Annual report on the work of the Ministry of Public Health / Egypt.

MINISTRY OF THE INTERIOR, EGYPT

Department of Public Health

Annual Report on the Work of the Department of Public Health for 1931

Government Press, Bulâq, Cairo, 1934

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NOTICE

In addition to this general Report the Department of Public Health publishes reports dealing with the work of the following Sections belonging to it :—

(1) Lunacy Division.

(2) Ophthalmic Section.

(3) Public Health Laboratories.

(4) Anti-Malaria Commission.

(5) Giza Memorial Ophthalmic Laboratory.

(6) Researches Institute and Endemic Diseases Hospital.

(7) Reports and Notes of the Public Health Laboratories (non-periodical).

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MINISTRY OF THE INTERIOR, EGYPT

Department of Public Health

ANNUAL REPORT FOR 1931

INTRODUCTION

To review the state of public health during the year, and state the work achieved by the Department including the new units created, is the policy which the Department adopted year after year. The purpose at which the Department aims by publishing its yearly reports, whether general or bearing on the work of certain Sections, is to keep the public acquainted with the Department's activities and put useful data showing the result of its endeavours and experiences within the reach of interested public health authorities everywhere. The Department has also reviewed its programme of public health reform (for five years ending 1934), with a view to those projects put into force and those still awaiting execution, in order to inform the public of the ways in which the Department's share of the Government's Budget was spent.

If the issue of such reports was important in the prosperous days, it is now more important in view of the world-wide financial crisis affecting Egypt as well. The Department of Public Health is like a Board of Administrators of a big company in which every citizen is a share-holder, and the Board should render account to all these citizens especially in the present bad financial situation, when the required account should prove that every share-holder obtained the greatest possible share of benefit with the least loss.

State of Public Health

The state of public health in 1931 was nearly the same as that of the previous year. The death-rate did not exceed 25·9 per thousand population ; the birth-rate was 43·2 per thousand and that of infantile mortality was 160 per thousand. In spite of the actual financial stringency, the birth-rate is still high because Egypt being an agricultural country has an intrinsic sort of immunity to resist crises.

TABLE NO. I.—VITAL STATISTICS OF EGYPT FROM 1901 TO 1931

Years	Birth-rate per 1,000 of population		Death-rate per 1,000 of population		Infantile Mortality rate per 1,000 of births	
	Egypt	Urban Districts	Egypt	Urban Districts	Egypt	Urban Districts
1901–1905*	—	45·5	—	37·0	—	282
1906–1910*	45·9	49·4	27·0	39·1	—	296
1911–1915*	44·6	47·8	27·9	37·8	—	281
1916–1920	40·0	41·4	31·7	40·0	—	257
1921–1925	42·9	49·4	25·3	32·5	144	229
1926	43·2	50·0	26·2	33·1	146	217
1927	44·0	43·3	25·2	27·2	152	222
1928	43·3	42·3	26·2	30·3	151	237
1929	43·7	44·4	27·3	28·3	159	214
1930	44.6	45.3	24.4	25.8	151	198
1931	43.2	45.5	25.9	29·3	160	217

* These rates are for Egyptians only, as the Law of Births and Deaths did not become applicable to foreigners save from 1912.

Epidemics.—No severe epidemics outbroke during the year except cerebro-spinal meningitis and measles. Egypt is still enjoying a state of immunity against small-pox ; not a single case was recorded in the country during the whole year. The 10 cases of small-pox reported in 1931 were all imported from abroad *via* Suez.

The number of typhoid and paratyphoid cases decreased than that of last year, being 2,845 as compared with 3,136 in 1930, *i.e.* a decrease of 9·2 per cent. The death-rate amounted to 25·23 per cent of the number of cases.

Cerebro-spinal fever has largely spread in 1931 ; the number of cases amounted to 871 of which 511 ended with death (a rate of 58·6 per cent) as compared to 99 cases in 1930 and 58 deaths (a rate of 58·58 per cent).

This notable increase of cases urged the Department to trace the etiology of this dangerous disease causing high mortality and subsequent infirmities which make the patient nearly useless even when cured.

The induction made by the Department showed that the disease has not only spread in Egypt but its evils were extended to many countries in Europe and America.

The sudden outbreak of the disease has led the Department to trace its evolution during the last 15 years.

The Epidemiological Report of the Health Section of the Secretariat of the League of Nations has included the following passage about this disease in its issues of March and April, 1932 :—

" After the Epidemic outbreak of the war years in Europe and United States, during which the conditions of infection and of individual resistance were particularly favourable to the disease, the incidence of the latter decreased in a marked way in most countries of Western Europe, until about 1922 and 1923, when it reached its lowest level. Germany was an exception in that, on the contrary, it reached its maximum of 1,622 cases in 1922. Since then a progressive upward movement which reached its highest point in 1929 in Austria, Belgium, Czechoslovakia, Italy, Latavia, Lithuania, Poland and Yugoslavia. 1930 was not a year of maximum incidence in any country.

However the maximum was reached in 1931 in England, Scotland and the Netherlands. In the Union of the Soviet Socialist Republics there has been a continuous increase in the number of cases reported since 1923 ; the figures are therefore highest in the latest years for which data are available.

Leaving aside improvements which have been achieved in the diagnosis and recording of cases of cerebro-spinal meningitis, those variations make it a delicate, if not dangerous matter to undertake comparisons between countries ; these may be classified as follows according to the tendency shown by the disease in each country during the last three or four years :—

(1) Annual average increase in the neighbourhood of 40 per cent : England, Egypt, Anglo-Egyptian Sudan, Northern Rhodesia, Macao, Hong-Kong, White Russia, Ukraine.

(2) Moderate increase (annual average about 20 to 30 per cent) : United States of America, Scotland, Mexico, R.S.F.S.R.

(3) Increase without a definite tend and not exceeding an average of 10 per cent : Canada, Denmark, Germany, France, Switzerland, Austria, Italy.

(4) Decrease : Sweden, Netherlands, Poland, Hungary, Czechoslovakia, Portugal, Union of South Africa, Algeria, Japan, Shanghai, Australia.

It may be remarked that the increase or decrease of the total figures for cases in the various countries does not affect the very regular seasonal rythm of the disease, *i.e.* the occurrence of the maximum at the end of winter or the beginning of spring (March to April in the Northern Hemisphere).

In Egypt, after making brief appearances first at the end of 1908 and then at the end of 1913, cerebro-spinal meningitis took root in a permanent way in 1917 and since then has reappeared each year in the form of sporadic cases or small local outbreaks.

The number of cases, however, remained fairly low until 1929, but since then it has gone on increasing rapidly until it reached 99 cases in 1930 and 871 in 1931.

During recent years, the Anglo-Egyptian Sudan has suffered from cerebro-spinal meningitis. The disease which had reached its maximum incidence in February 1930, caused a further epidemic outbreak in May 1931. The numbers of cases were 464 in 1929, 865 in 1930 and 348 in 1931

The influence of the seasons is very clear in the Anglo-Egyptian Sudan (and also Egypt), except in Mongalla province where an epidemic outbreak occurred in August, 1930."

The above details show that the wave of the disease was not confined to Egypt only, but it influenced many other countries.

The measures taken by the Department to overcome this disease are detailed in the special chapter on Infectious Diseases. In spite of these stringent measures, it is not expected to exterminate the disease from Egypt within a single season of its incidence.

Plague.—The cases of this pest have outnumbered those of last year as they amounted to 573 of which 203 died, *i.e.* at a rate of 35·4 per cent as compared to 336 in 1930 of which 108 died at a rate of 32·7 per cent. The cause of this increase is due to the outbreak of the pest in an epidemic form in some localities such as Embaba District (Giza Province), Manfalout, Deirout and Mallawi in Assiout Province.

Typhus.—The cases of this disease amounted to 265 of which 57 only were fatal, *i.e.* a death-rate of 21·5 per cent. This was the least number of cases recorded during the last 11 years.

Measles.—The cases of this disease have also increased in 1931 than in 1930. The number reached 10,709 and that of deaths was 3,507 (a rate of 32·7 per cent) as compared with 4,470 in 1930 and 1,112 deaths. The increase is due to the fact that measles is a disease of periodical incidence once every two or three years. The number of cases of 1929 amounted to 23,265.

Influenza.—A slight increase of the cases was obvious in the year 1931. All the 5,900 cases reported were mild and the death-rate did not exceed 5·1 per cent

Diphtheria.—The cases of diphtheria were 2,165 and the deaths were 894, *i.e.* at a rate of 41·29 per cent. The Department continued the campaign against the disease by vaccinating the largest possible number of children by Anatoxin Ramon.

Malaria.—The number of patients who attended the Khanka Malaria Station was 1,332 of whom 150 were suffering from malaria. Out of this number 63 were infected with malignant malaria. The patients who attended Fayoum Station were 1,788; among these patients 402 were suffering from the disease. The 402 patients in question included a number of 47 persons suffering from malignant malaria.

These two stations continued to treat the patients of the two localities of Khanka and Fayoum from the disease.

The law for compulsory inoculation against plague, cholera and small-pox, and the modification to the law of infectious diseases dealing with carriers of typhoid and paratyphoid microbes, in connection with the compulsory isolation and observation of such persons, isolation of contacts of persons infected with anthrax, the prohibition of gathering in cemeteries, the closing of markets and inspection of houses and other premises in case of suspicion of the occurrence of infectious disease cases, were issued during 1931.

Safeguarding the Country against Imported Diseases

The work of observation of all persons arriving to the country from abroad was performed as usual by the Medical Officers of the Department. The number of persons arriving to Egypt during 1931 through the ports amounted to 31,793 of whom 99·93 per cent were put under observation. The number of persons who entered the country *via* Kantara in 1931 was 23,147 of whom 99·96 per cent were traced and observed. In the meantime, all the pilgrims of 1931 numbering 4,935 were traced and observed for the necessary period. Only 11 infectious disease cases and 25 other cases of ordinary diseases were detected amongst pilgrims of 1931. Three dispensaries were sent in company with the pilgrimage to the Holy Lands.

On the return of pilgrims and on examining their stools at Tor it was observed that some of them contain the vibrios agglutinating with cholera serum; consequently the pilgrimage was considered as " brut " and the necessary measures were taken in conjunction with Quarantine Board for isolating all suspected persons and those arriving from Hedjaz to the East Coast of the Red Sea and Sinai Peninsula, in case these persons were not observed for the necessary period at Tor. These measures were successful in saving the country from the peril of the disease.

In view of the outbreak of cholera in Iraq and the Persian Gulf, the usual measures were taken in the same way as last year when cholera outbroke at Bombay. The importance of the precautions taken, which led to the safeguarding of the country, cannot be exaggerated as the distance between Iraq and Egypt is traversed by aeroplanes in less than 24 hours and by motor-cars in 40 hours.

Child and Maternity Welfare

A new Child Welfare Centre was created at Menouf and the Dayas School at Shebin el Kom was transferred thereto. Another centre was also established by Mansûra Municipality in conjunction with Dakahlîya Provincial Council and was placed under the direction of the Department. The two travelling hospitals of Benha and Giza were converted into Child Welfare Centres and thus the programme of conversion of such hospitals is now being accomplished.

A new Dayas School will be created and annexed to Giza Child Welfare Centre. This work is expected to be completed at the beginning of 1932.

The work of Child Welfare Centres has largely increased. The number of births attended by these centres amounted to 24,692, as compared to 17,758 in 1930, *i.e.* an excess of 39 per cent. The new pregnants who attended during this year were 34,379 as compared to 29,451 in last year, with an increase of 13·6 per cent.

The benefits of the centres have become self-evident by the rush of pregnants and mothers to hear the lectures given at these centres. The audience of the centres are so affected by the lectures that they echo between their relations and kinsfolk the advices they hear.

As a result of the activity of the Child Welfare Centres, the infantile mortality greatly decreased; the deaths of infants in the first month of life did not exceed 374 amongst a total number of 24,692 births, *i.e.* the death-rate was only 15 per thousand as compared with 22 per thousand in 1930. Also the cases of puerperal fever fell from 22 in 1930 to 14 in 1931. The deaths of mothers as a result of delivery did not exceed 0·5 per thousand while such rate was twice as much in 1930.

The students of medicine are trained in midwifery in the Child Welfare Centres and are actually under practice in the two centres at Shoubra and Darb el Ahmar, instead of one centre, as the number of such students has been doubled.

Social Hygiene and Endemic Diseases

Bilharziasis and Ankylostomiasis

Thirteen Ankylostoma units were provisionally located in District Hospitals during the year, and the two Ankylostoma annexes located in Mallawi and Barreem general hospitals were detached therefrom and converted into travelling Ankylostoma units.

For reasons of economy due to the financial crisis, the Ankylostoma Hospital at Zagazig was handed over by the Sharqîya Provincial Council to the Department of Public Health. At the same time, the Ankylostoma annex at Esna was abolished owing to the small percentage of population requiring treatment there and the staff was transferred to Zagazig Hospital.

The number of new patients who attended the branches of the Endemic Section for treatment of Bilharzia and Ankylostoma was 664,303 as compared to 748,082 in 1930; the percentage of decrease is therefore 11 per cent.

Although no decisive method for the destruction of the intermediary host (snails) has been discovered, yet the work accomplished by the Bilharzia and Ankylostoma units has resulted in diminishing the surgical Bilharziasis, vescical calculi, and urinary fistulae.

A study of the statistics of the General Hospitals of Egypt in the last seven years will reveal the fact that the cases of surgical Bilharziasis has dropped to the eighth, and that of vescical calculi and urinary fistulae has diminished to one third of their former incidence.

Leprosy

Two new Leprosy Clinics were inaugurated during the year: one in Tanta and the other at Minya.

The in-patients section of the Leprosy Clinic, Cairo, was equipped during the year for the accommodation of in-patients. It was therefore converted into a hospital.

The construction of the Leprosy Hospital and Colony at Abu Za'bal was completed and it is expected to be inaugurated in the coming year.

The total number of patients who attended the Leprosy clinics during the year 1931 amounted to 1,472 as compared to 1,015 in 1930, *i.e.* an increase of 45 per cent.

Chest Diseases Dispensaries

X-Ray apparatuses have been installed in the two chest diseases dispensaries at Cairo. A piece of land was offered by Daqahlîya Provincial Council to the Department of Public Health for the construction of a chest diseases dispensary.

The number of patients treated in the chest diseases dispensaries amounted to 22,014 during 1931 as compared to 7,750 in the previous year. The increase was therefore 184 per cent.

593 visits were paid during the year by the nursing staff of the chest diseases dispensaries to houses of patients suffering from pulmonary tuberculosis. The object of these house visits is to ascertain that the advices given to the patients by the dispensary staff is carried out.

Ophthalmic Hospitals

A new Ophthalmic Hospital at Matarîya Village (Daqahlîya Province) was opened this year.

Two new ophthalmic branches: one at Demerdash Hospital, Abbassîya, Cairo, and the other at Luxor Hospital, were also opened for treatment this year. The number of the ophthalmic units amounted now to 49, 35 of which are permanent and the rest, *i.e.* 14 travelling.

The new patients amounted to 634,088 as compared to 526,400 last year, an increase of 20 per cent. The number of operations shows also an increase of 5 per cent, *i.e.* 220,823 this year as compared to 209,662 last year. The number of visits of the outpatients was 5,023,175, while it did not exceed 4,350,062 in 1930, an increase of 15 per cent.

Lunacy Division

The number of new admissions to both Abbassîya and Khanka Hospitals has slightly increased; the total admissions amounted to 1,728 as compared to 1,696 in 1930, *i.e.* an increase of 1·9 per cent. 497 not insane drug addicts were admitted for treatment, thus increasing the total number of persons admitted during the year 1931 to 2,225.

Venereal Diseases

The number of in-patients treated in Government Hospitals amounted to 5,464 and that of outpatients was 42,024. The Department is making every possible effort for combating these diseases by lectures, propaganda and projection of films showing the dangers of venereal diseases to human beings at the different stages of life (fœtus, minor and adult), by distributing pamphlets, etc.

The number of hospitals dealing with venereal diseases has become relatively sufficient for the purpose and these hospitals are now in a position as to give full accommodation and treatment to the patients. These hospitals are at present within the reach of the inhabitants of capitals of Mudiriyas, Governorates and chief towns (Bandars) of districts and large villages.

The number of the above-mentioned hospitals now existing reached 93 and the number of venereal diseases clinics amounted to 14.

General Treatment Institutions

The Demerdash Hospital, Cairo, was inaugurated in 1931 as well as 13 new district hospitals ; the number of this type of hospitals thereby became 37. Seven new village hospitals were also opened during the year, increasing the number of these hospitals to 34.

The total number of all general, district and village hospitals is now 93.

The number of beds in all these treatment institutions was 4,695 showing an increase of 703 with a percentage of 15 per cent.

The number of in-patients treated in hospitals amounted to 95,765 during 1931 as compared to 85,311 in last year, showing an increase of 12 per cent. The number of new out-patients was 1,649,456 as compared to 1,148,178 with an excess of 43·6 per cent, and the total of the visits of these patients to the outpatients departments amounted to 3,623,050 as compared to 2,523,928, showing a remarkable excess of 43·55 per cent. The total number of patients treated in the outpatient, village and travelling clinics during the year was 376,391, while it did not exceed 163,125 last year, with an increase of 130·7 per cent, and the number of visits of patients to these clinics amounted to 783,501 as compared to 335,495 in 1930, showing an excess of 133·5 per cent.

The number of operations performed during the year 1931 in the in-patients sections of the hospitals above referred to amounted to 36,542, and those performed in the out-patients departments were 20,608, *i.e.* a total of 57,150 with an increase of 65·5 per cent as compared to last year's number which did not exceed 34,516.

The number of X-ray examinations amounted to 25,150 as compared to 19,018 in 1930, showing an increase of 32·2 per cent.

The percentage of deaths occurring in the in-patients sections of hospitals did not exceed 5·7 per cent in spite of the fact that a fairly big number of patients is admitted either in death agony or in hopeless state.

The total expenditure for the upkeep of the hospitals in question during the year was L.E. 326,336 and 866 milliemes including that of Hod el Marsûd and Gabbari Lock Hospitals as compared to L.E. 273,440 last year, *i.e.* an increase of 19·3 per cent. The daily expenditure per patient reached 228 milliemes with an increase of 19 milliemes as compared to last year. This increase is attributed to the fact that the hospitals opened during the year were still being equipped and the old hospitals were also furnished with modern instruments and appliances. Specialists were as well appointed in order to treat patients according to the new methods.

