

WORLD HEALTH
ORGANIZATION

الرئيسة الصحية العالمية
المكتب الإقليمي لشرق البحر الأبيض

ORGANISATION MONDIALE
DE LA SANTÉ

REGIONAL OFFICE FOR THE
EASTERN MEDITERRANEAN

BUREAU RÉGIONAL DE LA
MÉDITERRANÉE ORIENTALE

REGIONAL COMMITTEE FOR THE
EASTERN MEDITERRANEAN

EM/RC8/13
25 September 1958

Eighth Session

ORIGINAL: ENGLISH

Agenda item 10 (b)

UNITED NATIONS RELIEF AND WORKS AGENCY
FOR PALESTINE REFUGEES

The Regional Director has the honour to present to the Eighth Session of the Regional Committee for the Eastern Mediterranean the report of Dr. J.S. McKenzie Pollock, Chief, Health Division and WHO Representative to the United Nations Relief and Works Agency for Palestine Refugees, for the period 1 July 1957 - 30 June 1958.

UNITED NATIONS RELIEF AND WORKS AGENCY
FOR PALESTINE REFUGEES

REPORT OF THE HEALTH DIVISION

1 July 1957 - 30 June 1958

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UNRWA Headquarters
Beirut, Lebanon.
September, 1958.

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HEALTH SERVICES

1. ORGANIZATION AND STAFF

1. The organization of the Agency's health services has remained substantially unchanged during the period under review. The World Health Organization, by agreement with the Agency, continues to be responsible for the technical direction of these services providing certain of the senior staff, including the Chief Medical Officer of the Agency.

2. As mentioned in the previous report, the paramount importance of preventive medicine as well as the value of health education of the public are two subjects which are constantly emphasized in the field in order to develop to a maximum among the staff an awareness and appreciation of their influence in improving the state of health of the refugee population.

3. Table I below records the number of staff employed in the Agency's health services (including persons seconded by WHO) as at 30 June, and shows a slight decrease during the present period of report, due mainly to the reduction of posts under the supplementary feeding programme. There has been a moderate increase of the numbers employed in Sanitation and Shelter Maintenance.

The table does not include the hundreds of workers employed in hospitals and clinics subsidized by the Agency for the provision of services to the refugees.

Table 1

| | Headquar- ters | Lebanon | Syria | Jordan | Gaza | Total |
|---|-------------------|---------|-------|--------|-------------|-------|
| International Staff | | | | | | |
| Doctors | 4 | 1 | 1 | 1 | 1 | 8 |
| Nurses | 1 | 1 | 1 | 1 | 1 | 5 |
| Sanitation Officers | 1 | 0 | 0 | 0 | 0 | 1 |
| Nutritionist | 1 | 0 | 0 | 0 | 0 | 1 |
| Supply & Materials Officer (medical) | 1 | 0 | 0 | 0 | 0 | 1 |
| | | | | | Sub-Total | 16 |
| Area Staff | | | | | | |
| Doctors, full-time | 1 | 18 | 13 | 45 | 15 | 92 |
| Doctors, part-time | 0 | 0 | 1(a) | 4 | 0 | 5 |
| Dentists, full-time | 0 | 1 | 1 | 0 | 1 | 3 |
| Dentists, part-time | 0 | 0 | 0 | 1* | 0 | 1 |
| Nurses (nurse midwives & public health nurses) | 1 | 18 | 14 | 51 | 18 | 102 |
| Auxiliary nurses (practical, aid, CBA) | 0 | 29 | 32 | 198 | 67 | 326 |
| Midwives | 0 | 7 | 2 | 1 | 3 | 13 |
| Sanitation and Maintenance Officers | 0 | 3 | 2 | 3 | 2 | 10 |
| Food Supervisors | 0 | 2 | 1 | 3 | 1 | 7 |
| Laboratory Technicians | 0 | 2 | 1 | 3 | 3 | 9 |
| Pharmacists & Tech- nicians | 1 | 1 | 1 | 1 | 1 | 5 |
| Health Educator | 1 | 0 | 0 | 0 | 0 | 1 |
| Others : Medical | 25 | 25 | 19 | 72 | 49 | 190 |
| Sanit. & maint. | 1 | 9 | 6 | 13 | 46 | 75 |
| Suppl. Feed/milk | 0 | 7 | 5 | 13 | 15 | 40 |
| | | | | | Sub-Total | 879 |
| Labour category | | | | | | |
| Medical | 1 | 38 | 37 | 142 | 85 | 303 |
| Sanitation & maintenance | 0 | 146 | 61 | 584 | 571 | 1,362 |
| Supplementary feeding/milk | 0 | 123 | 106 | 505 | 237 | 971 |
| | | | | | Sub-Total | 2,636 |
| | | | | | Grand Total | 3,531 |
| | | | | | | ===== |

* There are in addition 8 private practitioners hired on a contractual basis.

(a) There are in addition 2 private specialists hired on a contractual basis.

