681 | 514 | 720 | 1016 | 2056 | 3352 | 3619 | 55063 |
| Latvia . . . . . | 65 | 100 | 6 | 3 | 0 | 0 | 27 | 4 | 0 | 0 | 0 | 21 | 226 |
| Constantinople . | *7* | *48* | *42* | *16* | *10* | *4* | *4* | *1* | *0* | *0* | *1* | *7* | *140* |

# ADDITIONAL RESULTS OF THE RUSSIAN CENSUS OF 1920.

The classification of the information obtained by the Russian census of 1920 and by the supplementary figures collected from those governments in which no census was taken in 1920 is gradually being completed by the Central Statistical Bureau in Moscow. In the first official statistical annuary published in Moscow in 1922, additional data are found regarding the sex distribution of the population in each government and also the age distribution in about twenty governments. Although the latter represent merely a fraction of the whole of Russia, the data are fairly representative, because they refer to districts in widely separated regions and present various points of interest, which warrant an analysis, even before the final and complete reports become available.

Direct comparison with the census returns of earlier date is difficult because of the considerable changes made by the present Administration in the administrative divisions. Up to 1917, European Russia was divided into 53 governments, not counting Finland and Poland, of which about eight have been lost since the War. European Russia was composed, in 1922, of 42 governments, 6 allied or autonomous republics (of which the Ukraine consists of 12 governments) and 11 regions with varying degrees of self-government. The boundaries of nearly all the governments have, at the same time, been changed.

The population estimates of 1914 have been distributed according to the new administrative divisions by the Central Statistical Bureau at Moscow, and it is now possible to form some opinion as to where the huge losses of population have occurred. The reported rate of increase or decrease of population in each government is illustrated on the map, page 50. It should be borne in mind, however, that the population data for 1914 are nothing but an estimate based upon the census returns of 1897 and the registers of births and deaths in each district, and due importance has probably not been attached to the influence of migration. This estimate has, it is said, been revised by the Russian Central Statistical Office, which considers that the numbers are now approximately correct.

Apart from the depopulation of the large cities, already described in previous numbers, which, in the case of Moscow and Petrograd, reaches 40 and 65 per cent. respectively, a belt, in which marked depopulation has occurred, stretches without interruption from the White Russian country in the west to Astrakhan in the south-east, with an arm running southwards across the Ukraine towards the Black Sea. This belt covers regions of great variety, thinly populated swamps and poor soils in the extreme west, well-populated districts in the centre, and steppes in the east ; the proportion of men to women in this belt is not everywhere low. In fact the deficiency of men is less marked than further to the north, which rather points towards other reasons than the military losses as a primary cause of the extreme depopulation as compared with other regions.

Several factors have evidently been active, and their effect is difficult to separate owing to unsatisfactory demographical data; there is little doubt, however, that the great epidemics, particularly of 1919 and 1920, have had a considerable influence in forming this belt of depopulation. The combined reported incidence of typhus and relapsing fever for the two years 1919-1920 reach a maximum of 206 cases per 1,000 inhabitants in the government of Orel, which is about in the centre of this belt, and where the population decreased by 16 %. In the neighbouring governments the corresponding epidemic incidence was 124 per 1,000 population in Kursk, 146 in Voronej, 148 in Tambov, 100 in Riazan, 109 in Tula, 115 in Kaluga and 81 in Gomel; the rate of incidence is distinctly lower elsewhere, ranging

from only 10 to 40 per 1,000 in the northern governments. The incidence of the two diseases exceeds 10% of the population in most governments of the Volga and Ural region, but the inevitably heavy mortality appears to have been more than counterbalanced by immigration; these regions are excluded, therefore, from the following table, which classifies the governments of Northern, Western and Central Russia according to percentage loss of population and to the reported rate of incidence of typhus and relapsing fever in the years 1919-1920.

| | *Percentage decrease of population* : | | |
|---|---|---|---|
| Epidemic Incidence | Under 5 | 5—9.9 | 10 and over |
| Under 50 . . . . . | 5 | 4 | 0 |
| 50—99 . . . . . | 3 | 3 | 4 |
| 100 and over. . . . . | 1 | 1 | 4 |