The number of days of treatment of both the in- and outpatients in the Frontier Districts Hospitals and Public Health Offices amounted to 145,170 during the year 1931. 8,168 outpatients were also treated in the pharmacies attached to the district public health offices as compared with 13,338 in last year. This marked decrease is due to the fact that many village hospitals were established entailing the abolition of 40 pharmacies of this kind.

During 1930 there were 87 pharmacies in localities where no private pharmacies, hospitals or clinics existed for dispensing the necessary drugs to patients; but as the district and village hospitals were constructed, 40 of these pharmacies were closed and 47 only still exist.

The Department has approved of the installation of seven new pharmacies in 1931 (of which one is owned by a foreigner and the remainder by local subjects). As a result of inspection of pharmacies and drug stores the Department brought up 120 contravention cases before the courts (of which 35 for illegal trade in poisonous substances, 4 for trading in adulterated drugs, 19 for illegal practice of pharmacy, and 21 against pharmacists who have contravened the law, 3 against persons trading in unregistered specialities and the remainder for illegal trading in simple drugs). Also 5 delicts were brought up for contravening the law on trading and use of stupefacient drugs (of which 2 against pharmacists).

Technical Researches

The number of specimens analysed in the Department's Laboratories in 1931 was 179,139 as against 156,805 in last year (*i.e.* an increase of 14·2 per cent).

Dr. D. Riding of the Wellcome Research Laboratories, Khartoum, was appointed as Sub-Director, Public Health Laboratories ; and Dr. B. R. Sandiford was appointed as Chief Bacteriologist in place of Dr. L. J. Davis who had retired.

The Bacteriological Laboratory at Mansûra was inaugurated in January 1931 and also the Bacteriological Laboratory attached to Alexandria Hospital in September 1931. Faiyûm Bacteriological Laboratory will be inaugurated in 1932, also the Minya Laboratory is expected to be inaugurated in the same year. The Researches Section has been transferred to the new building constructed for it and for the Endemic Diseases Hospital, near Qasr el Ainy Hospital. Also the Field Sanitary Engineering Section has moved to the old building of the Antirabic Institute, near the Central Administration of the Department.

The Government, in response to the call of the League of Nations in aid of China during the catastrophe of the inundation of one of its rivers, has sent a Bacteriological Mission to Shanghai, composed of a Bacteriologist and 2 trained Laboratory Assistants, provided with a mobile Bacteriological Laboratory and with a large quantity of the anticholera and calf lymph vaccines. This mission left Egypt in the middle of December 1931 in order to take over its duties there for three months at least.

The new building of the Antirabic Institute and Hospital near Qasr el Ainy Hospital to accommodate 130 patients has been completed and commenced to accept patients in December 1931 ; it is expected to be officially inaugurated at the beginning of the year 1932 when it will be completely equipped.

The Pathological Laboratory at Cairo has proved, for the second time, the existence of myoma of the bladder with sarcomatous changes. Bilharzial ova were found in this sarcoma ; no previous account of similar tumours was recorded in the pathological literature.

The Researches Section carries out researches in diseases due to parasitological worms, such as bilharzia and ankylostoma, and diseases caused by unicellular parasites, such as malaria, amœbic dysentery, and in medical insects such as mosquitoes, fleas, flies, as well as the lice which convey typhus and relapsing fevers. The Biochemical Section undertakes researches in several subjects such as the study of the blood changes and excretions caused by the various endemic diseases and the nature and action of new drugs used in treating these diseases. It also supervises the Endemic Diseases Hospital for the purpose of studying the clinical manifestations of these diseases, investigating the methods of their treatment and compiles the statistics necessary for these purposes.

The Section has actually carried out researches in El Dakhla Oases, etc., regarding prophylaxis against bilharzia ; it has also carried out researches on blood changes caused by bilharzial infection, and for making sure of the existence of immunizing bodies which prevent reinfection with bilharzia. Other researches were carried out regarding the elements that affect the growth of snails, and the biological testing of carbon tetrachloride for the treatment of ankylostoma.

The Biochemical Section has carried out researches on the serum globulin in human schistosomiasis, also the chemical examination of samples of carbon tetrachloride, and carried out tests on the organic substance known as Hexylresorcinol and its use as anthelmintic acting against ascaris and ankylostoma, the effect of hypodermic injection with extract of worms for the purposes of diagnosing bilharzia and has definitely proved that " culex pipiens " is the intermediate host of filaria bancrofti in the village of Kafr Ghatati (Embaba District) during an investigation upon malaria and filaria in this village.

The Institute has given a course of lectures and demonstrations on bilharzia and ankylostoma to 44 preachers so that they would conduct health propaganda against these diseases among the inhabitants.

This Section has issued during 1931: 15 scientific articles which have been published in scientific magazines on various subjects regarding endemic diseases.

The Department of Public Health has submitted a study on deficient nutrition and the extent of its effects on the bodily and mental power ; this study was undertaken at the request of the Ministry of the Interior and H.E. the Minister of the Interior has kindly submitted its result to the Council of Ministers. The Council approved of the proposals

H.E. the Minister submitted in connection with this study, and recommended that care should be taken of this subject, that propaganda in this connection should be made by all possible means and that the necessary funds should be provided for.

A comprehensive study regarding longevity and rejuvenation has been made and the Under Secretary of State has delivered a speech on this subject at the Egyptian Scientific Institute for spread of public culture. This subject has been printed in full in the volume of the said scientific Institute for 1931.

The Department has adopted the principle of replying to all questions addressed thereto either from individuals or from communities.

Memorial Ophthalmic Laboratory

The scientific work of the laboratory has been conducted on similar lines to those of preceding years.

(1) Post-graduate courses in ophthalmology were given and in the examinations which were held at the close of the two sessions the candidates acquitted themselves on the whole with credit.

(2) The routine pathological work of the laboratory is ever assuming larger proportions, more specimens having been examined during this year than in any previous year. Unfortunately, however, this increase of work reduces correspondingly the amount of time which the Assistant Pathologist has for studies of a research nature.

(3) Slightly fewer patients have been referred to the laboratory for clinical investigation. This is undoubtedly due to the fact that the Government Ophthalmic Hospitals in Cairo have recently been well equipped with the more modern scientific instruments for the examination of the eye. Those cases, however, which present unusual difficulty still continue to be sent to the laboratory for further investigation.

(4) In the Research Section of the work of the laboratory the problems associated with trachoma continue to occupy principal consideration. These include both bacteriological, clinical and therapeutic studies. During the year facilities for studying American-Indian trachoma were afforded while the Director of the Laboratory was on mission in U.S.A.

The Sanitary Institute

The Institute is still graduating sanitary overseers (moawens). This year, during the two sessions, 18 moawens have been graduated, as against 11 during the last year. The number of moawens hitherto graduated from the Institute has, therefore, reached 29.

Medical Professions and Missions

The number of medical practitioners authorized to practise medicine in 1931 was 207 (*i.e.* with an increase of 120 over last year); the number of veterinary surgeons 24 (*i.e.* with an increase of 14 over last year) ; the number of dentists 47 (an increase of 29), pharmacists 27 (increase of 9), assistant pharmacists 6 while they were 16 last year (*i.e.* a decrease of 10), and the number of Mowallidas (midwives) 70 (increase of 60).

74 medical men submitted to the Government examinations and 53 passed with success (of whom 38 Egyptians), *i.e.* a percentage of 71 while the percentage last year was 76; 14 pharmacists submitted to the exmination of whom 4 Egyptians and 1 foreigner passed with success (*i.e.* a percentage of 35 this year in the case of Egyptians, while last year it was 58).

37 dentists submitted to the examination of whom 6 Egyptians and 7 foreigners passed with success (*i.e.* a percentage of 35).

The Department has authorized 212 *dayas* and 2 barbers to practise their profession and granted eight certificates in nursing to female nurses on completion of their course of study.

The Department has sent 5 medical officers on mission abroad to specialize in the following subjects :—

Branch	Number of specialists
Bacteriology	1
Vital statistics and epidemiology...	1
Pathology and bacteriology of the eye ...	1
Treatment of surgical tuberculosis	1
Leprosy	1
TOTAL	5

If we add this number 5 to the members of the Department's staff previously sent on mission abroad, the total will be 98.

Moreover 4 medical officers were attached to the Egyptian Medical Faculty to study public health and tropical medicine, in addition to the 4 medical officers undergoing the same course in 1930, bringing their total to 8.

THE BOARD OF HEALTH

The Board of Health, the constitution of which was referred to in the last year's Report, held two meetings during the year under review.

The first meeting was held on February 5, 1931, to consider the measures to be taken against influenza in view of its appearance in a severe form in Europe; the members unanimously agreed to the measures taken by the Department of Public Health.

The second meeting was held on March 14, 1931, to consider the measures necessary to be adopted in the campaign against cerebro-spinal fever. The members unanimously agreed to the pamphlet printed by the Department of Public Health showing the symptoms of the disease and the methods of combating and treating it, and requested the Department to circulate this pamphlet to all doctors to be guided thereby.

NEW INSTITUTIONS

The following branches have been inaugurated this year :—

2 Child welfare centres.
2 Leprosy clinics.
1 General hospital.
13 District hospitals.
7 Village hospitals.
13 Ankylostoma and bilharzia units attached to district hospitals.
1 Ophthalmic hospital.
2 Branches for ophthalmic treatment.
2 Travelling hospitals for children transformed to permanent centres.
2 Branches for the treatment of ankylostoma and bilharzia converted into hospitals.
1 Leprosy clinic converted into hospital.

46 Total.

The number of institutions inaugurated last year was 68. The decrease in this year's number is due to the present economic circumstances. Yet the Government did its best to continue the carrying out of the programme of sanitary reforms, so that it was possible to inaugurate such a great number of branches.

Health Legislation

During this year, the following laws and arrêtés were issued :—

(1) Law No. 52 of 1931, amending Law No. 15 of 1912, whereby articles were added giving powers for the isolation of carriers of typhoid and paratyphoid germs, the prohibition of meetings in tombs and cemeteries, the closure of markets of foodstuffs, cattle and other markets, inspection of habitations and other places, where it is doubted that there exist cases of the infectious diseases shown in Section I of the schedule annexed to the amended law above-mentioned; also adding a provision whereby contacts of cases of malignant pulmonary anthrax should be isolated.

(2) Law No. 109 of 1931, regarding compulsory vaccination against plague, cholera and smallpox.

(3) Ministerial *arrêté* dated February 13, 1931, regarding procedure to be followed in regard to the cases dealt with by the Higher Medical Council.

(4) Ministerial *arrêté* dated May 31, 1931, regarding removal of all *sebils*, basins and *ziers* and converting them into fountains where water is driven upwards.

(5) Ministerial *arrêté* dated December 14, 1931, amending the table of stupefacient drugs annexed to Law No. 14 of 1929.

The preparation of the following two project laws has been completed pending their being issued :—

Project amendment to Decree-Law No. 14 of 1929 *re* practising pharmacy and trading in poisonous substances.

Project Law *re* practising midwifery and other professions connected with medicine ; this project law is still under study by a special committee constituted for this purpose.

International Hygiene and Congresses

The Under Secretary of State has attended the meeting of the Permanent Committee of the "Office International d'Hygiène Publique, Paris "on May 11, 1931, as a representative of the Egyptian Government. Egypt submitted to the said Committee several notes (shown hereunder) which were met with satisfaction and had a good reflection on the country and on the active members of the Department's staff ; these notes being submitted in the names of their respective authors, so as to be known by the scientists in the various countries :—

I.—One of these notes was on the subject of the present organization of the Department of Public Health in Egypt, and was prepared at the request of the French Ministry of Foreign Affairs for addition to details on the organization of the Health Administrations in the different countries.

II.—Note submitted regarding the medical and health activities displayed by the Department of Public Health from 1923 to the end of 1930.

III.—Note regarding paralysis subsequent to the treatment of rabies.

IV.—Note regarding the characteristics of agglutination of the cholera vibrio.

V.—Note regarding the purification of calf lymph vaccine with caoline.

VI.—Note regarding criticism on the procedure of notification of infectious disease cases at present adopted by the Health Section of the League of Nations.

Moreover the following notes were submitted to the Committee in its session of October 1931 :—

I.—Note regarding prophylactic measures to be taken against psittacosis.

II.—Note regarding international transport of biers containing corpses, and measures to be taken in regard to them.

III.—Note regarding international deratisation of ships.

IV.—Note regarding anti-plague inoculation.

V.—Note regarding progress of plague at Alexandria (from 1889 to 1929).

VI.—Note regarding the phenomenon of agglutination of the cholera vibrio.

It is concluded from the above that Egypt, as represented by the Department of Public Health, has become a part of a Health League of Nations of great importance to the world, especially if we consider the unique geographical situation of Egypt for which it has become a landing station for aeroplanes arriving from the various countries and especially from the southern eastern countries where cholera and yellow fever are endemic; the danger resulting from this fact is clear, taking into consideration that there is only one source of water supply to the country (*i.e.* the Nile).

During the year, the International Convention *re* standardization of methods of laying down the result of analysis of human and animal food has been agreed to ; this convention has already been studied by a committee on which the Department of Public Health and the Medical Faculty have been represented.

The Egyptian Government has been invited to 27 Medical and Health Conferences during the year. The Department actually cooperated in seven of these conferences and was represented by delegates from the Egyptian Legations in five congresses. The Under Secretary of State represented the Department on the congress *re* organisation of the sanitary measures regarding pilgrimage held at Paris on May 1, 1931, in which he attended as a Plenipotentiary Delegate of the Egyptian Government. The Technical Secretary, Department of Public Health, attended the congress of the *Journées Médicales* for the colonies, held at Paris from 22nd to 31st July 1931. He submitted a note on the relation of enteritis to enteric fevers in children. He also attended the Paris Congress for labourers accidents and diseases held at Geneva (from August 3 to 8, 1931) with Mr. R. M. Graves, the Director of the Labour Bureau, Ministry of the Interior. All the delegates submitted reports on these congresses.

Moreover, the Department furnished many health and scientific foreign bodies in the various countries with the technical data and statistics they required; various articles were also published in the scientific magazines in Egypt and abroad and some papers were read in the Egyptian Bacteriological Society in its meeting in 1931.

It may be mentioned that the Department of Public Health cooperated in the Agricultural and Industrial Exhibition of the Royal Agricultural Society held on February 15, 1931. The Department has availed itself of this opportunity and installed a Public Health Section, where it revealed the progress attained in public health matters.

The Department has also carried out public health propaganda among the considerable number of people who frequented the exhibition from all parts of Egypt. The Department is glad to mention that its exhibits were met with ultimate success and that it had been awarded the Golden Medal by the Direction of the said exhibition in appreciation of its efforts.

The Under Secretary of State takes this opportunity to record his appreciation of the valuable efforts displayed by the officials of the Department in helping him towards this difficult task.

Cooperation with other Ministries and Departments

The following is a statement showing the most important Committees which were constituted or had already been constituted for the consideration of some important questions and to which representatives of the Department attended, with members of other Ministries, during 1931 :—

(1) Committee for studying the project of Aerial Navigation Convention, composed of representatives of the Department of Public Health and the Ministries of Finance, Communications and the Interior, and the International Quarantine Board of Egypt.

(2) Committee to grant authorizations to Etablissements Insalubres, Incommodes et Dangereux, under the presidency of the Under Secretary of State, Ministry of the Interior, and composed of the Director, Labour Bureau, and representatives of the Department of Public Health, the Mechanical and Electrical Department, and of the Labour Bureau.

(3) Water Board which was constituted in the year 1926, of the Directors of the Public Health Laboratories, the General Sanitation Section, and the Municipalities and Local Commissions Section, the Health Expert, D.P.H., the Principal Medical Officer of Health, Cairo City, the Chief Sanitary Engineer and a delegate of the Contentieux.

(4) Consultative Committee for Municipalities and Local Commissions under the presidency of the Under Secretary of State, Ministry of the Interior, and composed of the Director of Municipalities and Local Commissions Section, Ministry of the Interior, Director, General Sanitation Section, Department of Public Health, Director, Tanzim Department and the Financial Secretary of the Ministry of the Interior.

(5) The Cairo Mohammedan Cemeteries Committee, constituted in accordance with the Law No. 1 of 1922, under the presidency of the Governor of Cairo and composed of a Medical Officer of the Department, a Tanzim engineer of the Public Works Ministry, one of the *ulemas* of the Ministry of Justice, an official of the Ministry of Waqfs and six notables.

(6) Anti-Malaria Committee under the presidency of the Under Secretary of State, Ministry of the Interior (D.P.H.) with members representing the Ministries of Agriculture and the Interior, and the Departments of Public Health, Irrigation, Drainage, Railways and the President of the Contentieux of the Government.

(7) Committee constituted for the study of the question of International transport of biers containing corpses, composed of the Technical Secretary, Department of Public Health, Director, General Sanitation Section (D.P.H.), the Principal Medical Officer of Health, Cairo, and a delegate of the Egyptian State Railways.

(8) Committee *re* equivalence of foreign diplomas in medicine constituted in virtue of Decree-Law No. 66 of 1928 *re* the practice of medicine in Egypt, of the Dean and the Professor of Clinical Surgery of the Faculty of Medicine, the Technical Secretary (D.P.H.) and the Director, Medical Permits Section, Department of Public Health.

(9) Committee *re* equivalence of foreign diplomas in pharmacy constituted by Ministerial *arrêté*, in virtue of Decree-Law No. 14 of 1929, of the Dean and Professor of Clinical Surgery of the Medical Faculty, the Technical Secretary (D.P.H.), and the Director of Medical Permits Section, Department of Public Health.

(10) Committee for organizing the fruit and vegetable wholesale market situated at Sharia El Maleka Nazli and Sharia El Madbouli, composed of delegates of the Department of Public Health, of the Department of Commerce and Industry and of the State Buildings Department.

(11) Committee to study the means to remedy deficiency in nutrition in Egypt, composed of delegates of the Department of Public Health, the Ministry of the Interior and the Ministry of Education, to examine the report submitted on this subject by the Departmentof Public Health, and to which reference has already been made under Technical Researches.

Civil Status of the Population in Chief Towns of Mudirîyas and Governorates

Marriage and Divorce Statistics

The Census and Statistical Department has, for the first time, compiled valuable statistical tables showing the incidence of marriage in the chief towns of Mudirîyas and Governorates of Egypt and its rate per thousand to the population, as well as tables for the incidence of divorce and its rate per cent of marriage contracts for one year (from July 1, 1930 to the end of June 1931).

