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PALESTINE



DEPARTMENT OF HEALTH

ANNUAL REPORT

FOR THE YEAR

1942

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LIVERPOOL
TROPICAL
MEDICINE

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(NORTH)

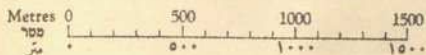
SPREAD OF RAT PLAGUE, 1942-43

JAFFA - TEL AVIV

יפא - תל אביב

מقياس الرسم 1:35,000

קנה מדה 1:35,000



REFERENCE

- ① FOCI OF RAT INFECTION
- ⑦ FOCI OF HEAVY RAT INFECTION

Circle numbers indicate the chronological sequence of known rat infection from November 1942 to March 1943



6. PUBLICATIONS.

The following is a record of publications.

Studies on Hepato-Lienal Cirrhosis in Eastern Mediterranean Countries. R. Reitler, M.D. and S. Btsh, M.D. Transactions of the Royal Society of Tropical Medicine and Hygiene, November, 1942.

The Bactericidal Effect of Tin and its Application to the Treatment of Typhoid Fever. R. Reitler, M.D. and K. Marberg, M.D. Transactions of the Royal Society of Tropical Medicine and Hygiene, February, 1943.

7. VITAL STATISTICS.

The birth rate was 36.67. Thus the downward trend has continued. The death rate at 15 is lower than last year.

8. HOSPITALS AND DISPENSARIES.

There was a further expansion of these services.

9. MATERNITY AND INFANT WELFARE.

Two new government rural centres were opened.

10. VOLUNTARY MEDICAL SERVICES.

Reference is made in the various sections of the report to the activities of the voluntary medical institutions.

The Jewish services cover a wide field which embraces clinics, hospitals, maternity, infant welfare and preschool care, a school medical service and sickness and disablement benefit.

The Vaad Leumi, Kupat Holim and Hadassah direct and control these services.

The Christian missionary institutions operate hospitals, clinics and infant welfare centres widely throughout the country, providing medical care in areas and communities where it would otherwise be lacking.

There is an efficient Moslem hospital in Jaffa and free clinics in the larger towns.

11. MEDICAL AND ALLIED PROFESSIONS.

The enrolment of Palestinian doctors in the fighting services continued. Enactment of the Dentists Ordinance was postponed and an investigation of the position of unlicensed dentists initiated.

12. POLICE AND PRISONS.

The general standard of health of police, prisoners and detained persons was satisfactory.

13. COMMUNICABLE DISEASES.

The principal features of the year were the recurrence of plague in Haifa, its spread to Jaffa and Tel Aviv, the appearance of smallpox in Palestine and the high incidence of enteric fever throughout the country.

14. MALARIA.

The incidence of the disease amongst both the civil and military population remained low. The execution of the Naamein Drainage Project marks an important advance in the control of malaria and brings first class land into cultivation.

15. OPHTHALMIC DISEASE.

Three new village ophthalmic first aid clinics were opened.

16. HELMINTHIASIS.

The service continued to function on restricted lines. Village latrine construction was confined to schools, on account of shortage of materials.

17. TUBERCULOSIS.

There has been no development. The lack of public institutional accommodation continues to be a grave handicap.

18. VENEREAL DISEASE.

The maintenance of the supply of specific drugs, in spite of war difficulties, was an important feature.

FOOD CONTROL AND INDUSTRIAL HYGIENE.

The inspection of food and its control by sampling was an important feature. Some 2,000 additional establishments were brought under license. Close liaison was established with the Labour Department.

LOCAL AUTHORITIES.

Cleansing and other services were efficiently maintained. Little in the way of constructional development was possible.

TOWN PLANNING.

Although there has been inevitable restriction of the normal building activities, planning and particularly rural planning has steadily progressed.

THE PILGRIMAGE.

835 Palestinians journeyed to Mecca. This is the largest number on record and the difficulties of transport by rail and sea were overcome only with considerable difficulty.

LABORATORY SERVICES.