This table shows that the higher the epidemic incidence the greater the decrease of population, provided that various irregularities due to other causes such as migrations are taken into account. This can be demonstrated in various other ways; of the 25 governments here considered, the incidence of typhus and relapsing fever was less than 50 per 1,000 in nine; in these nine governments the mean intercensal decrease of the population was 3.9 %. The corresponding epidemic incidence was more than 50 per 1,000 but less than 100 in 10 governments, and the mean decrease of population was here 8.2%. In six governments where the epidemic incidence exceeded 100 per 1,000 inhabitants, the population had decreased 11.0% on the average, or, if leaving Tula, where the industries had attracted new population, out of consideration, the decrease in this group averages 12.7% [1].

A less pronounced, but still marked, loss of population is shown in all the remainder of European Russia, except in the Crimea and some districts of the Eastern Ukraine where refugees were probably numerous at the time, and also in the region of the Middle Volga and in the Kuban and Terek districts where new rural settlement may have taken place; the increase in the latter regions does not exceed a few per cent. In the Ural districts the increase of population is, on the other hand, marked and exceeds everywhere 10 per cent. A similar increase has occurred throughout Siberia. It seems that Asiatic Russia has gained at the expense of European Russia, and this movement is likely to have been intensified by the Great Famine.

The general distribution of the population had not been greatly altered up to the time of the census; its density is indicated in the different governments on the chart, page 50. The greatest density of population is in Podolia, which forms the eastern extension of Galicia, where 86 inhabitants live on each square km. (about the same density as in Bavaria and more than in France). From this centre a fairly well-populated wedge, with its base in the Ukraine, stretches in a curve north-east, gradually disappearing north-east of Moscow. The Volga region contains 30 to 40 inhabitants per square km. on the western bank, and less than 30 on the eastern bank. Further east there is a density of less than 10 unhabitants per square km. Petrograd, now on the very outskirts of the Empire, is situated in a thinly populated region.

---

[1] A more definite measure is furnished by the coefficient of correlation between the decrease of population, as shown by the census, and the reported incidence of typhus and relapsing fever, for the same 25 governments. This coefficient is found to be :

$$r = 0.548 \pm 0.094$$

The coefficient being thus six times the probable error, a definite association between the two sets of observed facts is indicated. The mathematical probability that this correlation should be due to chance is as small as 1 to 11764.

The sex distribution of the population, which is now available for the whole area where the census has been taken, is of interest in furnishing some information on the regional distribution of military losses. The men who were serving in the army at the time of the census have not been included in the returns, and allowance for this must be made; the number of men under the colours has been given by M. Mikhailovsky, Chief of the Central Statistical Bureau, as 3 millions, but they have probably not been recruited evenly from the various regions of the State.

Pronounced geographical variations of sex distribution are shown by the map on page 50; in the outlying districts and allied republics, the proportion of men is far higher than in Russia proper; in the Kirghiz Republic the men are even in excess, while in Siberia, the Caucasus, the Crimea, the Eastern Ukraine and White Russia, the sex proportion was, at the time of the census, either normal or the number of men inferior to the number of women by not more than 10 per cent. It is in Great Russia that the proportion of men is the lowest; here the deficiency of men almost everywhere exceeds 20 per cent., while in eight governments of the central region round Moscow, the men number only 72 to 75 per cent. of the women.

This deficiency of men is due to causes differing according to age. Losses in the world-war and losses in the revolutionary war were heaviest among men of 25 to 40 at the time of the census; military conscription has affected mainly younger men, while disease and lack of nutrition has influenced the mortality at all ages. A certain migration of men from the country to the towns has occurred, although it has not made good the entire loss of urban population. The distribution according to age for each sex and the proportion between the sexes at each age is given below for the 175 rural ouyezds and for the cities of the 23 governments to which our data relate.