Tables II and III show the summary of marriage statistics.

The marriage rate of 26·2 per thousand population in chief towns of Mudirîyas and in Governorates, as compared with that in the following countries (wherein marriage statistics were made for the year 1930), proves that Egypt is to be considered in the first category of countries of the world with regard to tendency to marriage. Such rates reached 8·3, 8·8, 7·7, 8·7, 7·9, 7·1, 8·, 7·8, 7·9, 6·8, 7·7, 7·9, 9·3 and 6·4 per thousand population in France, Hungary, Austria, Germany, Japan, Italy, Netherlands (Holland), New Zeeland, England, Wales, Scotland, Portugal, Switzerland, Chily and Norway, respectively.

tables IV and V show statistics of cases of divorce occurring in chief towns of Mudirîyas and Governorates.

TABLE No. II.—DISTRIBUTION OF MARRIED MEN AND WOMEN FOR THE YEAR COMMENCING FROM JULY 1, 1930 TILL END OF JUNE 1931, ACCORDING TO: (1) CIVIL STATE; (2) AGE OF MOHAMMEDANS ONLY IN GOVERNORATES AND PROVINCES CAPITALS

Localities	Estimated Population till 1-7-1931	Civil state (1)									Total number of persons married: Males and Females	Married rate per 1000 population *	Age (2)											
		Married men						Married women					Married men						Married women					
		Not previously married	Divorced	Widowers	Married persons having One wife	Two wives	Three wives	Not previously married	Divorced	Widows			Less than 20 years	20–29	30–39	40–49	50–59	60 and upwards	Less than 20 years	20–29	30–39	40–49	50–59	60 and upwards
Governorates	1,642,400	10,504	8,046	1107	1867	95	10	9,847	10,631	1,151	43,258	26·3	766	11,427	6152	2201	793	290	8959	8535	3015	922	177	21
Lower Egypt (Bandars) ...	302,600	1,755	1,237	270	496	40	1	1,725	1,813	261	7,598	25·1	190	1.961	1015	400	145	88	1455	1543	554	193	43	11
Upper Egypt (Bandars) ...	252,700	1,490	1,125	281	409	42	—	1,581	1,559	207	6,694	26·5	181	1,651	899	388	162	66	1544	1153	480	124	38	8
GRAND TOTAL ...	2,197,700	13,749	10,408	1658	2772	177	11	13,153	14,003	1,619	57,550	26·2	1137	1,539	8066	2989	1100	444	11958	11231	4049	1239	258	40

* Half this number is the marriage rate per thousand population.

TABLE NO. III.—SHOWING A COMPARATIVE DISTRIBUTION FOR THE THREE RELIGIONS OF MARRIED MEN AND WOMEN DURING SIX MONTHS FROM JANUARY 1, 1931, TILL END OF JUNE 1931, ACCORDING TO : (1) CIVIL STATE ; (2) AGE FOR ALL GOVERNORATES AND PROVINCES CAPITALS ONLY

RELIGION	Estimated Population till 1-7-1931	Civil State (1)									Total number of married persons : Males and Females	Married persons rate per 1000 population*	Age (2)											
		Married men						Married women					Married men						Married women					
		Not previously married	Divorced	Widowers	Married persons having			Not previously married	Divorced	Widows			Less than 20 years	20-29	30-39	40-49	50-59	60 and upwards	Less than 20 years	20-29	30-39	40-49	50-59	60 and upwards
					One wife	Two wives	Three wives																	
Mohammedans	2,197700	6028	4810	731	1273	51	5	5703	6465	730	25796	23·5	419	6698	3746	1336	494	205	5125	5230	1822	575	124	22
Christians :—																								
Orthodox	334500	843	14	63	—	—	—	877	8	35	1840	11	23	575	231	71	15	5	450	394	59	11	5	1
Catholics	50500	80	—	8	—	—	—	83	—	5	176	7	6	43	30	5	3	1	34	46	1	1	—	—
Protestants...	17400	16	—	7	—	—	—	21	—	2	46	5·3	1	9	8	4	1	—	10	9	3	1	—	—
Jews	63800	221	18	15	—	—	—	229	15	10	508	15·9	1	159	68	18	8	—	81	143	24	6	—	—
GRAND TOTAL	2,663900	7188	4842	824	1273	51	5	6913	6488	782	28366	21·3	450	7484	4083	1434	521	211	5700	5822	1915	594	129	23

* Half this number represents the marriage rate.

TABLE No. IV.—SHOWING THE NUMBER OF CASES OF DIVORCE
ACCORDING TO: (1) MARRIAGE PERIOD; (2) NUMBER

(*Mohammedans*) *in Governorate*

LOCALITIES	Total number of marriage certificates	(1) Marriage duration							Percentage of Certificates	Cases of divorce: Total	(2) Number of Children						
		Less than one year	1–4	4–9	10–14	15–19	20–24	25 and upwards			No sons	One son	Two sons	Three sons	Four sons	Five sons	More than 5 sons
Governorates ...	21,629	4719	4430	1497	574	195	165	132	11,712	54·1	8379	1676	771	418	203	76	1
Lower Egypt (Bandars) ...	3,799	856	695	248	64	20	41	22	1,946	51·2	1439	253	119	57	32	18	
Upper Egypt (Bandars) ...	3,347	509	570	247	75	37	12	9	1,459	43·6	951	251	115	62	25	28	
GRAND TOTAL...	28,775	6084	5695	1992	713	252	218	163	15,117	52·5	10769	2180	1005	537	260	152	2

TABLE No. V.—SHOWING COMPARATIVE DISTRIBUTION OF CASES OF DIVORCE DURIN
ACCORDING TO: (1) MARRIAGE PERIOD; (2) NUMBE

RELIGION	Total number of marriage certificates	(1) Duration of Marriage							Total number of cases of divorce	Percentage of marriage certificates	(2) Number of Children						
		Less than one year	1–4	5–9	10–14	15–19	20–24	25 and upwards			No sons	One son	Two sons	Three sons	Four sons	Five sons	More than 6 sons
Mohammedans	12,898	2832	2687	872	360	121	102	89	7,063	54·8	5015	1043	463	246	121	69	1
Christians:—																	
Orthodoxes ...	920	33	15	10	1	1	2	—	62	6·7	55	4	3	—	—	—	—
Protestants ...	23	—	1	—	—	—	—	—	1	4·3	1	—	—	—	—	—	—
Jews	254	5	5	5	6	3	2	1	27	10·6	16	6	1	1	2	—	
Grand Total...	14095*	2870	2708	887	367	125	106	90	7,153	50·7	5087	1053	467	247	123	69	1

* Excluding Catholics' marriage certificates as they prohibit divorce.

E PERIOD FROM JULY 1, 1930 TO JUNE 30, 1931
CHILDREN ABANDONED ; (3) CAUSES OF DIVORCE.

d chief towns of Provinces :—

		(3)																	
		Causes of Divorce																	
		Husband						Wife							Both Husband and Wife					
	wife	Ill treatment	Poverty	Marrying another	Intoxication	Stupefacients	Gambling	Neglecting the husband	Bad Conduct	No offspring	Disease	Disobedience to husband	Unfaithfulness	Negligence	Inadhesion to conditions	Quarrel	Hatred	Disagreement	Bad company	Other causes
5	274	499	117	168	3	10	2,733	108	296	30	82	77	309	1,040	890	56	3,906	734	195
5	52	86	49	16	5	1	435	41	29	—	10	5	71	98	82	41	640	122	68
4	39	55	23	5	3	—	213	16	23	1	6	2	179	40	206	7	504	67	26
4	365	640	189	189	11	11	3,381	165	348	31	98	84	559	1,178	1,178	104	5,050	923	289

6 MONTHS PERIOD COMMENCING FROM JANUARY 1, 1931 TILL JUNE 30, 1931
CHILDREN ABANDONED ; (3) CAUSES OF DIVORCE.

	(3)																		
	Causes of Divorce																		
	Husband						Wife						Both Husband and Wife						
	Ill treatment	Poverty	Marrying another	Intoxication	Stupefacients	Gambling	Neglecting the husband	Bad conduct	No offspring	Disease	Disobedience to husband	Unfaithfulness	Negligence	Inadhesion to conditions	Quarrel	Hatred	Disagreement	Bad company	Other causes
184	334	111	52	11	11	1,462	77	134	13	35	41	255	472	346	104	2,275	923	95
23	—	—	1	—	—	—	—	—	—	—	25	1	—	—	2	6	—	4
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
—	6	—	—	—	—	—	—	—	—	—	—	—	—	—	3	15	—	3
207	340	111	53	11	11	1,462	77	134	13	35	66	256	742	346	109	2,296	923	103

CHAPTER I

PUBLIC HEALTH

(A) *State of Public Health.*

The estimated semestrial population of Egypt in 1931 was 15,381,800 with an increase of 325,500 than last year.

As already stated in previous reports, the only way open before the Department for forming an opinion as to the state of public health in the country is the death returns made during the year, for it cannot base this opinion on the causes of deaths before the establishment of sanitary offices in all localities of the country, when it will be possible for the Medical Officers of these offices to examine all deaths and determine their real causes.

(B) *Births and Deaths.*

(1) Births

The number of births registered in the whole country amounted to 664,946, at a rate of 43·2 per thousand population as compared to 44·6 in 1930. The highest birth rate was at Giza Province, *i.e.* 54·9 per thousand, against 55·6 in the same province in last year.

The lowest birth rate was, as last year, at Behera Province for it did not exceed 36·6 per thousand as compared to 37·3 per thousand in 1930.

The number of births in towns and bandars (chief towns) reached 119,846, a rate of 45·5 per thousand. The highest birth rate was at Geziret Sêud (71·2 per thousand) and the lowest was at Kom Ombu (15 per thousand).

The birth rate in Upper Egypt is still higher than in Lower Egypt, as it is 44·5 per thousand in the former and only 41·9 per thousand in the latter.

(2) Deaths

The total number of deaths all over Egypt was 397,706, *i.e.* a rate of 25·9 as compared to 24·9 per thousand population in last year.

The highest death rate was, as last year, at Giza Province, where it reached 35 per thousand ; and the lowest was at Qena Province where it did not exceed 19·2 per thousand.

The total number of deaths in towns and bandars (chief towns) was 77,243, a rate of 29·3 per thousand. The highest rate was 53·8 at Embaba, and the lowest was, as last year, at Port-Fouad, where it did not exceed 6·1 per thousand.

The following table No. VI shows the births and deaths in the various parts of the country in the year 1931 :—

Table No. VI

	Estimated Population.	Births.		Deaths.		Infantile mortality.	
	Middle of 1931.	Number.	Rate.	Number.	Rate.	Number.	Rate.
Governorates :—							
(1) Urban (cities only)* ...	2,004,700	88,272	44·0	56,140	28·0	19,051	216
(2) Urban and Rural ...	2,142,900	94,345	44·0	59,192	27·6	19,938	211
Lower Egypt :—							
(1) Urban (*bandars* only)†.	321,200	15,431	48·0	9,733	30·3	2,847	184
(2) Urban and Rural ...	7,107,100	297,952	41·9	184,247	25·9	42,759	144
Upper Egypt :—							
(1) Urban (*bandars* only)†.	309,300	16,143	52·2	11,370	36·8	4,077	253
(2) Urban and Rural ...	6,131,800	272,649	44·5	154,267	25·2	43,722	160
Egypt :—							
(1) Urban (cities and *bandars*)	2,635,200	119,846	45·5	77,243	29·3	25,975	217
(2) Total (all over Egypt).	15,381,800	664,946	43·2	397,706	25·9	106,419	160

* Governorates only. † Chief towns of Provinces only.

(3) Diseases causing Death

The following table No. VII shows the number of deaths and the diseases causing them in the towns and bandars (chief towns) where health offices exist and the estimated population of which, in the middle of 1931, was 2,635,200.

The death rate of each disease is calculated per thousand deaths.

The table shows that diarrhœas and enteric diseases still cause the largest number of deaths as their death rate reached 336·8 per thousand; then come the chest diseases which caused about 197·7 per thousand deaths.

It is worthy to note that the rate of deaths caused by malaria is trifling and that caused by diseases of puerperium and delivery (namely 4·2 per thousand) has decreased, being 4·7 per thousand in 1930 against 6 per thousand in 1929. This decrease is due, on the one hand, to the more efficacious measures adopted for combating malaria, and, on the other hand, to the creation of the Child Welfare Centres and the increase in the number of Children Dispensaries.

(4) Age and Sex Distribution of Deaths

The following table No. IX shows that the number of deaths of males still outnumbers that of females with the exception of deaths in the age of 75 and upwards, as in last year.

With regard to the age distribution of deaths, the aforesaid table shows as well that the majority of deaths occurred in the age of infancy at a rate of 62·5 per cent as compared to 60 per cent in last year. Of this number 33·3 per cent occurred amongst infants of less than one year of age (as compared to 34·9 per cent which is a fair improvement), and 29·2 per cent amongst infants between one and five years of age.

(5) Infantile Mortality

During this year 106,419 infants died in Egypt, *i.e.* a rate of 160 per thousand births against 151 in last year. Of the said total deaths 25,975 occurred in Governorates and chief towns of Provinces, at a rate of 217 per thousand births, as compared to 22,789 deaths in 1930 at a rate of 200·2 per thousand. The highest infantile mortality rate in the Provinces and Governorates was at Alexandria (224 per thousand births) as compared to 200 per thousand at Cairo in last year. The lowest rate of the said infantile mortality was at Qena and Behera Provinces where it did not exceed 115 per thousand births (as compared with 107 per thousand at Behera Province in 1930).

The total number of infantile mortality in the towns and bandars (chief towns) where health offices exist amounted to 42,050 at a rate of 213·5 per thousand births as compared to 37,841, *i.e.* 200 per thousand in last year. The highest mortality rate in the said localities was at Etsa Bandar (383 per thousand births—as compared to 389 per thousand at this Bandar in last year). The lowest rate was 60 per thousand at Montazah while it was 94 at Nazlet Emara in 1930: *see* the two following tables Nos. VIII and X.

Table No. VII.—Diseases causing Deaths in Towns where Public Health Offices exist, 1931.

Disease.	Total Number of Deaths.	Rate of Deaths per 1000 of Total Number of Deaths
Infectious notifiable diseases, exclusive of diseases shown hereunder and marked (X)...	4,550	36·1
Pulmonary tuberculosis (respiratory system tuberculosis) (X)	1,567	12·4
Other tuberculous diseases	525	4·2
Syphilis	354	2·8
Malaria (X)	19	0·0
Dysentery (X)	506	4·0
Pneumonia (acute, chronic and not defined)	5,034	39·9
Bronchitis	10,423	82·6
Other respiratory system diseases including broncho-pneumonia and capillary bronchitis	8,045	63·8

TABLE No. VII.—DISEASES CAUSING DEATHS IN TOWNS WHERE PUBLIC HEALTH OFFICES EXIST, 1931 (*continued*).

Disease.	Total Number of Deaths	Rate of Deaths per 1000 of Total Number of Deaths
Heart diseases	4,300	34·1
Other diseases of the circulatory system ...	1,165	9·2
Diseases of urinary and genital system (other than venereal)	4,592	36·4
Diseases of puerperium and delivery (other than puerperal septicaemia)	524	4·2
Diseases of diarrhoea and enteritis	42,491	336·8
Senility	8,864	70·3
Accidental deaths including suicide and capital punishment	3,347	26·5
Other causes	29,842	236·6
TOTAL NUMBER OF DEATHS ...	126,148	1,000

TABLE No. VIII.—DISEASES DISTRIBUTION OF THE INFANTILE MORTALITY IN LOCALITIES WHERE PUBLIC HEALTH OFFICES EXIST, 1931.

Disease	Number of Deaths	Rate per 1000 to Total Births	Rate per 1000 to Total of Infantile Mortality
Measles	285	1·4	6·8
Syphilis	207	1·1	4·9
Diseases of growth and atrophy*...	11,031	56·0	262·3
Chest diseases	6,386	32·4	151·9
Enteritis	20,614	104·7	490·2
Other causes	3,527	17·9	83·9

TABLE No. IX.—DEATHS OF TOWNS WHERE P.H. OFFICES EXIST DISTRIBUTED ACCORDING TO AGE AND SEX DURING 1931.

Age Periods	Number of Deaths			Percentage to Total of Deaths
	Males	Females	Total	
Less than 1 year	22,176	19,874	42,050	33·3
1–2 years	10,784	10,625	21,409	17·0
2–5 ,, ...	7,720	7,674	15,394	12·2
5–10 ,, ...	1,860	1,654	3,514	2·8
10–15 ,, ...	1,093	822	1,915	1·5
15–25 ,, ...	2,443	1,837	4,280	3·4
25–35 ,, ...	2,837	2,299	5,136	4·1
35–45 ,, ...	2,978	1,976	4,954	3·9
45–55 ,, ...	3,121	1,752	4,873	3·9
55–65 ,, ...	3,048	1,984	5,032	4·0
65–75 ,, ...	3,144	2,669	5,813	4·6
75–85 ,, ...	2,659	3,051	5,710	4·5
85–95 ,, ...	1,562	2,430	3,992	3·2
95 ,, and upwards ...	724	1,321	2,045	1·6
Unknown	23	8	31	0·0
Total... ...	66,172	59,976	126,148	100·0

* Including infantile convulsion, congenital debility, premature delivery, delivery results, and other infantile diseases.

TABLE No. X.—AGE AND SEX DISTRIBUTION OF INFANTILE MORTALITY IN LOCALITIES WHERE PUBLIC HEALTH OFFICES EXIST, 1931.