2. CLINICS, HOSPITALS AND LABORATORIES

4. The number of clinics operated directly or subsidized in cash by the Agency is 72 (of which 64 are static and 8 are mobile, the latter covering 33 points of service). In addition the services of government clinics and a number of voluntary societies' clinics are utilized as well as the out-patient department facilities of large hospitals of the host countries.

5. On the whole satisfactory services have been maintained throughout the year, though in Jordan the shortage of medical officers imposed some strain at times in clinics. In Lebanon the public unrest during May and June limited the use that was made by the refugee population of the facilities provided almost uninterruptedly throughout the whole of this difficult period.

6. The following modifications of existing services took place in Lebanon and Syria to meet the changing needs in different areas or to provide improved facilities where these were necessary and possible.

In Lebanon during November a new polyclinic was established on the outskirts of Saida town and close to Ein el Hilweh camp to serve not only the refugee population living in these two centers, but also that of the nearby Mia Mia camp. This arrangement permitted the closure of the 3 small clinics previously utilized. Similarly with the opening during the same month of new clinic premises to serve Burj el Barajneh and Shatila Camps at Beirut, a further 2 small clinics were no longer required. In Syria an extra mobile clinic was established in January to serve certain outlying groups.

7. The following table shows the number of visits paid to Agency clinics during the period of report:

Table 2

| Description | Lebanon | Syria | Jordan | Gaza | Total |
|---|---------|---------|----------------------|----------------------|----------|
| Population served by medical services (a) | 113,000 | 95,000 | 430,000 ^b | 278,000 ^b | 916,000 |
| General medical cases | 282,354 | 331,646 | 590,575 | 430,154 | 1634,729 |
| Dressings and skin | 155,406 | 128,939 | 898,272 | 493,856 | 1586,473 |
| Eye cases | 162,140 | 56,531 | 973,972 | 542,360 | 1735,003 |
| Dental | 26,486 | 17,148 | 41,866 | 11,323 | 96,823 |
| Total | 626,386 | 534,264 | 2414,685 | 1477,693 | 5053,028 |

(a) Figures show the number of refugees and residents served by the Agency's medical services as last year but do not represent the total number of refugees in the respective countries.

(b) Includes services by UNRWA to 35,000 non-refugees in Jordan and 60,000 in Gaza

8. The number of hospital beds maintained by or reserved for the Agency decreased from 2150 in June 1957 to 2102 in June 1958. This decrease was the result of the reorganization and readjustment of the hospital services to meet the changing needs in the different areas of operations, and did not reflect unfavourably on the standards of hospital care, as it was associated with improvements of services taken as a whole.

Mainly T.B. beds were involved in the decrease and detailed reference is made in this regard under paragraph 33. The decrease in general beds in Jordan was effected in accordance with the hospital reorganization plan whereby transfers were to be carried out from Jerusalem to areas much poorer in hospital beds, such as Nablus and Amman. The first stage of the operation, i.e. the closure, is reflected in the statistical report of end June, which is the cut-off date of the annual report while the opening of the new beds in Amman and in Nablus, foreseen for July and August 1958 will show only in the next report.

The number of beds in Syria decreased slightly in certain Government hospitals while some small camp maternity posts were closed. By contrast, in Gaza, the number of beds available to refugees and residents has increased by 52 beds due mainly to extensions in the Red Crescent and Isolation hospitals. In Lebanon the situation has not changed in any significant way.

Table 3

| No. of beds available | Lebanon | Syria | Jordan | Gaza | Total |
|--------------------------|-----------|----------|-----------|----------|-----------|
| General | 127 | 103 | 627 | 348 | 1,205 |
| T.B. | 150 | 25 | 155 | 150 | 480 |
| Maternity | 14 | 10 | 52 | 80 | 156 |
| Paediatric | 19 | 18 | 130 | 23 | 190 |
| Mental | <u>41</u> | <u>0</u> | <u>30</u> | <u>0</u> | <u>71</u> |
| Total | 351 | 156 | 994 | 601 | 2,102 |

9. The special facilities available in the large teaching hospitals in Beirut for neuro-surgery, thoracic surgery and X-ray therapy continue to be utilized by patients from Jordan, Lebanon and Syria, while similar facilities in Cairo are utilized by patients from the Gaza district. In Jordan the Agency's contract with the Red Crescent Hospital at Amman for 17 beds was terminated at the end of December with the closure of the hospital, but was replaced by a new contract with the Italian Hospital for 17 beds. The bed strength of the Agency's hospital at Salt was reduced from 75 to 67 (T.B. Section was affected). In Gaza, the Government Public Health Department took over the UNEF Hospital during the second quarter of the period under review and established a 70-bed isolation hospital in the building, at which refugees are treated.

A fire broke out in the Augusta Victoria Hospital, Jerusalem, on 25 April and was rapidly brought under control thanks to local efforts. Emergency measures which had to be taken in connection with the material damage to the patients' wards were carried out very efficiently, so that, in fact, the fire did not have any serious repercussions on the patients.