Percentage Distribution by Ages.

| | *Males.* | | *Females.* | | *No. of men per 100 women* | |
|---|---|---|---|---|---|---|
| Ages | Urban | Rural | Urban | Rural | Urban | Rural |
| Under 5 | 9.2 | 13.4 | 7.6 | 10.7 | 100 | 100 |
| 5– 9 | 12.2 | 17.6 | 10.4 | 14.4 | 96 | 98 |
| 10–14 | 12.3 | 16.2 | 11.0 | 13.2 | 93 | 99 |
| 15–19 | 9.7 | 9.8 | 10.7 | 10.7 | 75 | 73 |
| 20–24 | 7.2 | 3.5 | 10.7 | 8.0 | 56 | 36 |
| 25–29 | 8.4 | 4.0 | 9.5 | 7.0 | 74 | 46 |
| 30–39 | 15.8 | 9.9 | 14.0 | 11.3 | 93 | 70 |
| 40–49 | 12.6 | 10.0 | 10.8 | 9.1 | 96 | 88 |
| 50–59 | 7.7 | 7.5 | 8.2 | 7.3 | 78 | 83 |
| 60 and over | 4.9 | 8.1 | 7.1 | 8.3 | 57 | 78 |
| All ages | 100.0 | 100.0 | 100.0 | 100.0 | 83 | 80 |

For Russia as a whole the proportion between the sexes is 83 males to 100 females in the towns and 80 males to 100 females in the rural districts — quite a small difference. When analysed according to age, however, the difference becomes much larger. While the proportion of male and female children in the country and urban districts is normal, the deficiency of men of 20 to 39 is far more pronounced in the rural districts than in the cities. At ages over 50, on the other hand, the proportion of men is lower in the cities than in the country, while at ages over 60 the difference, in this sense, is pronounced. This fact is somewhat difficult to explain, but it is observed consistently in all European areas of Russia, and the only exceptions are the two Siberian governments for which data are available. The proportion of old women is also a little higher in the country than in the cities.

The proportion of children is, of course, higher in the country than in the towns, as is seen from the following figures:

| Ages | *Urban* Children | Per 1000 popul. | % of C | *Rural* Children | Per 1000 popul. | % of C |
|---|---|---|---|---|---|---|
| A. Under 3 years . . . . | 292,309 | 49.7 | 72 | 1,714,623 | 75.4 | 76 |
| B. 3–5 » . . . . | 319,281 | 54.3 | 78 | 1,670,158 | 73.4 | 74 |
| C. 6–8 » . . . . | 407,602 | 69.3 | 100 | 2,258,263 | 99.3 | 100 |

The deficiency of children during the revolutionary period is even greater than here indicated, since, owing to the high mortality in early childhood in Russia, a considerable number of these children will presumably die before reaching the age of three. It seems probable that the revolution has affected the birth-rate in the cities more than in the country districts, while the reverse seems to have been the case during the Great War; the differences may have been due to a shifting of the adult population or to other conditions that cannot be ascertained from the data.

The proportion between the sexes is fairly normal and also fairly equal in town and country up to the age of 16 years. At 17 years the census shows 81 men per 100 women in the towns and 80 in the country; at the age of 18 the ratio is 63 in the towns and 64 in the rural districts. At the age of 19 the deficiency of men becomes very pronounced, probably due to military conscription, while the urban and rural ratios begin to differ; the ratios are 49 in the urban and 34 in the rural areas. While up to this age military losses can have had no material influence, they must have been very high in the following age groups, and particularly so from 25 to 39 years, which correspond roughly to the age of those who bore the brunt of the fighting during the War. The deficiency of men at these ages will be felt for the next fifty years and remain noticeable at each future census. The proportion between the sexes at the ages from 17 to 39 years is given below for those areas of the geographical divisions from which data are available.