Age Groups	Males	Females	Total	Death-rate per hundred births.	Death-rate per hundred deaths.
0–1 month	4,713	3,706	8,419	51·3	80·1
1–2 months	1,539	1,304	2,843	17·3	27·0
2–3 ,, ...	1,397	1,246	2,643	16·1	25·1
0–3 ,, ...	7,649	6,256	13,905	28·3	44·1
3–4 ,, ...	1,462	1,318	2,780	16·9	24·6
4–5 ,, ...	1,703	1,612	3,315	20·2	31·5
5–6 ,, ...	1,740	1,627	3,367	20·5	32·0
3–6 ,, ...	4,905	4,557	9,462	19·2	30·0
6–7 ,, ...	2,158	2,002	4,160	25·4	39·6
7–8 ,, ...	1,747	1,559	3,306	20·2	31·4
8–9 ,, ...	2,025	1,992	4,017	24·5	38·2
6–9 ,, ...	5,930	5,553	11,483	23·3	36·4
9–10 ,, ...	1,515	1,400	2,915	17·8	27·7
10–11 ,, ...	1,447	1,364	2,811	17·1	26·7
11–12 ,, ...	730	744	1,474	9·0	14·0
9–12 ,, ...	3,692	3,508	7,200	14·6	22·8
0–1 year	—	—	—	—	—
Total... ...	22,176	19,874	42,050	21·4	33·3

	Governorate or Mudiria (Province)	Rate per 1000
The highest birth rate at	Giza	54·9
The lowest birth rate at	Beheira	36·6
The highest death rate at	Giza	35·0
The lowest death rate at	Qena	19·2

	Towns and Bandars (chief towns) where Health Offices exist	Rate per 1000
The highest birth rate at	Geziret Séoud ...	71·2
The lowest birth rate at	Kom Ombo ...	15·0
The highest death rate at	Embaba	53·8
The lowest death rate at	Port-Fouad ...	6·1

INFANTILE MORTALITY

The highest infantile mortality rate was 224 per 1000 births at Alexandria Governorate.
The lowest ,, ,, ,, 115 ,, births at Qena and Beheira Provinces.
The highest ,, ,, ,, 383* ,, births at Etsa Town.
The lowest ,, ,, ,, 60* ,, births at El Montazah town.
The birth rate for all the population of Egypt was 43·2 per thousand.

* All the localities where Health Offices exist.

TABLE No. XI.—SHOWING THE INFANTILE MORTALITY RATE ALL OVER EGYPT, IN 1931.

	Infantile mortality	Rate per 1000
	Number	
Governorates :—		
Urban (cities only)	19,051	216
Urban and Rural	19,938	211
Lower Egypt :—		
Urban (capitals only)	2,847	184
Urban and Rural	42,759	144
Upper Egypt :—		
Urban (capitals only)	4,077	253
Urban and rural	43,722	160
Egypt :—		
Urban (Governorates and Capitals)	25,975	217
Urban and rural	106,419	160

CHAPTER II

GENERAL SANITATION

1.— Etablissements Insalubres, Incommodes et Dangereux

(1) Applications for New Permits

During the year 1931, 792 applications for new first class establishments (including public markets and cattle markets) were submitted, as compared to 797, 1,031, 1,061, 948 and 877 in the years 1930, 1929, 1928, 1927 and 1926 respectively.

The decrease of the number of applications submitted in 1931, than in previous years is due to the financial crisis.

(2) Existing and already licensed Establishments

The following table No. XII shows the number of existing and already licensed establishments of each of the three classes in each Province or Governorate. The total number of these establishments in Egypt amounted, till the end of 1931, to 76,345 as compared to 74,886 in 1930.

(3) Ministerial Arrêtés for Improving the Condition of Establishments

The Department is still following the rule it has adopted since several years, by issuing Ministerial Arrêtés for the improvement of the condition of licensed establishments so as to be in the same standard of the new establishments with regard to fulfilment of all recent sanitary conditions.

The total number of *arrêtés* issued during this year was 432 as compared to 389 in last year. Considering the financial crisis prevailing in the country, the Department, in order not to burden the owners of establishments with heavy conditions, confined the issue of *arrêtés* to the establishments of important industries and those in bad sanitary condition.

The following table No. XIII shows the number of arrêtés issued for the establishments existing in each Governorate or Province. The Department paid special attention as in previous years to certain categories of establishments in which food stuffs and drinks are prepared or sold and to those employing a large number of labourers as well as those whose industries are causing nuisance to labourers or to the neighbouring inhabitants.

The following particulars show the classes and number of the establishments improved and the conditions imposed for their improvement :—

(*a*) *Bakeries.*—The Department issued Ministerial Arrêtés for the improvement of 20 bakeries.

(*b*) *Aerated Water Factories.*—The Department has issued *arrêtés* for 26 factories, where recent sanitary conditions were imposed such as the installation of mechanic brush apparatus for washing the interior and exterior of the bottles so as to avoid their being washed by hands; the installation of apparatus for filling syrups; the covering of the dadoes of the walls with earthenware slabs, so as to keep them clean; the allotment of a special room for syrups and of another one for washing bottles. In order to keep these syrups uncontaminated, the Department has prohibited the use of glass-balled bottles and recommended the use of the capsule covers instead of cork. The Department prohibited the employment of saccharine and saponine in the preparation of syrups and decided that syrups should be kept in and taken from tapped vessels. The Department also imposed the following conditions : the provision of each factory with a good potable water supply and a drainage system; the creation of a hall or a yard at the main door, whose walls and roof should be made of wire netting, and provided with two doors, not opposite each other, the one opening outwards and the other opening inwards; and the provision of cupboards for keeping the labourers' clothes.

(*c*) *Butchers' Shops.*—The Department continued to have Ministerial *arrêtés* issued for ameliorating the sanitary conditions of butchers' shops existing in Governorates and chief towns of Provinces. The number of these *arrêtés* amounted to 145 imposing the same sanitary conditions decided for these shops in 1930, and when the financial crisis is over, the same sanitary conditions will be imposed upon the butchers' shops existing in the bandars (chief towns) of districts.

(*d*) *Fresh Fish Shops.*—*Arrêtés* were issued for the improvement of the state of 20 shops. The owners of these shops were called upon to cover the dadoes of the walls with earthenware slabs; to provide an ice chest for preserving fish; to provide a basin of cement covered with earthenware or glazed earthenware from inside and outside, for washing fish. These shops must also be furnished with tables covered with marble, on which fish is to be exposed for sale ; a good drainage system and bins of a suitable kind for refuse.

(*e*) *Schools and Kuttabs.*—In order to safeguard the health of the pupils of these institutes, the Department caused the issue of 22 Ministerial *arrêtés* prescribing the following conditions: provision of sufficient means of light and aeration ; covering of the floor with wood instead of flagstone as a proof against humidity; the installation of potable water taps and a sanitary water system (latrines and waterclosets for males and waterclosets for females); the provision of basins for washhands and the connection of the water systems of these establishments with the public drains or the creation of sanitary cesspits if no drainage system exists.

(*f*) *Soap Factories.*—*Arrêtés* were issued for 19 soap factories in Cairo, prescribing new conditions of which : to make the floor of the soap boilers of armoured cement ; to cover the light and ventilation openings with steel nets ; to instal an earthenware basin under each water tap ; to cover the walls around these basins with earthenware slabs ; to raise the chimneys to a height of five metres above the neighbouring houses within a radius of 25 metres ; to provide the tops of chimneys with covers for preventing the spread of soot therefrom. In order to avoid the danger of fire, the owners of soap factories were, at the request of Cairo Fire Brigade, called upon to have the tops of the working places covered with a span form roof made of corrugated iron sheets and iron beams borne on masonry or strong iron pillars. The places for drying soap should be made of wood, to be placed upon iron beams and erected upon iron pillars. The stairs leading to each drying place should also be made of iron and provided with a railing. The soap factories should also be provided with chemical apparatus for extinguishing fire, water taps with wide diametre and hoses fitted with brass nozzles, etc.

(*g*) *Sweetmeat Factories.*—As the majority of the sweetmeat factories, working after the old methods, were in need of certain sanitary improvements, the Department drew the attention of their owners to the necessity of carrying out these improvements. Ministerial Arrêtés were, therefore, issued for six of these factories prescribing the following conditions: to provide the factory with a good water supply and a sanitary drainage system ; to instal fixed glass fronts ; to make their sky-lights in a span form, with a glass roof ; to cover the walls above the tables on which sweetmeats are made, with earthenware slabs to the height of one and a half metres ; to cover the tops of these tables with marble; to provide cupboards made of wire and having their shelves lined with zinc sheets for keeping the factory's products.

(*h*) *Cotton Ginning Factories.*—Considering the large number of labourers employed in these factories—most of whom are youths and women—and the danger to which they are exposed by inhaling the dust spreading in their wards, the Department insisted upon the necessity of improving their sanitary condition and therefore obtained the issue of Ministerial *Arrêtés* for 21 factories prescribing the following improvements: the provision of sanitary potable water supply and taps for drinking purposes ; sanitary waterclosets, latrines, douches for labourers ; washhand basins and special waterclosets ; washhand basins for women ; sanitary drainage system ; cupboards for keeping the labourers' clothes and chests containing first-aid articles and drugs for use in case of emergency.

As regards the ventilation of these factories' wards, the Department, taking into consideration the critical economic condition of the country, due to the great fall in the cotton prices, deemed it hard to insist on the immediate provision of these wards with apparatuses

for clearing them of the dust spreading therein and furnishing them with fresh air. The Department did not, however, neglect to advise the owners of the ginning factories to do their best for avoiding the nuisance caused by dust. Some of them devised certain apparatuses for this purpose and put them in some wards as a trial, and asked the Department to examine them so that in case they are found suitable they would be generalised in the other wards. As the apparatuses devised proved satisfactory from a sanitary point of view, the owners of some factories took care to install them in their establishments and it is hoped that the owners of the other factories will do so.

The Department, desiring to be lenient with the owners of ginning factories, accepted their demand to prolong the period fixed in the Ministerial *Arrêtés*, for the fulfilment of the improvements, to the end of August 1932 (the beginning of the ginning season). The Department intended by this leniency to encourage these owners to fulfil the conditions required of their own accord, instead of having recourse to legal proceedings.

(*i*) *Weaving Factories.*—With a view of encouraging the national weaving industry, and considering the present economic crisis of the country, the Department did not cause the issue of several Ministerial *Arrêtés* for the improvement of the condition of the weaving factories and deemed it necessary to be indulgent as regards certain sanitary conditions required for them. Therefore, no more than four Ministerial *arrêtés* were issued during the year prescribing the following measures: to limewash the walls of the factory; to cover the floor with paving stones; to oil paint the wooden parts; to provide the factory with a skylight in the form of a span, with a good water supply and a good drainage system.

The Department does not insist on these sanitary conditions being fulfilled either in the new weaving factories or in the old ones, and takes into consideration, in prescribing such conditions, the state of the locality where the establishment exists, the number of labourers employed and the financial capacity of the owners.

(*j*) *Bricks and Earthenware Factories and Lime Kilns.*—Considering that many of these establishments, previously licensed, have lately become nearer to habitations than it is lawfully allowed and that some of them are not situated to the south-east of habitations as stipulated in regulations, the Department took care to remedy the nuisance caused by the smoke emanating from these establishments, especially in Lower Egypt Provinces, where the wind is more violent than in Upper Egypt. It therefore caused the issue of Ministerial *Arrêtés* for 34 establishments stipulating the same conditions prescribed in 1930. In localities where electric current exists, it was stipulated that the factory should be provided with electric apparatus for sucking the dust spreading therein.

(*k*) *Other Establishments.*—There are other establishments for the amelioration of which Ministerial *Arrêtés* were issued.

It is worthy to note in this connection that the provisions of Law No. 13 of 1904 had not been applied to the general markets managed by the "Egyptian Markets Co. Ltd.," in virtue of the concession granted to it by the Government, yet the Department has requested the Company in question to have the sanitary conditions fulfilled in these markets. These conditions were in fact performed in some markets and it is hoped that they will be fulfilled in the rest.

(4) Slaughterhouses and Slaughtering Sites

During 1931, the Department approved of the sites of six slaughterhouses to be constructed by the Municipal, Local and Village Councils at the bandars of Aga, Etsa, El Fashn, Farshout, El Fikrieh Village (Abou Korkas District) and Bardis village (El Baliana District).

As regards villages where slaughterhouses cannot be erected, or villages far distant from other slaughterhouses, the Department selects in each of them a sanitary site for the slaughtering of animals. The slaughtering sites selected this year were two, one of which at Shalakan (Kalioub District) and the other at El Wakf (Deshna District).

Ministerial Arrêtés issued for modification in the Schedule of "Etablissements Insalubres" during the year 1931

A Ministerial *Arrêté* was issued on August 10, 1931, transferring the establishments entitled "Butchers Shops" from Category "B" to Category "A" in the third class of the schedule so as to apply the law on all establishments of this sort throughout Egypt.

TABLE No. XII.—SHOWING THE DISTRIBUTION OF THE EXISTING UNHEALTHY, DANGEROUS AND INCONVENIENT ESTABLISHMENTS IN GOVERNORATES AND MUDIRIAS UP TO THE END OF 1931

Governorate or Mudiria	1st Class Establishments	2nd Class Establishments (a)	2nd Class Establishments (b)	3rd Class Establishments (a)	3rd Class Establishments (b)	Total
Cairo	1,848	10,102	1,543	2,030	818	16,341
Alexandria	1,408	5,050	1,456	906	678	9,498
Damietta	226	679	82	38	87	1,112
Canal	323	1,004	100	167	123	1,717
Suez...	95	411	72	52	39	669
Qaliubîya	91	2,015	156	155	30	2,447
Menoufîya	195	4,145	250	238	33	4,861
Gharbîya	824	5,334	508	203	567	7,436
Beheira	305	2,886	169	161	138	3,659
Sharqîya...	328	2,632	165	177	57	3,359
Daqahlîya	655	3,354	318	309	109	4,745
Gîza	133	2,578	178	273	37	3,199
Fayoum	108	2,070	127	161	30	2,496
Beni-Suef	80	1,540	82	142	25	1,869
Minya	199	2,842	115	282	83	3,521
Asyût	248	3,127	215	392	56	4,038
Girga	156	1,732	151	199	26	2,264
Qena	151	1,754	82	205	28	2,220
Aswan	74	709	14	81	16	894
TOTAL	7,447	53,964	5,783	6,171	2,980	76,345

TABLE No. XIII.—SHOWING THE NUMBER OF MINISTERIAL ARRÊTÉS ISSUED IN 1931 FOR THE ESTABLISHMENTS EXISTING IN EACH GOVERNORATE AND PROVINCE

Governorate or Mudiria	Number of Arrêtés
Cairo	58
Alexandria	92
Canal	15
Suez...	6
Damietta	—
Gharbîya Province	64
Beheira ,, ...	9
Menoufiya ,, ...	10
Daqahlîya ,, ...	50
Sharqîya ,, ...	15
Qaliûbîya ,, ...	—
Gîza ,, ...	—
Faiyûm ,, ...	44
Beni Suef ,, ...	31
Minya ,, ...	25
Asyût ,, ...	9
Girga ,, ...	3
Qena ,, ...	1
Aswân ,, ...	—
TOTAL	432

2.—Water

Water installations were erected at Kafr el Sheikh and Abou Tig for supplying filtered water. In order to protect water against contamination and keep it at the standard of purity required, arrangements were also made for the installation of apparatuses for chlorinating water in all waterworks throughout the country.

Pumps for supplying artesian water were installed at El Menshat, Sanabo, El Maragha, Ashmoun and El Wasta.

The Department approved the sanitary sites selected for the installation of water plants for purifying water at Fareskour, Beyala, Shebrakhit, Basyoun and Qift.

Three free water taps were installed in Cairo to supply the inhabitants of Establ Antar, Kalêt el Kabsh and Kom el Saaïda localities with water for domestic purposes.

In order to prevent the propagation of infectious diseases, a Ministerial *Arrêté* was issued on May 31, 1931, for the suppression of fountains, basins, taps and jars intended for supplying drinking water to the public gratuitously, except those pushing water upwards.

3.—Food Stuffs

All food stuffs exposed for sale are controlled by the Public Health agents authorised to take samples of consumables suspected to be unsuitable for human consumption, and send them to the Public Health Laboratories for examination. The following table shows the number of samples examined during 1931.

TABLE No. XIV.—SHOWING THE NUMBER OF SAMPLES OF FOOD STUFFS EXAMINED BY PUBLIC HEALTH LABORATORIES DURING 1931

Kind of Samples	Number	Rate of samples found unfit for human consumption
		%
Natural butter	399	80
Artificial butter	6	33
Cocoa-nut oil...	5	33
Linseed oil	99	100
Other consumable oils...	148	100
Milk...	6,171	89
Concentrated milk	46	76
Bread	19	100
Preserved foods	868	16
Other consumable articles	61	59
Cheese	23	65
Coffee and tea	170	90
Flour	105	94
Saponine (used in aerated waters)	4	100
Liquors	19	99

The Public Health agents have, during their inspection, destroyed large quantities of food stuffs exposed for sale, which they found corrupt. The following table shows the articles destroyed :—

TABLE No. XV.—SHOWING QUANTITIES OF FOOD STUFFS DESTROYED DURING 1931 FOR BEING UNFIT FOR HUMAN CONSUMPTION

Kind of Food	Preserved in Tins	Fresh per oke
Meat and fish	14,039	1,009
Fruits and vegetables...	6,528	4,673
Milks and their products	76	200
Other articles	236	33

4.—Mosques

(1) *Private mosques dealt with in 1931.*

Water systems of old private mosques in need of repairs :

Number of water systems opened for public use after repair...	98
Number of water systems closed for being in need of repair	397
Number of water systems under repair...	181
New private mosques the plans of which were approved of during 1931 ...	14

(2) *Wakfs Mosques.*

The sum of L.E. 5,000 was allotted in 1931–1932 Budget for improving the sanitary condition of the water systems of the Wakfs mosques during the year 1931, being the Government's share in improving the water systems of these mosques. Some of the improvements required were duly accomplished and others are still under completion as shown hereunder :

Number of water systems of mosques whose preliminary estimates were approved	9
Number of water systems of mosques whose plans were made and approved during 1931	113
Number of water systems of mosques under repair	8
Number of water systems of mosques closed for being in need of repair	9
Number of water systems of mosques completely repaired	9

5.—Measures taken for Combating Malaria

Birkas (Swamps).

The number of birkas (swamps) inspected during the year 1931 and found to be a source of danger to public health was 191, of which 140 birkas are private property and to which the Law No. 5 of 1914 was applied, and the other 51 birkas are Government property for which necessary measures were taken.

45 of the private birkas above-mentioned were duly filled up.

The number of birkas filled up either by the Birkas General Committee or by private individuals throughout Egypt in 1931 was 105, the area of which amounted to 399,754 square metres. The expenditure incurred for this work carried out by the General Committee amounted to L.E. 23,645 and 181 milliemes debited against the credit allotted for this purpose, and the work is going on for filling up 92 other birkas measuring 886,922 square metres.