10. Facilities for the admission to hospital of mental patients continue to be provided by the Agency in Lebanon and Jordan while in Syria and in Gaza this responsibility is borne by the Government authorities. The Syrian Government in addition continue to maintain in Damascus a 60-bed asylum for aged refugees who are provided with food, clothing and medical care. The Agency supplies such medicines as are required.

11. Laboratory services continue to be provided by Agency-operated, university, governmental, or subsidized private laboratories. In Lebanon, following the opening in Beirut of the new government public health laboratory, arrangements were completed with the Director of Health for the examination by the laboratory of clinical and pathological specimens submitted by the Agency's medical officers as well as for the examination of water supplies for potability. In Lebanon and Syria, in accordance with the arrangements for cooperation in the malaria eradication programme, information is passed to the Ministry of Health in respect of all refugee patients found to be suffering from malaria on microscopical examination of blood smears carried out in Agency laboratories. . A similar arrangement has been put into effect in Jordan since the national malaria eradication programme was started in 1958.

3. MATERNAL AND CHILD HEALTH

12. With the occurrence during the summer months of 1957 of the epidemic of Asiatic influenza, the children were kept home and, as a result, attendances at the Agency's maternal and child health centers decreased, and, in the case of Gaza district, these clinics, as well as the camp maternity centers, were closed for the greater part of September, but were able to re-open on 1 October. Similarly, the measles epidemic, which spread in the Gaza district during the early months of the new year, resulted in a decreased attendance at the infant health centers during January and February, but by March, with the decline in the epidemic, attendance once more reached a normal level. During the period under review, attendances at the Agency's maternity clinics numbered 105,127 in comparison with 109,701 for the previous period of review, while the corresponding figures in respect of the infant health clinic attendances are 338,617 (monthly average 28,218) and 350,752 (monthly average 29,230) respectively.

13. The function of the maternity clinic being the maintenance of the state of good health of the expectant mother, attendance at monthly intervals is encouraged during the early stages of pregnancy, gradually changing to weekly intervals as the expected date of delivery approaches. Delivery normally takes place in the home or in the camp maternity center, hospital care usually being reserved for complicated cases. In the clinic, there is a regular medical and nursing supervision, simple health instructions are given, and a ready-made layette or materials for the making of a layette are provided. On medical certification, a daily issue of skim milk and a monthly issue of supplementary dry rations are made from the beginning of the 5th month of pregnancy till the end of the 12th month

after delivery. A serological test for syphilis is carried out and if the result be positive, an adequate course of treatment is given and family members are also examined for evidence of the disease. The number of such tests carried out during the period under review was 18,463 of which 256 proved to be positive, i.e. 1.4%.

14. In the discovery, treatment, and control of syphilis among the refugee population, as well as in the observation of the epidemiological trends of the disease, the maternity health service and the serological test for syphilis carried out at the first attendance at the ante-natal clinic are of paramount importance, since large and changing groups of women are under constant medical supervision, there is early discovery of the disease where it exists, and there are full facilities for treatment and observation of patients with positive serological tests.

The following statistics give interesting information on the epidemiological trends of syphilis occurring among refugee pregnant women attending maternity clinics during the last 7 years (statistics for 1953/54 not available): -

| | <u>1951/52</u> | <u>1952/53</u> | <u>1954/55</u> | <u>1955/56</u> | <u>1956/57</u> | <u>1957/58</u> |
|------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Number of ante-natal STS performed | 17,538 | 19,458 | 21,223 | 20,800 | 18,629 | 18,463 |
| Number of positive STS) | 1,032 | 577 | 557 | 342 | 259 | 256 |
| Percentage) positive | 5.9 | 3.0 | 2.6 | 1.64 | 1.39 | 1.4 |

15. At the child health centers simple advice is given to mothers regarding the care of their infants and young children, covering such subjects as breast feeding, weaning, diet, bathing and clothing. Prophylactic immunizations against smallpox, diphtheria, pertussis and enteric group fevers are carried out. Beneficiaries for supplementary feeding in the 0-2 years age group are also selected through these clinics.

16. As in all countries in the Near East, summer diarrhea and gastro-enteritis among infants and young children constitute a serious problem during the warm weather. As mentioned in the previous year's report, certain dietetic experiments have been carried out in Jordan and Gaza in the case of infants recovering from diarrhea. That of Jordan has been the more successful and the special menu used there, the basis of which is labaneh (a skim-milk cottage cheese) is being introduced into the Gaza district. A special in-service training programme in maternal and child care conducted by the Senior Medical Officer for MCH, the Senior Public Health Nurse and Health Educator has completed its first 2-month course for qualified nurses in the Jericho area. The second course for auxiliary personnel started in May. It is intended that this course be repeated in all areas in Jordan. Special emphasis is being placed on the following subjects: nutrition of infants, infective summer diarrhea, breast feeding, post-diarrhea menus.