| Ages | Male | Female | Ratio | Male | Female | Ratio |
|---|---|---|---|---|---|---|
| | *Western Region.* | | | *Northern Region.* | | |
| 17 . . . . . | 28,516 | 38,525 | 74.0 | 23,368 | 29,333 | 79.7 |
| 18 . . . . . | 20,845 | 37,645 | 55.4 | 17,629 | 27,133 | 65.0 |
| 19 . . . . . | 10,788 | 33,027 | 32.7 | 7,750 | 24,595 | 31.5 |
| 20–24 . . . . . | 42,012 | 162,453 | 25.9 | 39,560 | 115,742 | 34.2 |
| 25–29 . . . . . | 75,287 | 142,249 | 52.9 | 46,580 | 102,803 | 45.3 |
| 30–39 . . . . . | 175,705 | 218,345 | 80.5 | 122,640 | 167,053 | 73.4 |
| | *Central Region.* | | | *Eastern Region.* | | |
| 17 . . . . . | 95,631 | 126,442 | 75.6 | 48,747 | 55,594 | 87.7 |
| 18 . . . . . | 73,964 | 119,730 | 61.8 | 35,266 | 52,249 | 67.5 |
| 19 . . . . . | 34,667 | 103,837 | 33.4 | 17,466 | 44,658 | 39.1 |
| 20–24 . . . . . | 180,041 | 476,794 | 37.8 | 81,718 | 223,687 | 36.5 |
| 25–29 . . . . . | 201,643 | 413,561 | 48.8 | 98,864 | 193,783 | 51.0 |
| 30–39 . . . . . | 491,480 | 679,047 | 72.4 | 237,384 | 315,508 | 75.2 |
| | *Southern Region* | | | *Asiatic Russia.* | | |
| 17 . . . . . | 57,306 | 71,523 | 80.1 | 22,562 | 24,044 | 93.8 |
| 18 . . . . . | 44,734 | 65,845 | 67.9 | 15,102 | 23,580 | 64.0 |
| 19 . . . . . | 24,474 | 51,691 | 47.3 | 7,988 | 21,375 | 37.4 |
| 20–24 . . . . . | 116,422 | 253,039 | 46.0 | 62,016 | 100,328 | 61.8 |
| 25–29 . . . . . | 126,076 | 230,341 | 54.7 | 71,682 | 88,001 | 81.5 |
| 30–39 . . . . . | 236.483 | 338 796 | 69.8 | 132,014 | 142,365 | 92.7 |

Although the number of men has decreased far more than the number of women, even the latter have been affected by the events of the six years preceding the census; the number of female children has diminished just as much as the number of male children. The loss of population according to ages sustained by European Russia up to 1920 can be roughly shown in the following table. In this table the age distribution in the whole of Russia in 1920 is assumed to be identical with the known distribution in the previously mentioned area. The 1914 population has been arranged in the table according to the age groups shown in the 1897 census. The figures can, of course, only be considered approximate.

Population of European Russia in 1914 and 1920, estimated by Groups of Ages derived from the Census Returns of 1897 and 1920.

*Male Population*

| Ages | 1914 | 1920 | Increase or Decrease | Per cent. |
|---|---|---|---|---|
| Under 5 | 8,296,371 | 5,743,913 | — 2,552,458 | — 30.8 |
| 5– 9 | 6,667,305 | 7,528,563 | + 861,258 | + 12.9 |
| 10–14 | 6,154,850 | 7,051,433 | + 896,583 | + 14.6 |
| 15–19 | 5,313,346 | 4,486,858 | — 826,488 | — 15.6 |
| 20–29 | 8,587,661 | 4,239,117 | — 4,348,544 | — 50.6 |
| 30–39 | 6,715,853 | 5,083,271 | — 1,632,582 | — 24.3 |
| 40–49 | 5,005,873 | 4,817,179 | — 188,694 | — 3.8 |
| 50–59 | 3,544,028 | 3,472,957 | — 71,071 | — 2.0 |
| 60 and over | 3,641,125 | 3,408,727 | — 232,398 | — 6.4 |
| Unknown | 16,193 | 45,879 | + 29,686 | — |
| All ages | 53,942,605 | 45,877,897 | — 8,064,708 | — 15.0 |