In 1942 the production of vaccines was increased to an unprecedented degree. Over a million doses of calf lymph and some 300,000 doses each of anti typhoid and anti rabic vaccine were distributed in Palestine, Syria, Lebanon and Arabia.

NUTRITION.

An important section of the Department was engaged in the investigation of general and particular nutritional problems and the practical application of their findings. Four interim reports were submitted and arising from these the feeding of undernourished infants and school children was instituted.

AIR RAIDS.

There were no severe air raids. The blood transfusion service was reorganised in the light of recent knowledge.

SECTION II.

VITAL STATISTICS.

BIRTHS, DEATHS AND INFANTILE MORTALITY.

The two tables which follow, the first giving details for the year 1942 and the second summarising the figures for the last five years, display the vital occurrences of the country.

It will be observed that the downward trend of the birth rate has continued. A rate of 17.7 per 1000 of the population is the lowest yet recorded.

The general death rate is lower than in 1940 and 1941.

The infant mortality ratio is higher than last year.

Analysis of the records indicates that the increase has occurred in the towns rather than in villages and that broncho pneumonia, pneumonia, diarrhoea and congenital debility are the conditions responsible.

Certain purely statistical features have served to exaggerate the rise.

The rate is calculated as the number of deaths under one year per thousand live births. There were only 174 more infant deaths than in 1941 but this is associated with 1,464 fewer births.

There is an almost natural inclination to attribute any rise in mortality to conditions created by the war. The importance of maintaining a balanced outlook in this respect is obvious and in order to display the situation at a glance a graph showing the general and infantile death rates in Palestine since 1922 follows Tables A, B and C.

MORBIDITY STATISTICS.

On the initiative of the Department of Statistics seven hospitals agreed to render returns of morbidity. It is proposed to extend this scheme in 1943.

32. NURSING SERVICE.

There were 1138 graduate and probationer nurses in the hospitals of Palestine in 1942. 13 girls graduated from the government training centres.

33. POLICE AND PRISONS.

The general health of the police and of prisoners and interned persons was satisfactory. There were no outbreaks of communicable disease. There were 1940 admissions to hospitals from amongst the police, 1885 from prisons and 468 from internment camps and settlements. The bedstrength of the special prison and detention camp hospital wards and sick bays remained at 156.

SECTION IV.

COMMUNICABLE DISEASES.

34. PLAGUE.

HAIFA.

There were five cases of plague in the northern part of Palestine during the year. Three were infected in Haifa. A fourth came from a village in Galilee. In this case infection could not be traced either to Haifa or the village. The fifth was a British police sergeant who may have been infected in Acre or by contact with number four. Four of the cases occurred in January and February and one in August. Three were fatal.

Rat catching was regularly undertaken in Haifa throughout the year, and in Acre from February onwards, and in two villages. Altogether 9750 rats were taken and examined. 0.3% were found infected. The epizootic appears to be disappearing from the western part of Haifa. That portion of the town lying around and west of Wadi Nisnas produced no infected rodents during the twelve months. 19% of the rats were of the species *rattus*. The flea index averaged 1 per rat and showed little variation with the seasons. 80% of the fleas were *Xenopsylla cheopis*. Antiplague measures consisted in the demolition of the remaining shacks and in rat proofing by patching or reconstruction. A further 147,500 square metres were treated in this way. 170 metres of old sewer were replaced by new and 220 metres of new sewer constructed in previously undrained areas. The cost of these measures to the Government and Municipality was £P.10,200. A number of schemes, designed to improve housing conditions, which were initiated when plague first occurred in 1941, have not materialised.

TEL AVIV AND JAFFA.

On the 7th November a young girl, a native of what is known as the Carton quarter on the Jaffa—Tel Aviv boundary died of an acute febrile condition which had not been accurately diagnosed. Suspicion of plague arose and post mortem examination demonstrated the presence of *B. pestis*. It was not long before infected rats began to be taken and in December there were another 8 human cases. Altogether up to the end of the year, of 630 rats taken, 12 were found infected. By the end of March 1943 there had occurred 15 human cases of which 9 were fatal. 3880 rats had been caught or found dead and of these 88 were infected. Rather remarkably, only 1.5% of the rats are recorded as being of the *rattus* species. 38% of the fleas were *X. cheopis*.