The following table shows the number of Government birkas which were, at the request of the Public Health Department, sold by the State Domains Administration to private individuals on the condition of their being filled up by them. The purchasers of these birkas have actually filled them up during 1931 :—

TABLE No. XVI.—SHOWING THE NUMBER AND AREA OF BIRKAS FILLED UP BY PRIVATE INDIVIDUALS DURING THE YEAR 1931

Province	Number of Birkas	Area		
		Feddans	Kirâts	Sahms
Gharbîya...	5	7	21	7½
Daqahlîya	1	—	5	4
Sharqîya...	3	1	23	8
Beheira	20	35	11	9
Qalioubieh	2	—	12	17
Giza...	5	—	11	14
Asyût	2	1	20	12¾
Minya	12	—	21	4
Girga	1	—	1	16
TOTAL	51	49	8	20¼

6.—Cemeteries

The following statistical table shows the action taken in connection with cemeteries in Egypt during 1931 :—

(1) Cemeteries newly constructed	10
Cemeteries enlarged	21
Cemeteries surrounded by pillars	128
Cemeteries authorized for burial	1
(2) Private cemeteries authorised	5
(3) Cemeteries disaffected :	
(*a*) Cemeteries evacuated from bones	59
(*b*) Cemeteries under evacuation	509
(4) Encroachments on cemeteries lands	205

7.—Health Propaganda

The work of the health propaganda was carried out during this year after the lines followed in the previous year, with continued expansion and increasing activities as a result of the increasing popularity of the meetings held for initiating the public to the principles of health.

As a result of the cooperative and unified activities of both the Department of Public Health and the Ministry of Agriculture, two motor vehicles were fully equipped with films for health and agriculture propaganda. This cooperation led to the work of the Health Propaganda Office being divided into two parts: the one for propaganda in localities where no electric current exists and the other for propaganda in towns and chief towns in provinces containing electric current. This explains the great expansion in the scope of propaganda work during 1931.

The urban propaganda extended over nearly all large towns where several meetings were arranged, in the premises of clubs, well-known societies, in cinemas, schools and fairs, etc.

A large tent to hold 1,000 persons was erected in the Agricultural and Industrial Exhibition. During the whole period of this Exhibition, lectures were delivered, cinema films projected and pamphlets distributed every evening among the people who visited this tent. This propaganda had a very good impression on the large number of people who visited the exhibition from all parts of the country.

The rural propaganda commenced by the despatch of one of the two motor vehicles to Gharbîya Province where it passed a period of three months during which it traversed all parts of the province making health and agricultural propaganda among peasants who never attended such useful meetings.

The other vehicle was sent to Beni-Suef Province where health and agricultural films were projected all over the province for a period of one month.

One of the two vehicles was then sent to Faiyûm and the other to Qalioubîya Province where they made propaganda for one month all over these provinces.

The Medical Officers, each within his circumscription, explained the cinema films projected by the motor vehicles and delivered lectures on health matters. At the termination of each meeting, health pamphlets were distributed among the attendants.

The number of films amounted to 40 and that of pamphlets to 26 as compared to 38 and 24 respectively in 1930.

The number of pamphlets distributed this year (one million approximately) exceeded the number distributed in any previous year, and the propaganda work made by the Medical Officers of Districts and Health Outposts, in their respective circumscription, was carried out very accurately this year.

CHAPTER III

INFECTIOUS DISEASES CONTROL.

General

During the year 1931 no epidemics worthy of mention appeared in the country with the exception of cerebro-spinal meningitis and measles with which great number of cases occurred. The Department is glad to state that no small-pox cases were reported in the interior of Egypt. Ten persons coming from abroad *via* Suez port were detected being infected with this disease. They were all isolated at Suez Fever Hospital.

The diseases more prevalent were typhoid and paratyphoid fevers with a case rate less than last year, *i.e.* 2,845 at a mortality rate of 25·23 per cent.

The number of cerebro-spinal meningitis cases was greater than that of previous year as it reached 871 with 511 deaths, *i.e.* at a death rate of 58·6 per cent in comparison with 99 cases, 58 deaths and 58·58 per cent mortality rate last year. The causes of the high case rate as well as the measures taken in combating this disease are detailed hereafter in the para thereof.

The number of plague cases, namely 573, was higher than that of the previous year with 203 deaths at a mortality rate of 35·4 per cent as compared with 336 cases, 109 deaths and a rate of 32·7 per cent in 1930. The increase is due to the occurrence of local epidemics at Embaba District (Giza Province), Manfalout, Dairout and Mallawi Districts (Asyût Province).

Cases of typhus fever are still gradually decreasing. The number of cases occurred did not exceed 265, 57 of which ended with death ; and this is the least number of cases recorded during the last ten years.

As a result of the accurate system of notification, the number of measles cases recorded has enormously been increased. It amounted to 10,709 of which 3,507 ended with death, *i.e.* at a rate of 32·74 per cent of the total number of cases, as compared to 4,470 cases, last year, of which 1,112 ended with death.

Influenza cases have been slightly increased in comparison with those of last year. The number thereof amounted to 5,900 cases with a mortality rate of 5·1 per cent. Most of these cases were of a mild form.

Owing to the high mortality rate of 41·29 per cent which occurred in the 2,165 diphtheria cases, the Department has carried out a large campaign for combating this disease by the vaccination of the largest possible number of children between the ages of two and twelve years by the " Anatoxin Ramon " in order to immunize them against this disease. The result of this vaccination is shown hereafter in the part of this report dealing with this disease.

The travelling dispensary sent in 1930 for the discovery and treatment of diseases causing the increase of children mortality rate at Embaba District and the neighbouring towns continued its work during 1931. The number of patients who attended this dispensary in 1931 amounted to 3,185, among whom the following cases of infectious diseases were detected:—

Number of patients	Disease	Number of patients	Disease
77	Measles.	12	Dysentery (Bacillary)
36	Typhoid.	10	Dysentery (Amoebic)
33	Paratyphoid.	3	Mumps.
35	Whooping cough.	2	Erysipelas.
2	Diphtheria.	2	Chicken-pox.
2	Malaria.		

The two malaria stations at Khanka and Faiyûm continued to treat patients suffering from malaria and to take prophylactic measures against this disease. The number of patients who attended Khanka Station amounted to 1,332 amongst whom 150 cases of malaria were detected, 63 of which were malignant. Those who attended Faiyûm Station amounted to 1,788 of whom 402 found to be infected with malaria and 47 of these cases were malignant.

A law was enacted this year prescribing compulsory vaccination against plague, cholera and small-pox diseases. An amendment to the Infectious Diseases Law was issued in connection with the typhoid and paratyphoid microbe carriers, stipulating their compulsory isolation and observation.

Safeguarding the Country against Imported Diseases

The result of the medical observation carried out by the Department in the interior of Egypt upon persons coming from abroad was very satisfactory.

The number of passengers arriving *via* Egyptian ports amounted to 31,793 of whom 99·93 per cent were traced and observed. Those who arrived *via* Kantara amounted to 23,147, 99·86 per cent of whom were traced and observed. Pilgrims of this year amounting to 4,935 were observed and all those who returned to the country were traced. Eleven pilgrims were found to be suffering from infectious diseases and 25 from ordinary ailments. The Department has taken the measures usually adopted during pilgrimage in previous years, prior to the departure of pilgrims to Hedjaz and after their return therefrom. Pilgrims were vaccinated against small-pox, enteric fevers and cholera. Three fully equipped dispensaries were also sent in company with pilgrims to carry out the necessary medical services to them in the Holy Lands. On examining the faeces of some pilgrims on their return to Tor Lazaret a vibrio agglutinated with cholera vaccine was detected. The pilgrimage was therefore considered as "Brut." The necessary measures were taken in conjunction with the Quarantine Board for safeguarding the country. All suspected persons were quarantined and all pilgrims of the Holy Lands coming through the Eastern Coast of the Red Sea and Sinia Peninsula were isolated in case they were not kept at El Tor the statutory period of observation. These precautions lead to the protection of the country against cholera.

The Department has also taken stringent measures in the interior of the country by the control of pilgrims returning home. These pilgrims were not allowed to return from Suez to Cairo by land ; and their reception on board before the ships embarkment to the quay and their being medically examined, was also forbidden.

In view of the outbreak of cholera at Iraq and the Persian Gulf, and owing to the fact that the airships can traverse the distance between Iraq and Egypt in less than 24 hours and the motor-cars in 40 hours, the Department has taken in conjunction with the Quarantine Authorities severe precautions in land, sea and air as was followed last year for safeguarding the country against cholera ; the result of these precautions was very satisfactory.

(a) *In the Interior of the Country.*

The notifications received by the Department during 1931 show that the degree of prevalence of infectious diseases was in the following order :—

Typhoid, paratyphoid (enteric fevers), cerebro-spinal meningitis, typhus and scarlet fever of the first division of the Schedule of Infectious Diseases, and measles, influenza, respiratory system tuberculosis, erysipelas, whooping cough, malaria, dysentery (bacillary and amoebic), mumps and tetanus—of the second division of the said schedule.

Table No. XVII shows the number of infectious disease cases occurring in 1931 as compared with 1929 and 1930.

Typhoid Fever

The Department stated in its last year's report that a project law was prepared which empowers the Department to isolate, for the period which the Health Authorities will deem necessary, all persons who are proved, after becteriological examination, to be typhoid or paratyphoid microbe carriers. The Department is thus authorised to keep these carriers away from the performance of any job in connection with the preparation, selling, or transport of food stuffs or beverages. They are not entitled to be employed in coffee-houses, restaurants, bars, breweries, hotels or any other establishments of this sort.

Decree Law No. 52 of 1931 was promulgated to this effect and published in the Official Journal No. 36 of April 14, 1931.

The number of typhoid cases occurring all over the country and notified to the Health Authorities during the whole year of 1931 amounted to 2,845 of which 718 ended with death, *i.e.* a rate of 25·23 per cent, as compared to 3,136 cases, 703 deaths and 22·41 per cent last year respectively.

The decrease is due to the precautions carried out for the control of the disease, the observation of the microbe carriers and the vaccination of contacts with the prophylactic vaccine.

The Department in addition to the vaccination twice, encouraged the public with all means to benefit by the prophylactic vaccine against this disease. The Prisons Department has vaccinated a large number of prisoners all over the country. A considerable number of soldiers of the Egyptian Army were also vaccinated. The total number of persons vaccinated amounted to 89,900.

Table No. XVIII shows the weekly distribution of the cases and deaths of typhoid fever in Mudirîyas and Governorates during the year 1931.

TABLE NO XVII.—SHOWING THE INFECTIOUS DISEASE CASES OCCURRING IN 1931 COMPARED TO THOSE IN 1929–1930

Diseases	Cases 1929			Cases 1930			Cases 1931		
	Cases	Deaths	Percentage of deaths to cases	Cases	Deaths	Percentage of deaths to cases	Cases	Deaths	Percentage of deaths to cases
Diseases of part I of the Schedule †									
Plague	182	69	37·91	336	108	32·74	573	203	35·42
Typhus	1,141	267	23·40	288	74	25·69	265	57	21·5
Small-pox	26	4	15·38	14	—	—	10	—	—
Anthrax	7	2	28·57	6	2	33·33	8	7	87·5
Relapsing fever	—	—	—	—	—	—	—	—	—
Typhoid and paratyphoid fevers	2,934	665	22·66	3,136	703	22·41	2,845	718	25·23
Cerebro-spinal meningitis	17	7	41·17	99	58	58·58	871	511	58·66
Encephalitis lethargica	10	10	100	7	4	57·14	9	7	77·77
Acute polioencephalitis	5	2	40	2	1	50	6	4	66·66
„ poliomyelitis	—	—	—	7	5	71·42	7	4	57·14
Scarlet fever	108	5	4·62	121	3	2·47	130	4	3·07
Diseases of part II of the Schedule †									
Diphtheria	2,201	924	41·98	2,073	856	41·29	2,165	894	41·29
Measles	22,365	9,190	41·9	4,470	1,112	24·87	10,709	3,507	32·74
Whooping cough	2,641	255	9·65	3,080	427	13·86	2,246	126	5·6
Mumps	1,029	40	3·88	1,174	27	2·29	849	23	2·7
Undulant fever	9	1	11·11	8	1	12·5	3	1	33·33
Leprosy	98	31	31·63	141	57	40·42	169	56	33·13
Tetanus	439	288	65·6	540	304	56·29	577	331	57·36
Respiratory system tuberculosis	2,796	2,237	80	3,065	1,991	64·95	2992	1,916	64·03
Chicken-pox	785	16	2·021	1,020	16	1·56	1,072	16	1·49
Influenza	3,872	314	8·1	5,762	289	5·01	5,900	301	5·1
Puerperal fever	519	362	69·74	658	466	70·82	562	423	75·26
Dysentery	2,005	737	36·75	2,203	552	25·05	1,968	543	27·59
Dengue fever	44	5	11·36	4	1	25	4	—	—
Erysipelas*	—	—	—	1,457	300	20·59	2,663	508	19·07
Malaria *	—	—	—	924	25	2·70	1,230	22	1·78

* Added to schedule in 1930

† The Schedule referred to in this table is annexed to Infectious Diseases Law No. 15 of 1912.

TABLE No. XVIII.—WEEKLY DISTRIBUTION OF CASE AND DEATH RATES OF TYPHOID FEVER IN MUDIRIAS AND GOVERNORATES DURING 1931

Governorates and Mudiriyas	1–4		5–8		9–12		13–16		17–20		21–24		25–28		29–32		33–36		37–40		41–44		45–48		49–52		Weeks of the year	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Governorates:																												
Cairo	61	18	67	25	56	14	54	28	68	27	102	30	150	40	206	66	193	55	134	43	98	28	69	19	42	18	1300	411
Alexandria	42	9	48	7	34	3	15	4	16	3	42	3	55	11	81	10	109	12	52	13	33	3	41	8	23	5	591	91
Canal (Ismailiya	2	1	—	—	—	—	—	—	—	—	1	—	3	1	—	—	2	—	1	2	—	—	4	—	—	—	13	4
Canal (Port-Said	6	—	5	1	2	1	2	—	2	—	3	1	8	2	14	3	—	—	3	1	4	1	3	2	—	—	52	12
Damietta	2	1	4	2	—	—	1	—	1	—	2	—	2	—	4	—	—	—	—	—	1	—	1	—	—	—	18	3
Suez	3	—	1	—	1	—	3	1	3	2	7	1	1	1	4	1	9	1	5	—	—	—	2	—	1	1	40	8
Southern Desert	—	—	—	—	—	—	—	—	—	—	21	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21	4
Western Desert	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—
Sinai	—	—	—	—	1	—	—	—	—	—	1	—	1	—	1	—	—	—	2	1	1	—	—	—	—	—	7	1
Provinces:																												
Beheira	—	—	1	—	10	—	14	3	22	4	14	2	3	1	3	—	6	—	7	—	2	—	3	1	1	—	86	11
Daqahliya	11	2	6	—	12	—	14	4	4	1	9	—	15	6	26	1	27	1	9	5	15	1	4	—	1	—	153	21
Gharbiya	5	1	21	4	12	—	6	3	9	1	8	3	11	1	9	10	12	1	12	3	10	1	5	—	2	—	122	28
Menufiya	6	2	2	—	7	1	5	1	12	1	6	—	1	—	6	—	3	1	8	—	8	3	9	—	—	1	73	10
Qalyubiya	3	—	2	1	6	2	5	1	6	3	2	—	14	1	8	2	2	1	9	1	8	—	2	—	4	—	71	12
Sharqiya	3	1	3	—	3	—	7	2	8	2	3	—	2	—	3	1	1	—	2	1	2	—	3	1	1	1	41	9
Aswan	—	—	1	—	1	—	—	—	3	1	1	—	—	—	—	—	1	—	1	—	4	—	8	2	5	—	25	3
Asyut	—	—	—	—	—	—	—	—	2	2	2	1	1	1	1	—	5	6	3	4	6	3	1	1	8	3	29	21
Beni-Suef	—	—	1	—	—	—	—	—	—	—	—	—	—	1	—	—	1	1	—	—	—	—	2	—	—	—	4	2
Faiyum	1	1	2	—	—	—	—	—	—	—	1	—	1	—	1	—	—	—	—	—	—	—	—	—	1	—	7	1
Girga	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1	—	—	—	—	—	1	7	1	—	—	7	4
Giza	2	—	5	4	9	3	4	3	8	9	6	2	10	5	11	1	12	7	5	4	16	3	8	2	4	3	100	46
Minya	—	—	2	—	3	—	2	—	1	—	1	—	1	1	2	—	2	1	4	—	2	1	11	2	3	—	34	5
Qena	1	—	1	—	4	—	3	—	3	2	8	3	12	1	1	1	6	2	3	1	2	—	3	1	3	—	50	11
TOTAL	148	36	172	44	161	24	135	50	168	59	240	50	291	73	381	97	391	89	261	79	212	45	186	40	99	32	2845	718

Cerebro-Spinal Meningitis

The number of cases of cerebro-spinal meningitis occurring during 1931 amounted to 871 of which 511 ended with death, *i.e.* a rate of 58·6 per cent of the total numbr of cases, as compared to 99 cases last year of which 58 deaths occurred, *i.e.* a rate of 58·58 per cent of the total number of cases.

The Department having noticed at the beginning of the year 1931 that the number of cases was continuously increasing in Egypt and in the foreign countries in constant relation, has taken all possible measures for combating this disease and gave instructions to the effect that the treatment of patients should be performed either in the fixed or the temporary fever hospitals exclusively. These measures were submitted to the Board of Health for consideration and were totally approved.

This epidemic being usually transported by microbe carriers in their noses and pharyngs and by patients suffering from mild cases of this disease, being erroneously diagnosed as influenza which so often precedes the occurrence of cerebro-spinal meningitis, it is, therefore, difficult to exercise efficient control over this disease as a result of the huge number of these microbe carriers amounting in some localities to 10 per cent of the population of the locality and such a huge number cannot be isolated by any means and are always liable of moving from one place to another causing spread of the disease and rendering the ways laid down for its combating impracticable.

Early cold weather was one of the important causes for increasing the number of cases as the cold climate commenced at the end of autumn and the beginning of winter seasons, with the result that cases of influenza, tonsilitis and pharyngitis where the microbe lurks in the nose and pharyngs, were increased.

Of the total number of cases of cerebro-spinal fever occurring during this year, 473 took place in Cairo, 102 in Alexandria and the remaining cases, *i.e.* 296 occurred in the rest of Egypt as compared to 55 in Cairo last year, 23 in Alexandria and 21 in the other localities of Egypt respectively.

The highest case-rate in Lower Egypt was, as last year, in Qalioubîya Province. The number of cases amounted to 77 at a rate of 13·78 per hundred thousand population as compared to 0·358 in last year.