17. During the period under review, 12,792 school-children and 299 teachers in Agency schools were medically examined. In Jordan, however, because of staff shortages, the school health teams were unable to operate during most of the year. In Lebanon and in Gaza, very few examinations took place as the duties of the school health teams were centered around special surveys or other related medical activities. In Gaza, for example, the school medical officer has been engaged in the anti-ankylostomiasis campaign, in the tuberculin testing and BCG vaccination of school-children, as well as in immunizations against pertussis and the enteric group of fevers. In Jordan, all elementary school-children were re-inoculated against diphtheria. In Syria, the examinations proceeded normally.

4. NUTRITION

18. The calorie value of the basic rations supplied to refugees continued unchanged throughout the year at about 1,500 calories per day in summer and about 1,600 calories per day in winter, and with a total vegetable protein content of 41.7 and 44.2 grams respectively. The constituents also remained unchanged except that at the end of October 1957 burghol was eliminated and the subsequent issue of cereal, other than flour, consisted of rice only.

19. The average monthly number of expectant and nursing mothers in receipt of the special supplementary rations issued from the beginning of the 5th month of pregnancy to the end of the 12th month after delivery, and having a value of 500 calories per day, was 25,140. This same group, together with all children up to the age of 15 years, who are also entitled to a daily issue of milk, added up to an average daily number of 185,279 persons. In addition, milk was issued to schools and orphanages on medical prescriptions. For those refugees (mostly children) selected on medical grounds as being in need of supplementary feeding, a nutritionally balanced hot meal was provided on 6 days each week and issued to an average of 43,363 persons daily. This meal, which varies in calorific value according to the age of the recipient from 200 calories to 700 calories, includes besides the dry ration constituents, items of fresh food such as fruit, vegetables, meat, eggs, as well as 500 grams of dry skim milk to help in preparation of the menu. This daily meal is provided for a period of 3 months, but may, on medical certification, be continued for a longer period. Fish oil capsules continue to be issued through supplementary feeding centers and to school-children attending the Agency's elementary schools. Hospital rations

have continued unchanged while approximately 1,300 out-patients suffering from pulmonary tuberculosis continue to receive double basic rations. The issue through Agency milk centers of a daily ration of milk to some 17,000 Gaza (non-refugee) residents by the voluntary society CARE was in abeyance throughout most of the period under review, but was recommenced in April 1958.

20. The school milk programme continued satisfactorily in Syria, Jordan and Gaza, the dilution of the milk powder in water being changed from the proportion 1:4 to 1:3, with considerable appreciation by the school-children. In Lebanon, however, little progress has been made in implementing this programme.

21. The report on nutrition and dietary survey conducted in 1955/56 was, after a prolonged and detailed analysis by WHO, considered inconclusive. Collection of further and periodical data appeared necessary and efforts were made to devise methods for obtaining these. Although a pilot study was started in Jordan in 1957, the innumerable technical difficulties attached to such periodical clinical surveys slowed down progress and the project is still in the planning stage.

22. Dr. R.C. Burgess, Chief of the Nutrition Section, WHO Geneva, spent four weeks in the Agency area during November visiting camps, clinics, hospitals, milk and supplementary feeding centers, examining large numbers of school-children and assessing their general nutritional state. He also held discussions with the paediatric specialists attached to the various hospitals admitting refugee children. He found no deterioration in the general nutritional state of the refugees since his last visit, which took place two years previously; in some aspects there was an improvement.

5. COMMUNICABLE DISEASES CONTROL

23. A list of infectious diseases recorded among the refugee population during the period of review is given in the following table:

Table 4

| | Lebanon | Syria | Jordan | Gaza | Total |
|-----------------------------|---------|--------|---------|---------|---------|
| Population * | 113,000 | 95,000 | 430,000 | 278,000 | 916,000 |
| Plague | 0 | 0 | 0 | 0 | 0 |
| Cholera | 0 | 0 | 0 | 0 | 0 |
| Yellow fever | 0 | 0 | 0 | 0 | 0 |
| Smallpox | 0 | 0 | 0 | 0 | 0 |
| Typhus (louse borne) | 0 | 0 | 0 | 0 | 0 |
| Typhus (endemic) | 0 | 0 | 0 | 0 | 0 |
| Relapsing fever | 0 | 0 | 8 | 0 | 8 |
| Diphtheria | 7 | 8 | 70 | 1 | 86 |
| Measles | 1,124 | 421 | 2,008 | 10,395 | 13,948 |
| Whooping cough | 1,100 | 606 | 1,835 | 33 | 3,574 |
| Chickenpox | 277 | 413 | 3,160 | 7,619 | 11,469 |
| Mumps | 409 | 373 | 1,021 | 1 | 1,804 |
| Meningitis (cerebro-spinal) | 7 | 5 | 8 | 5 | 25 |
| Poliomyelitis | 7 | 6 | 43 | 0 | 56 |
| Enteric Group fevers | 152 | 144 | 157 | 150 | 603 |
| (Dysentery | 18,170 | 15,529 | 14,100 | 22,579 | 70,378 |
| (Malaria | 66 | 291 | 1,843 | 18 | 2,218 |
| Bilharziasis | 0 | 0 | 0 | 94 | 94 |
| ankylostomiasis | 49 | 0 | 0 | 1,509 | 1,558 |
| (Trachoma | 7,146 | 1,217 | 82,143 | 15,948 | 106,454 |
| (Conjunctivitis | 21,437 | 10,795 | 102,352 | 18,727 | 153,311 |