The map on page 14 shows the progress of the epizootic in Jaffa and Tel-Aviv between November and March. This is the first outbreak of plague in this area since 1924.

Antiplague measures consisted in, firstly, rat destruction by means of traps, poison bait and gaseous poisons. Barium carbonate, phosphorus, arsenic and thallium sulphate were all employed as poisons. The first of these proved the most generally useful. Motor car exhaust gas was highly effective where it could be employed.

Inoculation with Haffkine's vaccine was undertaken, in the threatened areas. By the end of March some 16,800 persons had been vaccinated.

Demolition of shacks both inhabited and uninhabited, clearing of rubbish and other rat harbours around dwellings, and intensive scavenging were actively undertaken and by the end of March 1943, 230 inhabited dwellings and 8640 other shacks had been removed and large areas of surface had been rendered rat proof by clearance and patching.

It was necessary to provide alternative temporary accommodation for the dispossessed and on the initiative of the Department and with the active cooperation of the military authorities, the municipalities and the District Commissioner, a camp sufficient to accommodate 160 families was laid out on the Jaffa side in February and similar arrangements were in hand for Tel Aviv. The cost to Government of these measures up to the end of March was £P.3,125.

In anticipation of an extension of the epidemic in this area during the summer of 1943, steps were taken to provide additional accommodation for patients and contacts at the government infectious unit at Benei Beraq.

36. SMALLPOX.

The appearance of smallpox in neighbouring countries and in particular the widespread outbreaks in Syria and Lebanon provided a warning that the spread of infection to Palestine was liable to occur. On the 4th of November the first case appeared. This was a Moslem child from Haifa who had never been vaccinated and contracted the disease during a visit to Damascus. There were six more cases amongst the immediate contacts before the outbreak was controlled.

There were the following further cases during the year. Two Bedouin in the Beersheba district and one person in Tel Aviv who had been a recent visitor to Damascus.

We were to have a sharp outbreak in the Tulkarm district early in 1943, as a result of infection introduced with returning pilgrims from Mecca.

The usual measures of isolation in hospital and vaccination of contacts and neighbours sufficed to control these outbreaks. Land quarantine was imposed on the 22nd of November and a general revaccination in exposed areas and of sections of the population liable to infection was instituted. Altogether in this category 270,000 persons were revaccinated during the succeeding four months.

Palestine has, by efficient vaccination, been kept well protected in the past and the rapidity with which the infection was controlled in this instance is a further witness to the fact.

37. ENTERIC FEVER.

1942 was the year of highest incidence of enteric fever since the British Occupation. 4063 cases were notified with 373 deaths. That is over 1400 cases more than in 1941 and 135 more deaths.

The epidemiology of enteric fever in Palestine since 1921 was discussed at some length in last year's report. It was pointed out that during that long period and in spite of all our efforts the general picture had shown little change and the incidence had not decreased.

The peak year of 1942 shows the same features as regards age and sex incidence, distribution throughout town and country, with a preference for the towns, and death ratios, as in former years; except for the single unhappy feature, that there has been more of it. To what extent the question immediately arises, has the war contributed to this result? When putting this question, one is generally told that the war has produced undernourishment which, in its turn, has resulted in increased intestinal disease. This is not at present the official view. Firstly we are not satisfied that the war has as yet brought about a serious deterioration in the general state of nutrition. There have however been other features. There have taken place, on the one hand, unusual movements of labour to supply military needs. In another direction, the high cost of food combined with a reduction in the quantity available has led to the consumption by human beings of what would normally have been treated as leavings for animal use. These factors, we think, have played a part in spreading the disease.

Three settlements and two villages had sharp outbreaks.

Inoculation was actively undertaken. Altogether 178,000 persons were protected by this means. It is the intention to seek the assistance of the voluntary medical institutions and the profession at large in extending this measure during 1943.

38. OTHER ACUTE INFECTIOUS DISEASES.

The following table gives the figures for the other acute conditions for 1941 and 1942.