The highest case-rate in Upper Egypt was, as last year, in Giza Province. The number of cases amounted to 10 at a rate of 1·69 per hundred thousand population as compared to 0·508 last year.

The following table shows that the disease was severer in Lower Egypt than in Upper Egypt:—

Table No. XIX

Locality	1930			1931		
	Cases	Deaths	Rate	Cases	Deaths	Rate
			Per cent			Per cent
Cairo	55	31	56·36	473	271	57·29
Alexandria	23	6	26·08	102	54	52·94
Frontiers Districts	—	—	—	1	1	100·00
Provinces of Lower Egypt ...	14	14	100	245	145	59·18
Porvinces of Upper Egypt ...	7	7	100	50	40	80·00
	99	58	59·18	871	511	58·66

Table No. XX shows the distribution of cases of cerebro-spinal fever occurring since 1917 till 1931 in Governorates and Provinces.

TABLE No. XX.—DISTRIBUTION OF CASES OF CEREBRO-SPINAL MENINGITIS IN THE MUDIRÎYAS AND GOVERNORATES OF EGYPT FROM 1917 TO 1931

Years	Cairo	Alexandria	Port-Said	Isma'iliya	Suez	Damietta	Frontier Districts	Behéira	Daqahliya	Gharbiya	Menufiya	Qalyubiya	Sharqiya	Giza	Beni-Suef	Fayoum	Minya	Asyût	Girga	Qena	Aswân	Total Number of Cases	Total Deaths
1917 ...	20	11	5	1	13	—	—	3	2	—	—	—	—	—	2	—	—	2	—	—	—	59	44
1918 ...	33	16	—	1	13	1	1	—	—	1	—	—	—	—	—	3	—	2	—	—	—	71	51
1919 ...	49	12	1	1	11	1	—	—	1	1	2	—	—	—	—	3	—	2	—	—	—	85	52
1920 ...	28	5	1	—	3	—	—	—	2	1	—	—	—	—	1	1	—	1	—	—	—	43	28
1921 ...	17	7	5	—	—	4	—	1	1	3	—	—	1	—	—	1	—	2	—	1	—	43	19
1922 ...	13	15	2	3	1	—	—	—	1	1	—	2	—	—	—	1	—	—	—	2	—	41	25
1923 ...	23	4	2	2	1	2	—	—	2	4	—	1	1	—	—	—	1	—	1	—	—	44	37
1924 ...	12	3	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—	18	13
1925 ...	13	4	2	2	1	—	—	1	1	3	—	—	1	—	2	—	—	2	—	—	—	32	22
1926 ...	11	5	—	1	—	—	—	—	—	—	—	1	—	2	—	—	—	2	3	—	—	25	18
1927 ...	7	13	—	—	—	—	—	—	—	1	—	3	2	1	—	—	2	—	—	—	—	29	18
1928 ...	12	11	2	—	—	—	—	1	—	—	—	—	1	1	1	1	1	1	—	1	2	35	22
1929 ...	6	6	—	1	—	—	—	—	1	—	—	—	—	1	—	—	—	1	—	1	—	17	7
1930 ...	55	23	1	—	—	—	—	—	2	7		2	—	3	—	—	—	3	—	1	—	99	58
1931 ...	473	102	—	—	—	—	1	5	39	78	20	77	26	10	—	—	14	19	5	1	1	871	511

Plague

The number of cases of plague amounted to 573 of which 530 were bubonic, 41 septicaemic and 2 pneumonic. One of the latter two cases occurred in Ma'sara locality(Abnoub District, Asyût Province) and the other in Azizât locality (Sûhag District).

203 of these cases ended with death, *i.e.* a rate of 35·4 per cent of the total number of cases, compared to 336 of which 109 ended with death, *i.e.* a rate of 32·4 per cent in 1930.

Distribution of the number of cases in Mudirîyas and Governorates, deaths and percentage of deaths to cases :—

Table No. XXI

Governorate or Province	Cases 1930			Cases 1931		
	Cases	Deaths	Percentage of deaths to cases	Cases	Deaths	Percentage of deaths to cases
Cairo	—	—	—	1	—	—
Alexandria	108	58	53·7	46	18	39·13
Canal	6	2	33	14	6	42·85
Western Desert	1	—	—	—	—	—
Gharbîya Province	7	3	43	8	6	75
Menûfîya Province	1	—	—	11	8	72·72
Daqahlîya Province	28	2	7	3	1	33·33
Beheira Province	5	1	20	4	—	—
Gîza Province	50	12	41·6	163	66	40·79
Beni-Suef Province	2	—	—	16	4	25
Minya Province	28	2	7	35	12	34·28
Asyût Province	93	25	26·8	248	69	27·82
Girga Province	3	3	100	9	4	44·44
Qena Province	—	—	—	14	8	57·14
Aswan Province	3	1	33	1	1	100
Sharqîya Province	1	—	—	—	—	—

The following table shows the number and kind of rats submitted to the Laboratories of the Quarantine Board at Alexandria, Port-Said and Suez during 1931 and the number of fleas found in their bodies :—

Governorate	Number of Rats			Number of Fleas		
	Acomys	R. Rat	R. Nor.	Acomys	R. Rat	R. Nor.
Alexandria	87	1,753	8,790	—	1,783	2,962
Port-Said	—	324	7,289	—	791	12,795
Suez	420	398	4,621	—	1,148	12,919

The disease spread in an epidemic form at Embâba District (Gîza Province) and Manfalout, Dairût and Mallawi (Asyût Province) and this was the cause of the increase of the number of cases.

The following are short notes regarding this epidemic :—

Embâba District.—This epidemic was scattered in nine localities of this district in the period between the 7th February and the 10th May, 1931. The total number of cases amounted to 143 of which 55 ended with death, *i.e.* a rate of 38·4 per cent. 48 of the 135 bubonic and 7 of the 8 septicaemic cases ended as well with death, *i.e.* a death rate of 35·5 and 87·5 per cent respectively. As a result of the campaign carried out by the Department against this disease, 34,114 persons of the infected regions and villages neighbouring thereto were vaccinated twice with anti-plague vaccine.

The number of mice trapped amounted to 154.

Dairout District.—Plague appeared in 22 villages of this district during the period from 3rd January to 25th June 1931. On 19th February 1931 a single case appeared in another village making the total number of villages 23.

The total number of cases occurring during the whole year amounted to 106 of which 99 were bubonic and 7 septicaemic. 25 cases of the bubonic and all the septicaemic ended with death, *i.e.* a death rate of 30·19 per cent of the total number of cases.

The disease was considered as endemic in this district. In spite of the stringent measures of disinfection, rats destruction, and anti-plague vaccination taken by the Department for combating this disease, outbreaks thereof occurred yearly in this district. 97,110 persons of the inhabitants of the infected localities and the neighbouring villages were immunized by the anti-plague vaccine.

As a result of the severe measures taken for the destruction of rats in the infected regions by catching or poisoning, 2,864 rats were killed.

Mallawi District.—On January 24,. 1931, a case of bubonic plague appeared at Tell-Beni-Omran village and it was the only case occurring till the beginning of April 1931. On April 4, the disease reappeared in eight localities and on June 20, it was completely stamped out till the end of the year.

The total number of cases amounted to 26 bubonic of which 11 ended with death, *i.e.* a mortality rate of 42·69 per cent.

This district is considered to be a plague endemic locality as the disease tends to appear yearly in some of its villages. The number of inhabitants vaccinated twice in the infected localities and the villages adjacent thereto, amounted to 12,885 persons and the number of rats caught 884.

Manfalout District.—Plague appeared in 19 villages within the period from January 4 till June 17, 1931.

The total number of cases amounted to 112 of which 23 ended with death, *i.e.* a rate of 20·53 per cent. Of this total 111 cases were bubonic, 22 of which ended with death, and the only septicaemic case died as well.

Amongst the measures taken for combating this disease, was the inoculation carried out by the Department for 50,518 persons with anti-plague vaccine twice, and the destruction of rats in the infected localities. The number of rats killed amounted to 3,171.

With the exception of the above four districts, the disease did not tend to appear in the rest of Egypt in an epidemic form.

The total number of persons vaccinated twice against plague in the whole country amounted to 293,350 and those vaccinated once amounted to 64,671.

Typhus

The number of cases occurring during the whole year amounted to 265 of which 57 ended with death, *i.e.* a rate of 21·5 per cent as compared to 288 cases, 74 deaths and a death rate of 25·69 per cent respectively in last year.

It is worthy of notice that the disease and the death-rate therefrom are decreasing from one year to another. This is due to the accurate system laid down for the notification of its cases and to the care directed by the Department in the isolation and treatment of the patients.

Scarlet Fever

The number of cases which occurred during the year amounted to 130 of which 4 cases ended with death, *i.e.* a rate of 3·07 per cent as compared to 121 cases, 3 deaths and a death rate of 2·47 per cent in 1930. The majority of these cases occurred amongst foreigners.

Small-Pox

It is worthy of mention with pleasure that no small-pox cases appeared this year in the interior of Egypt. 10 cases were detected amongst persons coming from abroad via Suez and were isolated at Suez Fever Hospital.

The Department in its last year's annual report has mentioned that a general vaccination was to be carried out for all the inhabitants at Aswan Province. This as well as the general vaccination at Girga Province was accomplished this year.

Influenza

The number of cases notified amounted to 5,900 of which 301 ended with death, *i.e.* at a rate of 5·1 per cent. The majority of the cases was of a mild character and unaccompanied with pulmonary complications.

Measles

The case-rate of this disease was greater than that of the previous year. The number of cases notified to the Health Authorities amounted to 10,709 of which 3,507 ended with death, *i.e.* a rate of 32·74 per cent as compared to 4,470 cases, 1,112 deaths and a death rate of 24·87 per cent last year.

The increase in the cases of this disease can only be attributed to the system adopted for the notification being more accurate than that of last year. The high death-rate is due to the complications of the disease, to the mothers' ignorance and to the crowded unhealthy sites.

Diphtheria

Of the 2,165 cases notified, 894 ended with death, *i.e.* a rate of 41·29 per cent as compared to 2,073 cases, 856 deaths and a death-rate of 41·29 per cent last year. It is to be noted that the death rates in the two years are equal.

The Department in its last year's report stated that a large campaign was directed at the end of the said year for combating this disease by vaccinating the largest possible number of infants between the ages of 2 and 12 years with Anatoxin-Ramon, in order to immunize them against the disease. The result of this campaign as noticed during 1931 is detailed hereunder :—

Number of children vaccinated			Number of cases detected amongst the children vaccinated		
1st inoculation	2nd inoculation	3rd inoculation	After the 1st inoculation	After the 2nd inoculation	After the 3rd inoculation
57,549	43,162	56,146	4	2	7

It was noticed that no important complications resulted from vaccination with the Anatoxin-Ramon, with the exception of slight local reaction, which usually disappeared within one or two days.

Malaria

Researches were carried out in 76 different localities for splenomegaly percentage. The researches lead to a rate varied between 8 and 40 per cent in some localities of the northern part of Daqahlîya Province, and less than 5 per cent in the southern part of that Province. In some of the localities of Qalioubîya Province at Gabal el Asfar, in which the disease is considered to be endemic, the rate varied between 7 and 58 per cent while it is between 8 and 26 per cent in some localities at Faiyûm Province and less than 5 per cent at Upper Egypt Provinces.

The Department guided by the above results, has directed its care and researches to the regions and localities more liable to be threatened with malaria.

The total number of malaria cases which occurred this year amounted to 1,230, of which 22 cases ended with death, all over Egypt including the Frontier Districts. This number, compared with that of last year, *i.e.* 924 excluding 787 cases in the Frontier Districts, proves the great decrease in the case-rate of the disease in spite of the fact that the notification of its cases has become compulsory from May 1930 only.

Khanka Malaria Station.—The number of attendances during this year was 1,332 patients of whom 150 were found to be suffering from malaria, *i.e.* a rate of 11·26 per cent. 63 of these infected patients were suffering from malignant malaria, *i.e.* a rate of 42 per cent.

With the exception of some malaria cases which occurred simultaneously amongst the labourers of the Egyptian State Railways Workshops at Abou Zaabal as a result of the endemicity of the disease at 'Ezbet Mershak and 'Ezbet Baghous (Menayar village, Belbeis District) no epidemics outbroke in any of the localities of Egypt.

Usual precautions were taken for the protection of the inhabitants of these localities by distributing quinine, filling up or covering unused wells and *sakyas* amounting to 1,102, removing reeds from drains, as well as the deepening and maintenance of these drains, and the stamping out of mosquito breeding places in houses and their annexes. The *birkas*, *sakyas* and wells which were not filled or covered for any reason whatsoever, were supplied with considerable quantities of fishes that breed on mosquitoes larvae.

Health propaganda, in addition to the above precautions, was carried out by distributing circulars and health advices amongst the station attendants.

The number of mosquitoes caught amounted to about 8,000, the majority of which was of the culex kind, but the anopheles were very rare.

The number of patients who attended Faîyûm Malaria Station amounted to 1,788 of whom 402 were suffering from malaria (a rate of 22·48 per cent) ; 47 malignant cases were detected amongst the patients (a rate of 11·69 per cent).

It was noticed that some mosquitoes of the 3,265 culex and 158 anopheles caught, were proved, on dissection, to be free from malaria infection.

The necessary measures for the extermination of mosquito breeding places inside or outside the houses, were taken at Faîyûm City and its suburbs.

The Malaria Law was made applicable to the following localities :—

El Manyal—Shebin El Qanatir District	El Gabal el Asfar region.
El Menayar—Bilbeis District	
Bahteem, Mustorod, Begam, Damanhûr Shubra and Shubra el Kheima	Cairo Suburbs.

Fever Hospitals

The number of Fever Hospitals till the end of 1930 was 11, when the New Zagazig Fever Hospital, comprising 40 beds, was delivered to this Department by the State Buildings Department. It was opend for work on February 1931 and the patients of the old hospital were transferred thereto. On October 4, 1931, Shebîn el Kôm Fever Hospital of 40 beds accommodation was officially opened for the treatment of patients.

As regards Beni-Suef New Fever Hospital of 24 beds, it is expected to be delivered to this Department at the beginning of 1932.

Alexandria Municipality, in conjunction with the Department of Public Health, started the construction of a fever hospital of 100 beds accommodation at Alexandria. The Department paid L.E. 15,000, its share in the construction expenses of the hospital which is expected to be opened at the beginning of 1932, and the old fever hospital at Shatby will thence be cancelled.

The number of fever hospitals in Egypt has thus become 13 ; to which 9,205 patients attended during the year 1931 for treatment.

At the outbreak of measles in some localities at Giza, the Department established a travelling dispensary at Embaba in August 1930. 3,185 children were treated therein during 1931, and the following specimens were taken therefrom for examination :—

1,781	specimens	for vidal reaction.
1,660	,,	for malaria.
1,530	,,	of faeces.
765	,,	of urine.
12	,,	for diphtheria.
13	other examinations.	
5,761	Total.	

Of the above-mentioned specimens, the following infectious disease cases were detected :- -

36 Typhoid.
33 Paratyphoid.
2 Malaria.
10 Dysentery (Amoebic).
12 Dysentery (Bacillary).
3 Mumps.
77 Measles.
2 Diphtheria.
2 Chicken pox.
2 Erysipelas.
35 Whooping cough.

(b) *Safeguarding the Country from Imported Epidemics.*

The Department took the necessary measures for safeguarding Egypt from the imported epidemics by putting under observation the passengers arriving to the country either by land, sea or air. The most important of these passengers were pilgrims of the Holy Lands.

Pilgrimage.

The number of Egyptians who left for Hedjaz during this year for pilgrimage was 4,935 of whom 16 died at Hedjaz, 3 at Tor and the rest returned home where they were put under observation for the statutory period.

Thirty-six pilgrims out of those who returned to the country were found suffering from the following diseases :—

Infectious Diseases.	Number.	Ordinary Diseases.	Number.
Influenza	3	Senility	4
Dysentery	5	Catarrh of the colon	2
Pulmonary tuberculosis	1	Pneumonia	2
Paratyphoid	2	Diarrhœa	5
		Gastro-enteritis	4
		Dispepsia	2
		Intestinal Putrefaction	1
		Biliary Obstruction	1
		Abscess of the left axilla	1
		Chronic Bronchitis	2
		Heart failure and Oedema...	1
Total	11	Total	25

The Department has carried out the same measures adopted during pilgrimage in previous years prior to the departure of pilgrims. Such measures involved vaccinating the pilgrims against cholera, typhoid, small-pox before departure, and the observation of their health after return.

Three dispensaries, fully equipped and staffed, were sent in company with pilgrims. One was stationed at Mekka and was charged with the work at El Medina El Menawara when the rites of pilgrimage are over ; the second at Jeddah and the third at Yembu'. Two first-aid motor ambulances were also provided : one was attached to Mekka and the other to Jeddah Dispensaries. Arrangements were also made for stationing the two ambulances at the regions of Mekka, 'Arafât and Mona during the performance of the pilgrimage rites.

The following table shows the number of patients treated in the dispensaries above referred to :—

Table No. XXII

Dispensary	Number of outpatients.			Number of in-patients.			Grand Total
	Egyptians	Non Egyptians	Total	Egyptians	Non Egyptians	Total	
Mekka	767	2,213	2,980	—	—	—	2,980
Medîna	501	1,503	2,004	—	—	—	2,004
Yembu	677	335	1,012	9	4	13	1,025
Jeddah	125	1,525	1,650	—	—	—	1,650
Total	2,070	5,576	7,646	9	4	13	7,659

Moreover, the Eastern Desert and Red Sea routes were carefully controlled in order to intercept any pilgrim trying to enter the country through these routes escaping the medical observation.

The Quarantine Board notified the Department on May 11, 1931, that no infectious disease cases occurred amongst pilgrims during their pilgrimage or their journey. At Tor, 2,800 Egyptian and foreign pilgrims were examined and found to be sound and free from dysentery, small-pox and other infectious diseases.

970 faeces specimens were taken from pilgrims and the result of their examination was found negative for cholera.

The said Quarantine Board decided that the 1931 pilgrimage was "Net"; but on May 25, 1931, the Quarantine Board telegrammed the Department stating that some pilgrims who reached Tor were detected to have cholera agglutinating vibrio in their faeces, and the pilgrimage was therefore considered to be "suspected." The Department on approving of the Board's resolution, carried out the following precautions :—

(1) No permits were given to pilgrims to return from Suez to Cairo by land. Pilgrims' reception by steam-launches, before ship's embarkment, and before their medical examination was prevented.