* These figures represent the number of refugees whether registered or not and also residents (as in Jordan and Gaza) concerning whom UNRWA's Field Health Officers obtain records of the incidence of infectious diseases. The balance of residents at risk are reported on in Gaza by the Gaza Public Health Department and in Jordan by the Jordan Public Health Department.

Dysentery, malaria, trachoma, conjunctivitis - The number shown on this table does not represent clinical cases but number of attendances.

24. No quarantinable disease occurred during the period under review and only 8 cases of relapsing fever, considered on epidemiological ground to be tick-borne, were reported in contrast to the 40 similar cases recorded during the previous 12 months. All occurred in Jordan.

An outbreak of Asiatic influenza spread in all Agency areas of operations in July, August and September 1957. In October, a second wave occurred in Lebanon and Jordan with a lower attack rate, but greater severity. No mortality was registered.

25. There has been some increase in the incidence of poliomyelitis. 56 cases were reported in all 4 countries during the period of review in contrast to 20 cases during the previous period. After careful consideration of the epidemiological factors involved, the Agency decided not to institute a vaccination programme, but is watching the situation carefully. Only in a few instances have vaccinations been carried out in several Jordan clinics, the vaccine being distributed by the Ministry of Health.

26. An anti-ankylostomiasis campaign was launched in those localities of the Gaza district where the disease is prevalent. A general survey followed by the mass treatment of positive cases was carried out among the school-children and this is expected to have the effect of reducing the incidence of the infection among the population.

27. Gaza experienced a severe outbreak of measles which affected the refugee and non-refugee population alike.

28. An outbreak of diphteria which started among the non-refugee population in Jordan also affected the refugees but due to a vigorous anti-diphteria campaign the spread of this disease was prevented.

29. In all Agency clinics active immunization campaigns against the related communicable diseases were carried out.

30. Immunization. The total number of routine immunizations given during the period under review were as follows: -

| | <u>Lebanon</u> | <u>Syria</u> | <u>Jordan</u> | <u>Gaza</u> | <u>Total</u> |
|------------|----------------|--------------|---------------|-------------|--------------|
| TAB | 5,213 | 67,615 | 48,754 | 38,881 | 160,463 |
| Smallpox | 4,470 | 2,233 | 1,979 | 103,686 | 112,368 |
| Diphtheria | 6,306 | 2,637 | 35,586 | 4,077 | 48,606 |
| Pertussis | 1,027 | 1,431 | 9,195 | 5,076 | 16,729 |

31. The reduction in the number of cases of enteric group fevers is noteworthy and is undoubtedly due to provision of safe water supplies, effective immunization and improved health education.

32. Dysentery and eye diseases are still the most prevalent infections, particularly during the summer months.

33. Tuberculosis Control. The emphasis placed on the domiciliary treatment of tuberculosis combined with the use of the new chemo-therapeutic agents has been continued this year and is proving to be satisfactory. So much so that the waiting lists for hospital admission have practically been abolished in all countries and, as already mentioned in paragraph 8 of this report, it was even possible to close the 26-bed tuberculosis pavilion of the Augusta Victoria Hospital at Jerusalem, there being sufficient beds elsewhere to cover the reduced need for hospital admission. Double basic rations continue to be provided for all pulmonary tuberculosis patients undergoing domiciliary treatment.

34. In Jordan, the new Government/WHO tuberculosis center at Amman was opened in November and an agreement was reached with the Ministry of Health as a result of which all tuberculous refugee patients living in East Jordan are being treated at this center.

Following the gift by the Swiss Government of a microfilm attachment for the X-ray unit at the Agency's tuberculosis hospital at Nablus, a mass X-ray survey of the school-children living in that area is at present being carried out. Similarly in Gaza, a tuberculin-test and BCG vaccination campaign is taking place among school-children. Those showing a positive reaction to the tuberculin test are X-rayed by the UNEF mass-radiography unit.

35. In Lebanon, the facilities in Bhannes Sanatorium for thoracic surgery are available to refugees from all 4 countries.

36. Malaria Control. The following table gives a summary of the Agency's anti-malaria activities during the year:-

Table 5

| Country | Camps sprayed | Residual spraying campaigns | | |
|---------|------------------|-----------------------------|-----------------------|-------------------------|
| | | Villages sprayed | Sq. meters sprayed | Population protected |
| Syria | 2 | 1 | 41,121 | 1,130 |
| Jordan | 1 | 59 | 1,744,185 | 51,250 |

Larvicidal Campaign (Jordan)

Estimated number of square meters oiled during period April-November 1957 inclusive: 51,483,500

Number of liters DDT-pure, resin-solar oil (2.5% DDT, 2% resin) 128,594

Drainage (Jordan)

Number of linear meters cleared 17,891
 Number of cubic meters dug as drains 18,880
 Number of square meters dried 782,650

37. In Jordan, a malaria eradication programme on a national scale is now being developed. The Agency's anti-malaria programme will be absorbed within the framework of this national eradication programme.

