

CHAPTER I.

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THE INCIDENCE OF EPIDEMIC INFLUENZA DURING 1918-19 IN
EUROPE AND IN THE WESTERN HEMISPHERE.

BY

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INTRODUCTION.

When it was first recognised that influenza was spreading over Europe in 1918, the source of the epidemic was attributed to Spain, and the disease was, on this account, termed "the Spanish Influenza." Although the presence of epidemic influenza in Spain was recognised in the early months of 1918, it is beyond doubt that at the same time outbreaks were occurring in other European countries, including France and Germany and in the Russian war zones. It cannot, therefore, be admitted that the European epidemic began in Spain. A recent American report contains the statement that: "It seems probable that the earliest appearance of the 1918 influenza pandemic was in Eastern Europe, and that by April it was spreading in the war zones of Western Europe." It may be remembered that the 1889 epidemic was believed to have originated in China, and spread thence to Russia, where it was spoken of as the "Chinese" influenza. From Russia the disease spread westward into Europe, where it was named the "Russian" influenza. From Europe the infection was carried to North America by shipping, and there it was called the "European" influenza; and when it spread from North America across the Pacific to Japan it was known there as the "American" influenza.

As will be seen subsequently, there were a series of waves of epidemic influenza in Europe during 1918-19. The first of these, though attacking large numbers of persons in the spring and summer of 1918, caused comparatively few deaths; but the autumn wave was most serious, and gave rise to a high mortality, not only in Europe but also in America and other parts of the world. The third main wave of influenza in Europe occurred in the early part of 1919.

It has been suggested that one of the best ways of judging of the fatal ravages of epidemic influenza is to take the general mortality rate, especially when comparing the effects of the epidemic in different towns. In mild epidemics of influenza the information gained from mortality statistics is not of so much value as that obtained from the more severe outbreaks. Some statistics published in the weekly Bulletin of the City of Amsterdam give the death rates of a number of Continental towns—French, German, Austrian, Hungarian, and Swiss, showing the week in which, during the autumn

epidemic of 1918, the general mortality rate reached its highest point in each of these cities, and it is interesting to note that in places as widely apart as Paris, Berlin, Hamburg, Dresden, Breslau, Munich, and Bern the general death rate reached its maximum in the same week, namely, that ended on October 26th. The death rate in that week for Paris was 46·1 per 1,000, Berlin 41·7, Hamburg 47·7, Cologne 51·5, Leipzig 43·2, Dresden 42·2, Chemnitz 59·4, Stettin 50·7, Breslau 72·5, Nurnberg 60·8, Zurich 45·3, and Bern 34·8. It is curious that the influenza wave apparently struck Austria and Hungary most severely a week earlier, that is, if we reckon the height of the epidemic to be the time when the general mortality rate rose to its highest point. It was in the week ended October 19th (a week before Paris, Berlin, Zurich, and other* cities showed their highest death rate) that Vienna, Prague, Trieste, and Budapest reached their maximum, Vienna having for that week a death rate of 58·6, Prague 94·4, Trieste 136·5, and Budapest 58·4. It will be observed further on that it was in the week ended October 26th, 1918, that the highest general mortality rate was also recorded in the city of New York, namely, 60·2 per 1,000. It is significant that the general death rate should show its highest point during the same week in such widely separated places as Paris, Berlin, Hamburg, Breslau, and New York. Unfortunately, it has not been possible to obtain the correct mortality rates for all continental cities, so that a complete comparison of the dates of the maximum general death rates during the influenza epidemic of the autumn of 1918 cannot be made in this report. These particulars will, no doubt, be forthcoming shortly, and in that case a comparison will then be possible.

For the purposes of this report comparatively little difficulty has been experienced in obtaining, from some countries, a certain amount of statistical and other information respecting the rise and fall of epidemic influenza within their borders; but in certain other countries, and particularly those in which during 1918 hostilities were still in progress in connection with the great European war, the details received were scanty and infrequent. This was particularly the case with Russia, Belgium, Austria, and Turkey, and perhaps, to a less degree, with Germany and the Balkan States. From the Western hemisphere there were also differences in the amount of information available from the various republics. While, on the one hand, from the United States ample details were forthcoming, from the South and Central American republics very little was reported respecting the course of their influenza epidemics.

To trace the early manifestations of the pandemic in various countries has been extremely difficult, and in some instances the search has been unsuccessful. As the first wave in 1918 was very mild in character, it was probably not recognised at all in some localities, and the temporary discomforts which

were experienced were attributed at the time to other causes. In some other places the existence of an influenza epidemic was not recognised until the malady had reached its maximum. As influenza has no pathognomonic initiatory sign by which it can be recognised, and as, up to the present, no specific microbe has been identified as being invariably present in all cases of the disease, it is not easy to make a correct diagnosis, especially before there is evidence of any epidemic. So that it has to be admitted that sometimes other illnesses are diagnosed as influenza, and, on the other hand, influenza may be pronounced to be some other malady altogether, and therefore in this way the beginnings of an epidemic may pass unnoticed.

In the following pages is given, as far as the available material has permitted, a historical and geographical account of the influenza pandemic of 1918-19, so far as it was observed in Europe and America, the incidence of epidemic influenza in Asia and Africa being dealt with separately by my colleague, Dr. James. The course of the pandemic in Great Britain and Ireland has been described in Part I. of this Report.

1.—Epidemic Influenza in Europe, 1918-19.

(Not including the British Islands.)

SWEDEN.

Influenza is included in the list of diseases the notification of which is obligatory in Sweden. In the year 1913, for example, 24,746 influenza cases were notified; 25,275 in 1914; 39,467 in 1915; and 29,414 in 1916.* The corresponding-figures for 1917 have, unfortunately, not been obtained. (The population of Sweden is now about 6 millions.) It appears, therefore, that a disease regarded as "influenza" has been present for some years in Sweden, but whether the epidemic disease that swept over the country in 1918 was precisely the same malady as that which previously occurred, it is impossible to say. There were two separate and distinct prevalences of influenza in Sweden during 1918, the first, beginning towards the end of July, lasted about six weeks; while the second, commencing towards the latter part of September, that is, after an interval of about five weeks, lasted to the end of November, a period of some 12 weeks. As is well known, Sweden is a sparsely-populated country, except as regards some large towns, the chief of which are Stockholm the capital, with a population of 413,163, and Gothenburg (or Goteborg) with 196,943 inhabitants. The behaviour of influenza in these two cities was quite different both in incidence and fatality, for the fatality rate was considerably higher in Stockholm than in Gothenburg, while more attacks were recorded in the latter than in the former.

* 300 deaths were attributed to "grippe," or influenza, in Sweden during 1914,