(2) A circular was addressed by the Department to its Medical Officers for the necessity of carrying out the following precautions :—

(*a*) Thorough examination of the efficacity of the schemes laid down for combating cholera.

(*b*) Ascertaining the provision of a sufficient number of cholera specimen boxes at Health Offices, and of their contents.

(*c*) Following the instructions regarding the pilgrims accurate medical examination on their return home.

The Department has charged Mudirias and Governorates Health Inspectors with a weekly tour of inspection of the Health Offices within their circumscription in order to ascertain the execution of the instructions regarding pilgrims, and for training the Medical Officers recently appointed in the Department's Service to perform this work satisfactorily.

The supervision of the execution of the said instructions by Mudiria Health Inspectors and District Medical Officers was imposed upon the Divisional Health Inspectors.

The Department asked the Quarantine Board to detain at Tor all pilgrims whose faeces contain suspicious vibrios, whether these vibrios are agglutinated by the specific serum or not, until three negative results are reported. All the pilgrims arriving from Hedjaz at the Eastern Coast of the Red Sea and at the Sinai Peninsula, were isolated in case they did not pass at Tor the statutory period of eight days ; and they were not given "Libre Pratique" unless their faeces examination proved to be of negative results in three consecutive times.

Arrangements were made to keep large stocks of cholera vaccine at the Central as well as the Provincial Public Health Laboratories.

The Ministry of the Interior was asked to instruct the Administrative Authorities to give the necessary assistance to the Public Health staff in carrying out their duties.

On this occasion, the Department suppressed all leaves of absence granted to some of its officials and employees to spend in the interior of the country or abroad.

Passengers Control

The work of passengers observation was very satisfactory, as the number of passengers arriving *via* the Egyptian ports who were traced and put under observation was 31,773, out of 31,793, *i.e.* a rate of 99·93 per cent. Of the 23,147 passengers arriving *via* Kantara 23,116 were observed, *i.e.* a rate of 99·86 per cent.

In view of the outbreak of cholera at Bombay (India) during this year, it was decided to apply the same precautions, taken in 1930, which were detailed in last year's report.

As a result of the outbreak of plague at 'Iraq and Beyrout, the Department issued the necessary instructions to Ports Health Offices to annotate the observation lists of passengers coming from the said localities to the effect that such passengers should be put under careful observation.

The Department having learnt that dengue fever has appeared at Siros Island in a violent state, instructed Port-Said and Alexandria Port Health Offices to examine carefully all passengers arriving at these ports to annotate their observation list to the effect that they should be carefully observed for dengue.

Owing to the outbreak of small-pox in 'Iraq, the Department of Public Health charged the Port Health Offices with the duty of annotating the observation lists of passengers coming from the said country that they should be put under observation for this disease.

Cholera Outbreak at 'Iraq and Persian Gulf

In view of the outbreak of cholera in 'Iraq and the Persian Gulf, the Department decided to adopt the necessary measures for safeguarding the country on the basis of those previously adopted in 1927, on the occasion of the outbreak of this disease in 'Iraq. An agreement was arrived at among the neighbouring countries for the unification of schemes to be adopted in this connection.

The prophylactic measures taken by the Department for safeguarding the country against cholera are briefly stated hereunder :—

There are four routes of communication between 'Iraq and Egypt, as follows :—

(1) Motor-car route from Bagdad to Damascas, thence by railway to Beyrout and by sea till Egypt (requiring about 60 hours journey).

(2) Motor-car route from Bagdad till Damascas and thence by railway to Kantara (requiring about 40 hours journey).

(3) Air route from Basrah to Bagdad and thence to Gazza and Heliopolis (less than 24 hours journey).

(4) Red Sea route to Suez and other Egyptian ports (about 12 days journey).

Moreover, the Department has taken in conjunction with the Quarantine Board, and the Sanitary Services of the countries between Iraq and Egypt, the following stringent precautions with regard to passengers arriving by all the above routes, for the protection of Egypt against this disease.

Routes I and II.—Passengers arriving by motor-cars (either *via* Beyrout or Kantara).

The Port Medical Officers should inspect the passports of the passengers arriving by Sea, *via* Beyrout, and the Medical Officers of the Passengers' Control Health Offices at Kantara should also examine the passports of those arriving via Palestine by rail. Every passenger who had not passed five complete days since his departure from the infected region should be isolated for the necessary period to complete these five days. Two specimens of his faeces are to be taken, at least 24 hours between each specimen and the passenger will not be allowed to resume his voyage, unless the result of the examination of the specimens for cholera vibrio is negative. In case the date of departure from the infected localities is not definitely known, the passengers should be isolated and all the measures above referred to are to be taken against them.

As regards passengers arriving from such regions after the lapse of five days from the date of their departure from these regions, their luggage will be disinfected, and the first and second class passengers among them are allowed to get into this country, if found in good health. As regards the 3rd class passengers, if any of them does not give a sufficient and known address, he should be isolated and two specimens of the stools should be taken for examination.

In case the bacteriological examination of stools of any passenger proves that there are non-agglutinating vibrios, the following measures are to be taken in regard to him :—

(*a*) If the passenger suffers from diarrhoea, he should remain in isolation until he becomes convalescent and the consecutive results of the examination of two specimens of his stool, taken within one week, after giving him a purge, are negative. Contacts should be observed for a period of ten complete days.

(*b*) In case of the absence of gastro-enteric symptoms, no other precautions are to be taken.

In the event of a negative result but the symptoms or circumstances suspected, another sample should be taken. No other formalities are to be adopted in case the second sample proves negative.

If in such cases, the passenger dies on receipt of the result of the first sample, samples are taken from his contacts after giving them purgatives and the precautions *re* control are to be still taken in regard to all of these contacts for 10 complete days.

In all the above cases, all food stuffs and drinks found with passengers should be destroyed. The observation lists sent to the Medical Officers of the destinations of passengers should be annotated to the effect that such passengers have arrived from Basra, the Persian Gulf, or any other locality of 'Iraq infected with cholera, and that they should be put under strict observation for cholera.

Route III.—Passengers arriving by air route.

The Imperial Airways Company was notified that passengers and aeroplane crew arriving from the Persian Gulf, Basra or any other locality in 'Iraq should be in possession of a certificate testifying that they have been vaccinated against cholera twice, five days at least between each vaccination. This certificate should be dated at least five days before landing and three months at most. The passengers should land at Heliopolis, and they are not entitled to disembark at Gazza to complete their voyage to any locality in Egypt by rail or any other means of transport.

In accordance with an agreement between the Department and the International Quarantine Board, the Medical Officer at Heliopolis under the supervision of the Infectious Disease Control Section, D.P.H., and the Principal Medical Officer of Health, Cairo City, carries out the quarantine work at Heliopolis, and isolates passengers for the necessary period to complete five days from date of their departure from the infected locality, and examines their stools twice.

As regards the aeroplane crew, these are subject to special arrangements. They are only submitted to sanitary control on condition that they should have a vaccination certificate, as referred to above; otherwise, the procedure followed in the case of the other passengers, namely, isolation and examination of stools, are carried out.

Registered or ordinary parcels arriving by aeroplanes to Egypt should be examined by the Medical Officer of Heliopolis to see if they contain food stuffs or drinks ; the necessary measures are taken in their case according to their nature and condition. Parcels in transit *via* Egypt to the destination of other countries abroad are to be left unopened, but these countries should be notified to the effect that such parcels are emanating from infected regions and have not been inspected.

The Imperial Airways Company were also requested not to allow their passengers to throw their dejecta (vomiting and faeces) out of the aeroplane, and that the Company should provide the aircrafts with pans from which this dejecta should be emptied into water proof sacks. The contents of these sacks are to be dealt with by the Sanitary Authority of the Heliopolis Aerodromes. No other articles are to be thrown from aircrafts during their flight on Egyptian territory.

The Company was requested, as well, that passengers and crew, suffering from the slightest form of diahrroea, should not be allowed to travel by aeroplane.

Route IV.—Passengers arriving *via* Red Sea.

Instructions were duly issued regarding these by the Quarantine Board.

Passengers arriving by land via Sinai and the Red Sea Coasts :—

Owing to the fact that some of the Arabian ports are near Basra, and owing to the liability of the Hedjaz to infection with the disease, the Department decided that the annual routine pilgrimage precautions should be taken in Sinai Peninsula and in the Red Sea coasts for the accurate safeguard of the country.

In view of the fact that the passengers arriving from 'Iraq *via* 'Akaba and Sinai Peninsula can get into the country from a site, on the Eastern Coast of Suez Canal, at a distance of about four miles from Ismailiya, the Department stationed a disinfector with a tent to detect all passengers arriving to this site. Persons suspected to be arriving from 'Iraq or any other infected locality are to be examined and observed by Ismailiya M.O.H.

Kantara being the most important route from the point of view of the danger of the infection of the country with cholera by passengers arriving from 'Iraq by land, and the Medical Officers in charge of the control work there, being recently appointed, the Department delegated one of its senior Inspectors to supervise the work there so long as the country is menaced with this epidemic.

The Royal Air Force, British Army.

The Royal Air Force was notified that owing to the outbreak of cholera at the Persian Gulf and Basra, it was decided that all passengers arriving to Egypt from infected regions should have certificates to the effect that they have been vaccinated against cholera twice at least, five days between each vaccination. Such certificates should be dated since at least five days and at most three months.

The Department has also requested the R.A.F. to notify the Epidemic Section, D.P.H., of the date and time of arrival of each aeroplane from Basra a sufficient time before its arrival. The said Section should also be informed of the result of the observation of all persons arriving by the Royal Air Force aircrafts from Basra. In case the result of the examination of the stools of any of them is positive or suspected, a culture of the specimen is to be sent to the Central Laboratories, Cairo. The R.A.F. was also requested to take strict measures against all persons arriving from Basra, without exception. The R.A.F. has given the necessary instructions to its units accordingly.

The British Army.

The British Army Headquarters were requested to isolate the British Army men, and their families, arriving from infected regions, at Port-Said, Suez and Kantara, at the Army's Hospital to complete the period of five days from the date of their departure, or until it is proved that they do not convey the infection.

The native labourers accompanying these forces should be handed over to the Public Health delegates. Notifications *re* suspected and sure positive cases occurring amongst army men and their families, arriving to Egypt from infected regions, should be sent to the Department and to the Medical Officer of the locality concerned.

The British Army Headquarters agreed to the above arrangement and gave the necessary instructions to its units accordingly.

Conditions of the importation of food stuffs and drinks.

The Department, in agreement with the Quarantine Board, has laid down the following instructions :—

(1) *Food stuffs in General.*

(*a*) All completely dry food stuffs are admissible to Egypt.

(*b*) The admission of fresh food stuffs depend in general upon the nature and method of their packing. They should be clean, and there should be no suspicion, whatever, of their being contaminated. Properly packed dates are admissible, and the Department has the power not to authorise the sale of dates which are very fresh, unclean or suspected to be contaminated.

Dates emanating from infected regions are not admitted unless 25 days have elapsed from date of their exportation.

(2) *Drinks.*

All non-alcoholic drinks are to be examined and may be refused or admitted as may be deemed necessary.

As regards alcoholic drinks, their admission depends upon the quantity of alcohol they contain.

The provisions of the 2nd para. is within the circumscription of the Department of Public Health.

(3) *Food stuffs and drinks passing via Egypt* (*in transit only*).

Dates, food stuffs and drinks passing *via* Egypt in transit are to be examined by the Officials of the Quarantine Board and of the Department of Public Health, who will not authorize their unloading for despatch to countries of destination unless they ascertain that they do not constitute any danger.

CHAPTER IV

HEALTH INSPECTORATES' SECTION

(1) General

As a result of the cancellation of the Health Department, the work of this Section was increased to a great extent especially after the incorporation of the Frontier Districts Medical Section in July, 1931. The Assistant Director of this Section was charged with the inspection of the Frontier units during the year and he has given the necessary instructions to the Department's staff of these units for raising the sanitary state there to a higher standard. Brief notes on the work of the Frontier units are stated hereunder.

The work of the Health Divisional Inspectors is gradually increasing as a result of the increase of the number of the Health Offices, and the sanitary work in general, in consequence of the spread of public culture and civilization, and in view of the fact that they are charged with the supervision of the work dealing with the control of the infectious and epidemic diseases. The number of these inspectors will be, therefore, increased when the financial situation permits.

This Section exercised great efforts in carrying out the different branches of work within its circumscription, such as the enquiries relating to the staff of the village hospitals, the determination of the equipment and drugs establishments required for general health-offices, Ports and Lighthouses Health Offices, and Bureaux des Moeurs. The Director of this Section is also charged with the presidency of the Contracts Board at the Central Stores.

(2) Medico-Legal Services

Although the Medico-Legal Department has established some special branches in the provinces, yet this Department's Medical Officers still perform a considerable amount of Medico-Legal work. The number of accidental cases examined amounted to 20,450 as compared to 20,563 in the last year and that of the criminal cases amounted to 70,309 compared with 71,102 in 1930.

(3) Prostitutes

The total number of prostitutes on the registers at the end of 1931 was 4,055 on whom 117,006 exminations were carried out. 610 prostitutes were found suffering from syphilis, 2,535 from gonorrhoea and 177 from other diseases.

(4) State of Public Health in the Frontier Districts

The state of public health in the Frontier Districts was favourable in general with the exception of : (1) Dakhla Oases where 781 cases of measles and 22 of typhoid fever appeared. (2) Kantara in which 113 cases of measles were detected, and Kharga Oases where some cases of measles also appeared. (3) El Kosseir in which some of the inhabitants were attacked with influenza. The rest of the Frontier Districts were nearly free from the infectious diseases during 1931. It is worthy of mention with pleasure that these districts were not infected with cerebro-spinal meningitis as only two cases at 'Amrîya and one case in Sallûm were detected.

The number of Malaria cases amounted to 286, measles 942, typhoid 30 and small-pox 11 as compared to 787, 2005, 14 and 3 respectively in 1930.

The total number of the visits of patients to the in and outpatients Departments of the Frontier Districts Hospitals and Health Offices amounted to 145,170 as compared with 147,062 in last year.

The number of births amongst the population amounting to 97,000 was 5,269 at a rate of about 54 per thousand population and that of deaths was 2,689 *i.e.* a rate of about 27.5 per thousand population as compared to 52 per thousand births and 28 per thousand deaths last year.

The Frontiers Medical Officers have carried out 1,549 operations as compared to 987 in last year. This increase is due to the fact that the beduins have begun to understand the value of the medical treatment and operations performed at the Hospitals, while they used in the past to refrain from such treatment and especially were always afraid from being operated.

The Department has directed special attention to the combating of the endemic and eye diseases prevailing in the frontier zones and has sent, at intermittent intervals of time, some of its specialists to these districts for the treatment of patients and given the necessary advices to the inhabitants.

On January 1931, a mission, constituted of H.E. Dr. Ali Ibrahim Pasha, the Dean, Faculty of Medicine, Dr. Khalil Abdel Khalek Bey, Director, Researches Institute, accompanied by other Doctors and Assistants, proceeded to Dakhla Oases for a period of more than a fortnight to carry out scientific researches in connection with Bilharziasis and Ankylostomiasis.

An oculist has also been detailed in November 1931 to proceed to Dakhla and Kharga Oases for the treatment of patients suffering from ophthalmic diseases. He stayed there for a period of two months for this purpose. The number of cases treated amounted to 1,080 and that of operations performed to 333.

The Majority of the Frontier Districts Health Offices were provided with special motor-cars for the performance of the necessary inspection of the districts within their circumscription and for enabling them to be always on the alert for combating the spread of diseases and other work of sanitation.

The Department has also decided to gradually train this Section's Medical Officers on the ophthalmic and Medico-Legal Work.

CHAPTER V

CHILD WELFARE

As a result of the increasing popularity of the Child Welfare Centres and the greater affluence of people frequenting these institutions, the activities and efforts of the Child Welfare Section have necessarily continued to increase from year to year. A new Centre was opened in 1931 at Menouf to which Shebîn el Kôm *Dayas* School was transferred. The Mansûra Municipality, in conjunction with Daqahlieh Provincial Council, has established a Child Welfare Centre at Mansûra, whose direction was entrusted to the Department. Benha Travelling Child Welfare Hospital was transferred into a fixed Centre for which a special house was hired. The same thing was done with the Child Welfare Hospital at Gîza, and thus all the Child Welfare Travelling Hospitals were converted into fixed centres. Considering that Gîza Province was deprived of a Maternity School, where a higher class *dayas* (Midwives) can be trained in midwifery according to modern methods, the Department called the attention of Gîza Provincial Council to the necessity of providing the said Province with such a school, and the Council agreed to pay to the Public Health Department a sum of L.E. 200 annually for the erection of a Maternity School to be annexed to Gîza Child Welfare Centre. Arrangements are being made to open this school at the beginning of 1932.

The medical students were previously trained in midwifery at one Child Welfare Centre only ; but as their number has been doubled, they are now trained in this branch at Shoubra and El Darb el Ahmar Child Welfare Centres.

The number of deliveries attended to by the Child Welfare Centres in 1931 amounted to 24,692 as compared with 17,758 in 1930, *i.e.* an increase of 39 per cent ; that of attendances of old pregnants was 131,339 in 1931 compared to 106,931 in 1930 (22·8 per cent increase) ; and that of new pregnants was 34,379 against 29,451 in 1930 (an increase of 16 per cent).

The blood samples taken for analysis amounted to 34,817 as compared to 27,532 in 1930. This is in addition to the work carried out by the Child Welfare Centre in Kasr el ʿAini Hospital. The above figures show the marked increase in the work of the Child Welfare Section in spite of the fact that only two new centres were establishd ; the one belonging to the Department at Menouf and the other to Mansûra Municipality as previously stated.

The Department tries always to send scientific and practical missions abroad in order that their members may acquire higher qualifications and increase their knowledge in the different branches of medicine and technical researches. Two doctors were actually sent in 1931 : one for specializing in obstetrics and the other in Surgical Tuberculosis. A doctress is still on mission and she is expected to return home in 1932.

The lectures (28,775 in number) delivered by the Centres to pregnants and mothers on the care that should be taken of pregnants, children, as well as the clothing and dwellings, etc., were very fruitful. The pregnants and mothers do not only compete in hearing such lectures and following the advices given to them in this connection but they also propagate these advices amongst their relatives and friends. It is beyond doubt that such fruitful efforts tending to enlighten the minds will, at last, succeed in future in deracinating superstitions. The mothers now attending the Child Welfare Centres have become acquainted with the symptoms of some of the infectious and other diseases which frequently appear among children, and with the prophylactic methods against them, and are now aware of the necessity of consulting a doctor on the appearance of such symptoms.