38. Since 1953 the most malarious areas of the country, the Yarmuk Jordan Valleys, have been controlled by the Agency and during the year under review the coverage has continued to include not only the valleys themselves but also the adjoining mountainous areas.

Weekly larviciding of all potential anopheline-breeding surfaces in the area of control was carried out regularly throughout the breeding season. Residual spraying of some of the villages lying on the borders of controlled areas and on the frontiers was also carried out to prevent infiltration of vector mosquitoes. Several difficulties were experienced in preventing infiltration of disease-carrying mosquitoes into the border areas between Jordan and Syria and Jordan and Israel.

39. An epidemiological survey carried out in the controlled areas of Jordan showed among the 526 infants examined only 4 positive blood smears, and when these cases were investigated they proved to have contracted the disease outside the controlled area. Likewise, 2,803 school-children examined from the controlled area revealed a parasite rate of only 0.9%. Any further reduction of this figure is rendered impossible through movement of people between non-controlled and controlled areas.

40. In Lebanon and Syria, the Agency's anti-malaria programmes were incorporated with the national malaria eradication schemes during the year. Spraying teams operating in refugee camps were supervised by the national malaria programme employees and the Agency's malaria technician.

41. The Agency was represented by its epidemiologist at the WHO Technical Malaria Eradication meeting for the whole Eastern Mediterranean Region held in Baghdad during December 1957. Three papers on the activities of the Yarmuk-Jordan anti-malaria programme were presented by him at the meeting.

42. The percentage of incidence of malaria during the season July to December is obtained from the records of all the Agency clinics. The table below shows the incidence of malaria from year to year. In spite of the slight increase of the incidence of malaria in the non-controlled areas in Jordan, the overall incidence of the disease in the four countries shows a declining trend.

Table 6

| Country | July | August | September | October | November | December |
|--------------------|-----------------|--------|-----------|---------|----------|----------|
| <u>Lebanon</u> | <u>Per cent</u> | | | | | |
| 1953-54 | 1.2 | 1.5 | 1.1 | 1.5 | 0.8 | 0.5 |
| 1954-55 | 0.4 | 0.2 | 0.3 | 0.3 | 0.3 | 0.2 |
| 1955-56 | 0.18 | 0.18 | 0.18 | 0.19 | 0.16 | 0.07 |
| 1956-57 | 0.14 | 0.22 | 0.11 | 0.22 | 0.13 | 0.11 |
| 1957-58 | 0.2 | 0.4 | 0.007 | 0.13 | 0.15 | 0.15 |
| <u>Syria</u> | | | | | | |
| 1953-54 | 0.4 | 3.4 | 2.6 | 3.4 | 1.9 | 1.0 |
| 1954-55 | 1.3 | 1.9 | 1.5 | 2.5 | 1.4 | 0.5 |
| 1955-56 | 0.54 | 0.68 | 0.8 | 1.0 | 0.5 | 0.18 |
| 1956-57 | 0.27 | 0.34 | 0.4 | 0.5 | 0.3 | 0.25 |
| 1957-58 | 0.6 | 0.1 | 0.23 | 0.41 | 0.22 | 0.09 |
| <u>East Jordan</u> | | | | | | |
| 1953-54 | 8.5 | 8.3 | 7.5 | 8.3 | 6.0 | 5.1 |
| 1954-55 | 3.0 | 3.0 | 3.9 | 4.1 | 3.5 | 2.2 |
| 1955-56 | 1.96 | 1.8 | 1.7 | 1.9 | 2.3 | 1.5 |
| 1956-57 | 1.2 | 0.97 | 1.0 | 0.96 | 0.75 | 0.38 |
| 1957-58 | 0.17 | 0.35 | 0.49 | 0.68 | 0.62 | 0.66 |
| <u>West Jordan</u> | | | | | | |
| 1953-54 | 2.1 | 2.4 | 2.7 | 2.4 | 2.2 | 1.0 |
| 1954-55 | 2.2 | 1.5 | 1.4 | 1.8 | 1.7 | 1.6 |
| 1955-56 | 1.24 | 1.2 | 0.86 | 1.1 | 1.1 | 0.8 |
| 1956-57 | 1.1 | 0.86 | 0.81 | 0.8 | 0.5 | 0.59 |
| 1957-58 | 0.17 | 0.38 | 0.93 | 0.8 | 0.55 | 0.3 |
| <u>Gaza</u> | | | | | | |
| 1953-54 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 1954-55 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 1955-56 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 1956-57 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 1957-58 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

6. ENVIRONMENTAL SANITATION

43. (a) Water Supplies. In general, there was no change in the water supply situation in camps during the year. One camp in Jordan (Amari), which previously had been supplied by water tanker, was eventually connected to the Jerusalem-Ramallah Municipal Water Supply. The use of private rented wells in Bureij and Nuseirat camps in Gaza is shortly to be discontinued on completion of Agency-constructed wells. The less-than-average rainfall during the winter in Southern Syria and many parts of Jordan is expected to result in water shortages in some of the Agency camps. Provision for water tankers to supplement existing supplies should however cope with the anticipated shortages.