*Female Population*

| Ages | 1914 | 1920 | Increase or Decrease | Per cent. |
|---|---|---|---|---|
| Under 5 | 8,236,568 | 6,535,925 | — 2,600,643 | — 31.6 |
| 5– 9 | 6,664,283 | 7,574,148 | + 909,865 | + 13.7 |
| 10–14 | 6,101,570 | 7,093,781 | + 992,211 | + 16.3 |
| 15–19 | 5,698,845 | 5,987,822 | + 288,977 | + 5.1 |
| 20–29 | 8,843,415 | 8,937,048 | + 93,633 | + 1.1 |
| 30–39 | 6,862,888 | 6,641,343 | — 221,545 | — 3.2 |
| 40–49 | 5,091,998 | 5,267,272 | + 175,274 | + 3.4 |
| 50–59 | 3,745,901 | 4,161,312 | + 415,411 | + 11.1 |
| 60 and over | 3,905,888 | 4,507,623 | + 601,735 | + 15.4 |
| Unknown | 16,554 | 50,272 | + 33,718 | — |
| All ages | 55,167,910 | 55,856,546 | + 688,636 | + 1.2 |

The table shows that the male population of European Russia has decreased by about 8 millions, while the female population has increased slightly, but it should be borne in mind that the population

would normally have increased by about 9 per cent. during this period. All age groups thus really show a decrease from the normal with the exception of children from 5 to 14 years of age and women over 50 years. The table shows that the female population has suffered the greatest loss at the ages of 30 to 39, but the effects of emigration and disease cannot be separated.

If the estimated normal increase of population of about 9 % can be accepted, there would have been an increase of approximately 9,800,000 persons; instead of this increase there is actually a decrease shown of about 4,400,000, allowing for the size of the army (3,000,000 men), whose numbers were not included in the census. The losses due to the war and revolution have been estimated by M. Mikhailowsky at about 3½ millions. Taking into account these losses, there would remain a total deficit from the expected population, had normal conditions prevailed, of something like 10½ millions. This deficit may be said to be due to three principal causes: diminished birth-rate, disease and emigration. It is impossible to estimate, without more specific data, the amount of loss which should be attributed to each of these causes.

Disease and famine have continued to reduce the population during the two years which have passed since the census, and the birth-rate has remained very low. The extensive and continued depopulation is therefore an important factor in the general economic situation.

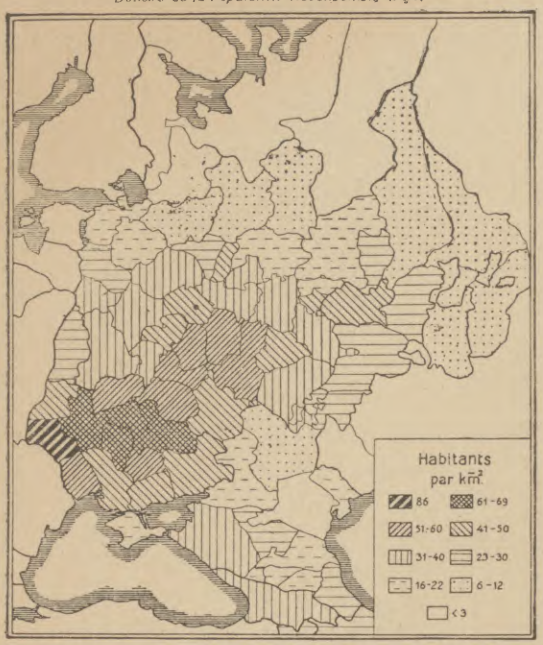
## Proportionate Increase or Decrease of the Population of Russia from 1914 to 1920 the Density of Population and the Ratio of Males to Females indicated by the Census of 1920.

| Government | Inhabitants per sq. km. | Percentage of increase or decrease | No. of men per 100 women |
|---|---|---|---|
| *Western Region:* | | | |
| City of Petrograd . . | 2,824 | —64.8 | 72.2 |
| Gov. of Petrograd. . | 21 | — 2.6 | 77.0 |
| » Novgorod . | 18 | — 0.9 | 79.5 |
| » Pskov . . . | 29 | — 6.5 | 78.5 |
| » Vitebsk . . | 34 | —18.6 | 82.6 |
| White Russian Rep. . . | 27 | —14.1 | 96.9 |
| Gov. of Gomel . . . | 38 | —14.8 | 82.8 |
| *Northern Region:* | | | |
| Murman Territory . | 0 | +46.0 | 138.5 |
| Karelian Comm. . . | 2 | — 6.1 | 80.8 |
| Gov. of Arkhangel . | 0.6 | — 0.2 | 77.6 |
| » Olonetz . . | 3 | — 7.1 | 76.0 |
| » Cherepovetz. | 10 | — 4.8 | 77.1 |
| » Vologda . . | 9 | — 2.8 | 78.5 |
| » Severodvinsk | 6 | + 1.9 | 81.4 |
| » Zirian Region | 0.7 | — 5.8 | 77.7 |
| » Kostroma . | 16 | — 5.3 | 74.6 |
| *Central Region:* | | | |
| Gov. of Rybinsk . . | 26 | + 1.2 | 71.6 |
| » Yaroslavl . . | 41 | + 3.8 | 72.8 |
| » Ivanovo-Vosniessensk | 36 | — 7.6 | 73.5 |
| » Vladimir . . | 33 | —16.7 | 74.2 |
| » Tver . . . | 33 | — 4.0 | 74.7 |
| » Smolensk . . | 35 | — 5.6 | 78.3 |
| City of Moscow . . . | 3.371 | —40.3 | 95.4 |
| Gov. of Moscow . . | 46 | — 5.3 | 72.8 |
| » Kaluga . . . | 41 | —11.0 | 72.1 |
| » Tula . . . . | 56 | — 2.3 | 82.0 |
| » Riazan . . | 51 | —16.7 | 77.8 |
| *South-Central Region:* | | | |
| Gov. of Briansk . . | 36 | — 9.0 | 83.2 |
| » Orel . . . . | 56 | —16.0 | 80.0 |
| » Tambov . . | 51 | + 2.1 | 82.1 |
| » Voronezh . . | 46 | — 9.4 | 82.2 |
| » Kursk . . . | 59 | —10.5 | 84.3 |
| *The Ukraine:* | | | |
| Dist. of Volhynia . . | 45 | — 2.9 | 78.2 |
| » Podolia . . | 86 | —16.3 | 83.2 |
| » Kiev . . . . | 68 | — 4.6 | 84.9 |
| » Chernigov . | 55 | —13.0 | 86.9 |
| *The Ukraine* (continued): | | | |
| Gov. of Kremenchug | 62 | — 9.6 | 80.5 |
| » Poltava . . | 62 | —16.6 | 91.1 |
| » Kharkov . . | 66 | — 6.0 | 89.0 |
| » Odessa . . . | 60 | — 0.3 | 88.2 |
| » Nicolaiev . | 49 | — 9.3 | 83.5 |
| » Ekaterinoslav | 57 | +11.4 | 90.6 |
| » Zaporozhe . | 48 | —19.1 | 80.1 |
| » Donetz . . . | 45 | +17.3 | 89.0 |
| *Crimea* . . . . . | 20 | +12.4 | 95.7 |
| *Middle Volga Region:* | | | |
| Gov. of Nijni-Novgorod | 36 | — 6.0 | 75.1 |
| Mariskaia Region . . | 19 | — 7.6 | 77.5 |
| Chuvach Region . . . | 44 | + 1.8 | 84.2 |
| Tartar Republic. . . | 43 | — 6.3 | 82.9 |
| Gov. of Simbirsk . . | 39 | + 0.5 | 78.1 |
| » Penza . . . | 45 | — 2.1 | 79.8 |
| » Saratov . . | 32 | + 3.4 | 81.1 |
| » Samara . . | 27 | + 5.1 | 81.6 |
| German Comm. . . . | 23 | + 3.9 | 88.6 |
| *Southern Region:* | | | |
| Gov. of Tzaritzin . . | 12 | —21.0 | 76.2 |
| » Astrakhan . | 18 | — 8.9 | 79.6 |
| Kalmuk Territory . . | 1 | —18.9 | 87.5 |
| Don Region. . . . . | 21 | — 2.8 | 79.6 |
| Kubano-Chernomorsk | 31 | + 1.6 | 85.7 |
| Stavropol. . . . . | 23 | — 4.6 | 86.3 |
| Terek . . . . . | 11 | + 3.2 | 89.9 |
| Gorskaia Republic . | 18 | +11.5 | 100.8 |
| *Eastern Region:* | | | |
| Gov. of Viatka . . . | 19 | —10.7 | 76.9 |
| Votyak Region . . . | 24 | —10.5 | 77.3 |
| Gov. of Perm . . . | 8 | — 5.9 | 77.2 |
| » Ekaterinburg | 12 | — 0.3 | 80.9 |
| » Tiumen . . | 1 | +14.7 | 88.0 |
| » Cheliabinsk . | 12 | +14.8 | 79.3 |
| Bachkir Republic . . | 12 | + 4.4 | 88.9 |
| Gov. of Ufa . . . . | 28 | + 6.1 | 87.0 |
| *Kirghiz Republic* . . . | 2 | +13.1 | — |
| *Siberia* . . . . . | 0.8 | +22.5 | — |