(b) Excreta and Refuse Disposal. Additional septic latrines were built in camps in Jordan, and in the other 3 countries where space in camps permitted. The number of latrine holes is still however less than the goal of three per hundred of the population. A programme has been inaugurated in Jordan to encourage officially the construction of private latrines by refugee families living in camps. The Agency provides a slab, S-trap, and 2 bags of cement while the refugee families provide the labour and requisite additional materials. Disposal of refuse, hitherto largely by incineration or burial, is now more often effected by local contractors or municipalities against payment.

(c) Insect Control. Anti-fly Measures. The insecticidal programme carried out using mainly a mixture of Diazinol and DDT for control of flies did not produce very good results. Fly resistance to most insecticides becomes a major obstacle and again most reliance has to be placed on sanitation measures and health education of the public. Trial of newer methods using modified insecticide "cocktails", baits and impregnated cords

are also being planned while space spraying is still used in feeding centers. Anti-louse measures were carried out successfully and regularly in all fields with 1% BHC (Lindane). No cases of louse-borne diseases were recorded in the Agency area of operations during the period under review nor for that matter, during the last five years. Control of bed bugs and fleas was also carried out in all fields but with limited success. Gammexane water dispersible powder was extensively used either alone or in combination with DDT besides Diazinol and chlordane, which were used mostly against fleas. Introduction of newer mixtures of insecticides recommended by WHO are under study.

7. NURSING SERVICES

44. The nursing services continue to make a major contribution to the Agency's health programme in the preventive field of maternal and child health, school health, tuberculosis control, home visiting, health education and prophylactic immunization as well as in the curative field of clinic and hospital services. In addition, an active part is taken in the basic training of students of general nursing as well as in the various forms of in-service training carried out by the Health Division of the Agency. An indication of the work-load that is largely borne by the nursing staff is given in Table 2.

45. For these various preventive and curative services a staff of 102 nurses and 326 nursing auxiliaries is employed. In this number is not included the nursing staff of the different hospitals and clinics subsidized by the Agency. In order to raise the standard of nursing services, particularly in the preventive field, fellowships tenable for 1 year at the School of Public Health of the American University of Beirut were granted to four selected Agency nurses who, having successfully completed their course of training, returned to their posts to benefit the service with their wider knowledge and improved techniques.

8. HEALTH EDUCATION OF THE PUBLIC

46. This activity established, with the assistance of WHO, has now been in operation for 3 years, and it is encouraging to note that various health ministries as well as important commercial concerns are developing a similar approach in dealing with preventable health problems. Much effort has been expended by the Health Education Workers in their work in the field, in schools, clinics, supplementary feeding centers, as well as in homes and public places in spreading health education among parents and children, teachers and pupils, community leaders, Agency employees (including sanitation staff) in order that the community may be enabled to develop a healthier way of life. It is difficult to evaluate what has been achieved in such a short period of time as three years, but it is not unreasonable to see the influence of health education in the decrease of enteric group fevers in Jordan, in the increased standards of cleanliness of those attending the supplementary feeding centers, and in greater tidiness in camp areas.

Special mention must be made of the two films produced by the Visual Aid Department of the Agency. One of them deals with the anti-fly campaign and was filmed in Jericho during the cleanliness week launched there some time in June. The other has been extensively shown in Jordan during May-June and demonstrates the preparation of the hommos/burghol pudding for infants. Needless to say that the nutritive value of this meal is stressed and conveyed to the attending mothers, who are thus encouraged to feed it to their infants.

47. Specific activities of Health Education Workers during the period of review included, during spring and summer, participation in anti-fly campaigns, tuberculosis control and immunization campaigns, the prevention and control of infective summer diarrhea, the showing of a food protection exhibition, the exhibition of films on health subjects, and teachers health education courses. During autumn and winter, the

organization of school health committees, a nutrition exhibition and participation in an anti-ankylostomiasis campaign. Much assistance was also given to the other health services during the Asiatic influenza epidemic which occurred in the middle of 1957 and during the measles epidemic which occurred in the Gaza district early in 1958.