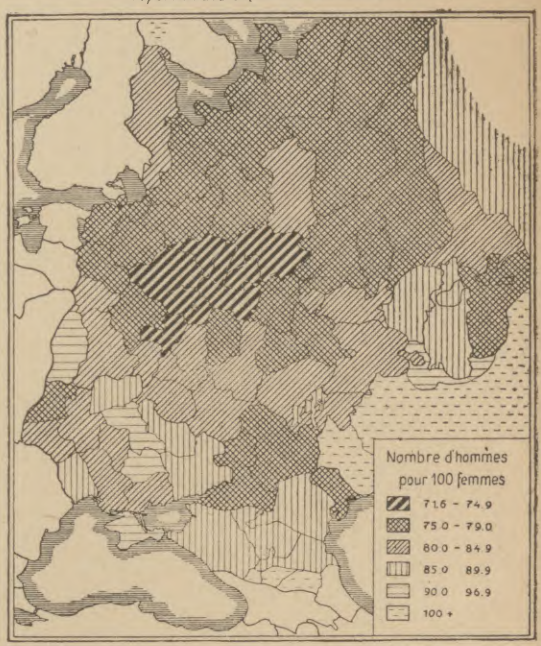
*Note:* No census has been taken in Turkestan or the Transcaucasian Republics.

# Elements of the Russian Census Statistics of 1920 and corresponding data for 1914.

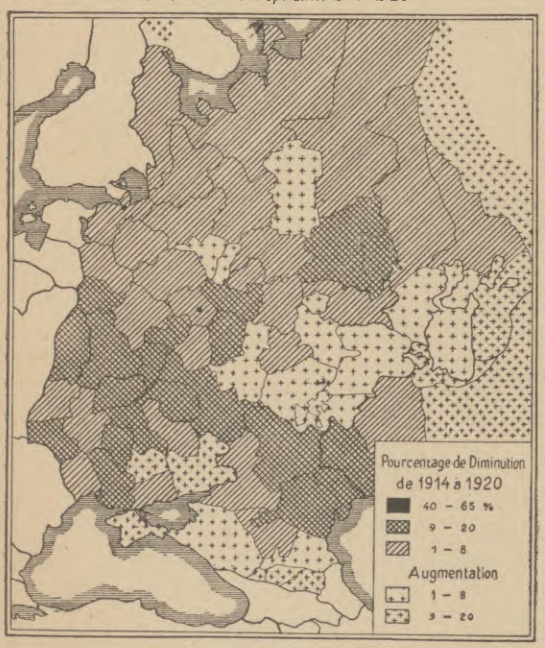
Densité de la Population - Recensement 1920.