9. MEDICAL, EDUCATION AND TRAINING

48. The following table shows the continuation of the training programme of medical and para-medical personnel: -

Table 7

| Project of Fellowship | Location | Length of training | Number qualified |
|---|--|--------------------|------------------|
| Courses completed during the year under review (academic year 1956-57) | | | |
| Public Health Diploma for doctors | American University, Beirut | 1 year | 2 |
| Public Health Certificates for nurses | American University, Beirut | 1 year | 4 |
| Sanitation Certificate | American University, Beirut | 1 year | 3 |
| Health Education Certificate | American University, Beirut | 1 year | 1 |
| Medicine | American University, Beirut | 5 years | 2 |
| Medicine | Cairo University | 5 years | 3 |
| Medicine | Ein Shams University, Cairo | 5 years | 3 |
| Dentistry | Cairo University | 4 years | 1 |
| Midwifery | Maternité Française | 1 year | 1 |
| Nursing | Augusta Victoria Hospital, Jerusalem, Nursing School | 3 years | 18 |
| Nursing | U.K. School | 3 years | 4 |

Table 7 (continued)

| Project of Fellowship | Location | Length of training | Number of trainees |
|-----------------------|--------------------------------------|--------------------|--------------------|
| Courses in operation | | | |
| Medical | Egyptian University | 5 years | 66 |
| | American University, Beirut | 5 years | 13 |
| | Faculté Française | 5 years | 2 |
| | Syrian University | 5 years | 12 |
| | Iraqi University | 5 years | 6 |
| Dental | Egyptian University | 4 years | 6 |
| | Iraqi University | 4 years | 1 |
| | Syrian University | 4 years | 2 |
| | Faculté Française | 4 years | 1 |
| Veterinary | Egyptian University | 4 years | 5 |
| Pharmacy | Syrian University | 4 years | 1 |
| | Egyptian University | 4 years | 5 |
| | American University, Beirut | 4 years | 2 |
| General Nursing | American University, Beirut | 3 years | 1 |
| | Makassed Hospital | 3 years | 1 |
| | Augusta Victoria Hospital, Jerusalem | 3 years | 37 |
| | Baptist Hospital, Gaza | 3 years | 9 |
| | U.K. | 3 years | 19 |

49. In addition to the above, one Agency medical officer attended a special 5-day course in Dermatology and Venerology held at the American University of Beirut. The annual meeting of the Société Libano-Française de Médecine took place in Beirut in November 1957, and was attended by a number of the Agency's medical officers from Lebanon and Syria. The Agency again contributed to the cost of the Eighth Middle East Medical Assembly held in May 1958. Some 55 doctors of the Agency's staff or from hospitals subsidized by the Agency attended the Assembly; a special section was devoted to nursing in which the Agency's nursing staff took part.

50. In Jordan, a series of lectures on, and clinical demonstrations of, nutritional deficiencies as manifested among the refugee population were given by the Agency's medical consultant to different groups of camp medical officers and have proved very helpful in clinical diagnosis and in the selection of beneficiaries for supplementary feeding. The current in-service maternal and child health training course has already been referred to in paragraph 16 of this report.

51. As in previous years, the staff of St. John's Ophthalmic Hospital in Jerusalem again agreed to receive 3 UNRWA medical orderlies for 3 months during the summer to give them a refresher course in ophthalmic work. Many of the UNRWA staff have already had this training which has raised considerably the standard of the technique used in ophthalmic clinics.

52. The school of nursing in Jerusalem is again preparing to receive a new group of first year students. The availability of more girls with secondary education as well as the growing interest of the better educated part of the population in the nursing profession has made it possible to raise the entry requirements from 8 to 9 years of schooling. The Government/United States Operations Mission School requires the same standard. A committee of nurses has been formed to standardize the educational programmes and revise the curriculum of the Government/United States Operations Mission school of nursing in Amman and the school of nursing at the Augusta Victoria Hospital in Jerusalem.

10. MEDICAL SUPPLIES

53. In general throughout the period of review, the provision of medical supplies has been satisfactory. The bulk of items was purchased by the Agency through UNICEF on the world market at competitive prices. Local purchase was reserved for relatively few items needed urgently or in small amounts. No major problems have been experienced in distribution to the different fields or to the individual hospitals and clinics operating therein.

11. REPORTS AND STATISTICS

54. Information on the pattern of diseases occurring in the refugee population is being collected as advised by a WHO expert in Health Statistics. Two sample surveys, one in August 1957 and the other in January 1958, have been carried out in Agency clinics and the data derived therefrom is at present being subjected to statistical analysis and interpretation. Similarly a statistical study is being made of hospital admissions, diagnosis and treatment. It is believed that with the fuller and more accurate knowledge thus obtained of disease incidence, the services can be adapted better to suit the needs of the population served.

12. GOVERNMENT AND VOLUNTARY SOCIETIES

55. Grateful tribute must again be paid to the various governments, universities and voluntary societies for the very generous and valuable contribution which they have made to the health programme. These were made in the form of personnel, subsidized beds in hospitals, services in out-patient and mobile clinics as well as in maternal and child health centers, assistance with immunization campaigns, medical supplies, layettes, X-ray equipment and supplementary food supplies. All such help has been of great assistance to the Agency in the operation of its extensive and complicated health services.