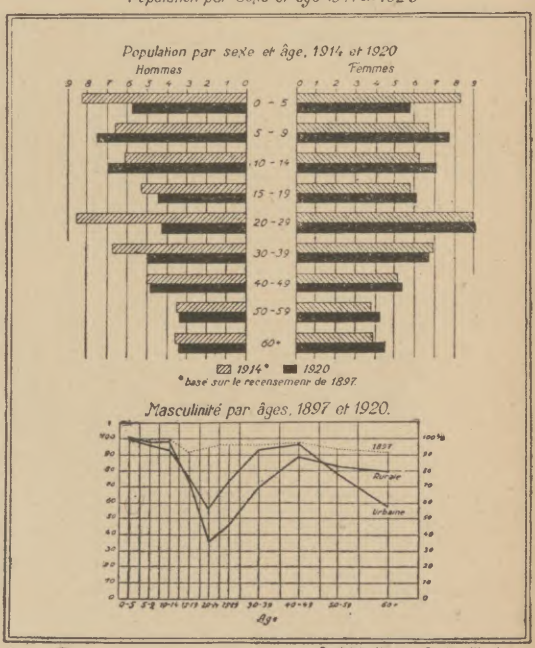

Proportion des Sexes - Recensement 1920.




Mouvement de la Population 1914 - 1920




Russie d'Europe
Population par sexe et âge 1914 et 1920




Société des Nations - Section d'Hygiène
Service des renseignements épidémiologiques

# AUTHORISED AGENTS FOR THE PUBLICATIONS OF THE LEAGUE OF NATIONS

**AUSTRALIA**
Australasian Publishing Co., Ltd., 229, Clarence Street, SYDNEY.

**AUSTRIA and GERMANY**
Rikola Verlag A. G., III, Radetzkyplatz 5, VIENNA.

**BELGIUM**
Librairie de la Lecture Universelle, 86, rue de la Montagne, BRUSSELS.

**CANADA**
William Tyrrell & Co., Ltd., 78, Yonge Street, TORONTO.

**CZECHOSLOVAKIA**
Librairie F. Topic, 11 Narodni, PRAGUE.

**DENMARK**
V. Pios Boghandel — Povl Branner, 13, Nörregade, COPENHAGEN.

**FINLAND**
Akademiska Bokhandeln, 7, Alexandersgatan, HELSINGFORS.

**FRANCE**
Imprimerie et Librairie Berger-Levrault, 136, Boulevard Saint-Germain PARIS.

**GREAT BRITAIN, DOMINIONS and COLONIES**
Constable & Co., Ltd., 10 and 12, Orange Street, LONDON, W.C.2.

**GREECE**
Eleftheroudakis & Barth, International Library. Place de la Constitution, ATHENS.

**HUNGARY**
Ferdinand Pfeifer (Zeidler Bros.), Kossuth Lajos-Utca 7 SZ., BUDAPEST, IV, KER.

**INDIA**
Oxford University Press, BOMBAY, MADRAS and CALCUTTA.

**ITALY**
Libreria Fratelli Bocca, Via Marco Minghetti, 26-29, ROME.

**JAPAN**
Maruzen Co., Ltd. (Maruzen-Kabushiki-Kaisha), 11-16, Nihonbashi Tori-Sanchome, TOKIO.

**NETHERLANDS**
Martinus Nijhoff, Boekhandelaar-Uitgever, Lange Voorhout, 9, 's GRAVENHAGE.

**NORWAY**
Olaf Norli, Universitetsgaten, 24, CHRISTIANIA.

**POLAND**
Gebethner I. Wolff, ulica Sienkiewicza 9, (Zgoda 12), WARSAW.

**SPAIN**
Editorial "Saturnino Calleja" S. A., Calle de Valencia 28, MADRID.

**SWEDEN**
C. E. Fritze, Hofbokhandel, Fredsgatan 2, STOCKHOLM.

**SWITZERLAND**
Editions Fréd. Boissonnas, 4, Quai de la Poste, GENEVA.

**UNITED STATES**
World Peace Foundation, 40, Mt. Vernon Street, BOSTON 9, MASS.

*For other countries, please address :*

**Publication Department of the League of Nations,**
GENEVA (Switzerland).

GENÈVE — IMPRIMERIE ALBERT KUNDIG