It clearly appears from the above that the useful efforts displayed by the Child Welfare Centres have resulted in abating the mortality rate amongst the children attending these centres and in reducing the cases of abortion, while cases of puerperal fever became so rare that they were almost inexistent among the deliveries attended by the said centres, for these cases did not exceed 14 among 24,692.

Several improvements have been realised both in the delivery work and in the state of health in the houses of inhabitants visited by the staff of the Child Welfare Centres and this explains the very great affluence of people frequenting these centres.

Dayas (Midwives)

The midwives' work is inspected from time to time by the Midwives Inspectresses who make their tour of inspection twice or thrice a year throughout the country. During the year 1931—71 midwives died. The number of candidates graduated at Dayas (midwives) Schools and were licenced, during 1931, to practise their profession amounted to 212 dayas (midwives) and this is the reason of the great improvement now observed in the delivery work and of the marked decrease in the rate of the puerperal fever cases occurring in the different parts of Egypt, except in Minûfîya Province and in Esna town.

As the Child Welfare Section takes the necessary precautions in every case of puerperal fever detected, it is hoped that the number of such cases will greatly diminish or will totally disappear. The number of puerperal cases occurring in 1931 amounted to 562 of which 423 (a rate of 75·26 per cent) ended with death as compared with 658 cases, *i.e.* a decrease of 14·5 per cent.

Sea Sanatorium

The number of new children admitted into Alexandria Sanatorium in 1931 was 71 for treatment from bone tuberculosis and surgical tuberculosis diseases, and the number of patients who attended the outpatients department amounted to 12,252 of whom 5,364 were new patients and 6,888 were old patients.

Asylums

Cairo Asylum.—This asylum is intended to receive foundlings from all parts of Egypt except those found in Cairo who are admitted into the Foundlings Asylum at Kasr el Aini Hospital and those of Alexandria Governorate who are admitted into the Asylum at Alexandria.

A long lapse of time usually passes in case the foundling is sent to the asylum from a distant locality. The child in this case is found to be weak and sometimes suffering from chest and internal diseases, besides some criminal signs which are observed on its body such as wounds, burns, etc., which are ordinarily reported to the Administrative Authority, and this explains the high rate of mortality amongst these wretched creatures.

The number of foundlings admitted into this asylum in 1931 was	134
The number of foundlings remaining from previous year...	84
Deaths	71
Adopted	13

Remaining at the end of 1931—134 of whom 94 were given to wet-nurses outside the Asylum, and 40 were reared in the in-patients department of the Asylum.

Illegitimate children are also admitted either to avoid a danger threatening the mothers or owing to the poverty of mother.

Alexandria Foundlings Asylum.—This Asylum is only devoted to foundlings gathered within the circumscription of Alexandria Governorate. Some of these foundlings, when attaining two years of age, and their lives become no longer exposed to danger, are put under the care of El 'Abbassi Asylum belonging to the Mohammedan Orwa-El-Woska Benevolent Society, where they are brought up, and this is the reason why these foundlings were not delivered for adoption except under the special conditions laid down by the said Society. Some of the persons desiring to adopt foundlings are found to be unable to fulfil the Society's conditions, while they fulfilled those imposed by Cairo and Kasr-el-Aini Asylums. The Department having noticed that the Society refused the admittance of some foundlings at El 'Abbassi Asylum on the plea that there were no vacancies for them, decided that Alexandria foundlings should be delivered for adoption under the conditions stipulated by Cairo and Kasr-el-Aini Hospital Asylums.

Number of foundlings admitted into that Asylum during 1931 was ...	31
„ „ remaining from previous year	56
„ „ adopted	2
„ „ who died	43
„ „ remaining at the end of 1931	42

all of whom are in the in-patients department.

Foundlings Asylum at Kasr el Aini Hospital.

Statistics :

(*a*) Number of foundlings remaining till December, 1930	112
(*b*) „ „ admitted during the year 1931	115
TOTAL	227

Out of this number :—

(*a*) 106 died during 1931.

(*b*) 1 was taken back by his relatives.

(*c*) 30 adopted.

(*d*) 25 weaned and remained at the Hospital (Asylum).

(*e*) 65 delivered to wet-nurses outside the asylum.

The death rate among these foundlings amounted to 46·7 per cent in 1931. Their death was due to the following reasons :—

Diseases of the digestive system, including amoebic dysentery with liver abscess	26
Diseases of the respiratory system	46
Emaciation	9
Hereditary debility and premature birth	1
Infectious diseases (7 measles, 1 diphtheria, 1 consumption and 3 cerebro-spinal meningitis)	12
Injuries (due to pregnancy, etc.)...	2
Different diseases	10
TOTAL	106

All the infants over the age of six months were, as in previous years, immunized against diphtheria with Anatoxin-Ramon vaccine. One fatal diphtheria case occurred, during the year, to a child under the age of six months who had not been inoculated with that vaccine. The number of infants vaccinated with that Anatoxinamounted to 61. Ninety-seven infants were examined for Wassermann reaction and one positive case only was found.

During the year 1930, measles spread in a mild form but it was rapidly stopped. Sixteen infants were infected with the disease, of whom seven died (five at Abbasiya Fever Hospital and their death was most probably due to broncho-pneumonia ; and two died a short time after leaving hospital as a result of other complications).

DISTRIBUTION OF MILK AND CLOTHES

The Child Welfare Centres distributed, during the year, 13,446·5 kilos. of milk to poor mothers and to those whose natural milk is insufficient for feeding their children.

Some of the Administrative Authorities proposed to prepare tickets, giving right to get food gratis at the National Restaurants, for distribution among pregnants and poor mothers at the Child Welfare Centres. This proposal was actually carried out at El Mahalla

el Kobra District, where the *Mamour* delivered to the Child Welfare Centre there about the end of the year 1931—200 free food tickets in order to be distributed for the above purpose.

The Department also distributed cloths and ready made clothes, some of which are contributed by benevolent persons. The Department distributed, during 1931—1,584 clothings and 4,349·5 metres of cloth.

Contributions

Some charitable persons offered to the Child Welfare Centres cloth and clothings for distribution to poor pregnants and children. Some of this cloth was sewed by the pregnants themselves at the Centres where they were taught how to sew clothings.

Children Dispensaries

There are nine children dispensaries some of which directed by the Provincial Councils and the others by Municipal Councils.

The following details show the amount of work carried out by the said dispensaries during the year:—

Table No. XXIII.—Showing Number of Cases treated at the Provincial Councils' Dispensaries in 1930 and 1931.

Name of Dispensary	Number of attendances		Number of days work	
	1930	1931	1930	1931
Damanhûr	10,996	36,313	298	299
Shebin el Kom	5,668	33,287	312	300
Beba	5,190	37,158	299	299
El Wasta	4,362	44,458	297	299
Port-Said	17,697	46,253	121	258

Childrens' Sections in Hospitals

Name of Hospital	Number of attendances
Kasr-el-Aini	62,626
Alexandria	10,170
Benha	18,127
Asyût	18,964

TABLE No. XXIV.—SHOWING THE WORK DONE AT THE CHILD WELFARE CENTRES DURING 1930 AND 1931

Cases	Total number of centres in 1930	Total number of centres in 1931
	25 centres	27 centres
Number of re-visits of pregnants	106,931	131,339
,, pregnants	29,451	34,379
,, ,, suffering from Gonorrhoea	13	15
,, blood samples taken	27,532	34,817
,, infants who attended the Centres	277,020	339,835
,, ,, ,, ,, ,, outpatient departments	67,466	109,718
,, circumcision operations performed at the Centres	808	1,433
,, infants vaccinated against small-pox at the Centres	17,176	19,157
,, ,, ,, ,, diphtheria at the Centres	3,798	10,228
,, lectures delivered by Medical Officers at the Centres	2,853	3,679
,, visits made by M.O. to sick pregnants	189	328
,, ,, ,, ,, ,, puerperals	1,718	2,107
,, ,, ,, ,, ,, infants	1,199	809
,, deliveries attended to by midwives	8,375	11,169
,, ,, ,, ,, by assistants	9,141	13,275
,, ,, ,, ,, by M.Os.	242	248
,, ,, ,, ,, women coming from outside, unregistered	2,418	3,208
Total number of deliveries	17,758	24,692
Number of the Centres' Pregnants who were delivered elsewhere	645	1,056
,, pregnants who were sent to hospitals for delivery	320	460
,, deliveries which occurred before the arrival of Centres' Staff	1,706	1,854
,, of still-births at full term	319	354
Number of premature still-births:—		
In the first seven months	260	320
After the seventh month	120	102
Mothers' deaths caused by delivery	18	12
Infantile deaths in the first month of age	391	374
Number of Midwives visits to pregnants in the seventh month	13,854	16,183
,, ,, ,, puerperals	135,385	169,919
,, of other visits	12,115	17,313
,, of lectures delivered by Midwives	5,186	5,015
,, cases of puerperal fever	22	14
,, samples of urine taken	90,827	113,731
,, ,, ,, which contained albumen before delivery	4,465	5,203
,, ,, ,, ,, Glucose before delivery	487	638
,, house visits of Health Visitors to pregnants	18,699	18,472
,, ,, ,, ,, infants	24,222	25,912
,, other visits	27,215	27,357
,, lectures delivered by Health Visitors on nutrition	4,217	4,872
,, ,, ,, ,, clothes, and how to cut them out	3,710	4,785
,, lectures delivered by Health Visitors on infantile and pregnancy diseases	4,296	4,935
Number of lectures delivered by Health Visitors on cleanliness and on the hygiene of child and mother	4,154	5,489
Contributions to mothers: "Milk"	31,170·75 kilos.	13,446·5 kilos.
Contributions to mother and child (ready made clothes)	1,921	1,584
Contributions to mother and child (Cloth)	1,396·5 mets.	4,349·5 mets.
Number of deaths of sucklings under one year of age	1,032	1,106

CHAPTER VI
SOCIAL HYGIENE

(1) Venereal Diseases

Hospitals and Clinics.

The number of hospitals and clinics for the treatment of venereal diseases stands as it was in last year. The following statistical details show the dates of their construction and the number of beds they contain :—

Table No. XXV

	Number in 1925	New Units						Total
		1926	1927	1928	1929	1930	1931	
Venereal diseases hospitals	2	—	—	—	—	1	—	3
Venereal diseases outpatients clinics ...	2	—	4	4	4	—	—	14
Number of beds	423	—	—	—	—	(A)	—	423

(A) Number of beds includes that of Suez General Hospital.

Patients' Treatment.

The number of patients treated from venereal diseases amounted to 5,464 in the in-patients Departments as compared with 5,639 in last year with a decrease of 3·2 per cent. The number of patients treated at the outpatients clinics was 42,024 as compared to 33,363 in last year (with an increase of 25 per cent), while the number of hospitals and clinics remained as it was last year. The following list shows details of the work carried out :—

Table No. XXVI

	In-patients			Outpatients		
	Syphilis	Gonorrhœa	Total	Syphilis	Gonorrhœa	Total
General Hospitals	731	1,771	2,502	10,119	4,753	14,872
Venereal and Lock Hospitals	1,616	1,346	2,962	—	—	—
Outpatient clinics for venereal diseases ...	—	—	—	1,0332	16,820	27,152
Total	2,347	3,117	5,464	20,451	21,573	42,024

(2) Chest Diseases

New Units.

It was already stated in last year's report that a site had been provisionally selected at Suez for the erection of a tuberculosis sanatorium. On re-examining this subject, however, the Department did not arrive at a final decision as there are other localities from which a more suitable site for the purpose may be selected.

The Daqahlieh Provincial Council has presented a piece of land for the erection thereon of a new dispensary for chest diseases at Mansoura.

X-Ray Apparatus.

X-Ray apparatuses were installed in each of the two chest diseases dispensaries of Cairo.

Patients' Treatment.

The number of patients examined at the chest diseases dispensaries this year amounted to 22,014 of which 581 were found positive for tuberculosis, giving an infection rate of 2·6 per cent, as compared with 7,750 last year, of which 529 were found infected with pulmonary tuberculosis, giving an infection rate of 6·8 per cent.

Thus, while the increase of the number of new patients was 184 per cent, the rate of positive tuberculous cases has considerably decreased.

The following is a short account of the use of Tuberculin :

Tuberculin (Bacillary Emulsion), has been systematically used in the chest diseases dispensaries. The method of diluting it, as designed by the Endemic Diseases Section, is both simple and economical and obviates the cost of expensive diluting apparatus. Details of this method were published in " Tubercle " of April 1932.

House Visits.

House visits to patients suffering from pulmonary tuberculosis amounted to 593 as compared to 312 last year, *i.e.* an increase of 90 per cent. The object of these visits is to ascertain that the advice given to patients at the dispensaries for preventing the transmission of the disease to contacts is carried out.

Table No. XXVII shows some details regarding these patients.

(3) Ankylostomiasis and Bilharziasis

Units.

It was deemed expedient to detach the two ankylostoma branches annexed to Mallawi and Bereem general hospitals and to convert them into travelling ankylostoma units (now designated by serial numbers 27 and 28).

At the request of Sharqîya Provincial Council, the Public Health Department took over the ankylostoma hospital erected by that Council at Zagazig town, and transferred to it the staff of the ankylostoma branch attached to Esna general hospital, which was abolished owing to the diminution of ankylostoma infection there.

Methods of Treatment

Carbon Tetrachloride.

The carbon tetrachloride used in the treatment of ankylostomiasis, which was previously examined by biological test was this year examined by chemical tests.

Introduction and Administration of New Drugs

(1) *Calcium Gluconate* (Sandoz) was distributed to the units of the Endemic Diseases Section during the year as an antidote to carbon tetrachloride poisoning in substitution of the calcium and glucose mentioned in the annual report of 1930, with most satisfactory results. All cases of poisoning with carbon tetrachloride treated by this new drug in accordance with the Section's instructions, recovered.

(2) *Pituitrin* (extract of the posterior lobe of the pituitary gland).—In execution of the proposal mentioned in the annual report of 1930, pituitrin has been distributed to the units of this section during the year 1931. As anticipated, the drug has proved to be an effective stimulant of the intestine in combination with rectal enemata where the action of the saline purgative, following the administration of carbon tetrachloride is delayed.

A New Method for the Detection of Intestinal Bilharziasis.

A sedementation method for the detection of intestinal bilharziasis was introduced in the Endemic Diseases Section during the year. The method is particularly efficient in detecting mild bilharzia infection, the percentage of positive results being 80 per cent higher than with the smear method. The method is based on the fact that the eggs of Bilharzia Mansoni readily sink by sedementation in a 0·7 per cent salt solution while the miracidia

TABLE No. XXVII.—RETURN OF PULMONARY TUBERCULOSIS TREATED IN CHEST DISEASES DISPENSARIES DURING THE YEAR 1931

Unit	Number of New Cases seeking Treatment	Number of new Patients suffering from Tuberculosis																														Old Cases									Result of Treatment			No. of contacts examined	No. of T. B. contacts
		Total	under 5 years		From 5–10 years		From 10–15 years		From 15–20 years		From 20–25 years		From 25–30 years		From 30–35 years		Over 35 years		Peasants	Merchants	Employees	Labourers	Students	No occupation	Diagnosis				Hæmoptysis	Cases under observation	Home visits	Total	Chest Diseases		T. B.		Diagnosis				Improved	Stationary	Worse		
																									Bact.		X Rays									Bact.		X Rays						
			M	F	M	F.	M	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.							Neg.	Pos.	Neg.	Pos.				M.	F.	M.	F.	Neg.	Pos.	Neg.	Pos.					
Saptieh	11,493	728	10	11	18	24	28	25	42	38	66	52	54	35	57	46	131	91	35	23	12	272	19	367	363	178	—	14	182	112	294	13,788	4,185	3,978	2,750	2,875	3,927	1,698	—	—	235	1,158	69	—	—
Mobtadaian	6,852	770	1	2	27	27	30	26	73	38	74	58	69	49	39	55	118	84	12	28	38	278	68	346	435	172	12	8	22	435	168	14,910	6,251	7,563	678	418	457	703	—	—	33	162	4	—	—
Mansoura	3,669	209	—	1	—	—	3	6	21	12	31	15	34	14	26	8	31	7	—	15	12	100	11	71	17	192	—	17	—	154	131	4,191	1,277	1,213	1,393	308	182	1,519	—	—	225	632	156	—	—
TOTAL ...	22,017	1,704	11	14	45	51	61	57	136	88	171	125	157	98	122	109	280	182	47	66	62	650	98	784	815	542	12	39	204	701	593	32,889	11,713	12,754	4,821	3,601	4,516	3,920	—	—	493	1,952	229	—	—

remain alive for many hours. An article on the subject was published in the " Transactions of the Royal Society of Tropical Medicine and Hygiene, Vol. XXV, No. 3," and the above method has been adopted in the General Hospitals of the Department.

The new patients treated at the Ankylostoma Units in 1931 amounted to 664,303 as compared with 748,082 treated last year, *i.e.* a decrease of 11 per cent. This decrease is possibly due to a diminution in the incidence of the disease in consequence of the work of the Department.

Surgical bilharziasis cases have also decreased to one eighth, and, vesical calculus and urinary fistula to one third of their numbers in previous years, for the same season.

The following are details relating to these patients :—

Number of new patients		664,303
,,	patients whose urine was examined for bilharzia	654,747
,,	those found positive for urinal bilharzia... ...	375,608
,,	patients whose faeces were examined for bilharzia	624,399
,,	those found positive for bilharzia mansoni ...	125,140
,,	those found positive for bilharzia haematobium	125,140
,,	patients whose faeces were examined for ankylostoma	624,399
,,	those found positive for ankylostoma	172,553
,,	those found positive for ascaris	316,159
,,	those found positive for other parasites... ...	66,749
,,	those found negative for all parasites	47,189

(4) Leprosy

New Units.—Two new leprosy clinics were opened during 1931 one in Tanta and the other in Minya.

Considering that lepers, not only in Egypt, but in all countries, tend to abstain from attending the outpatients clinics, the Department found it more useful to convert the existing stationary clinics into travelling clinics in the form of specially designed ambulance cars which were thus able to carry out the work of twelve clinics.

The building of the Hospital of the Leprosy Colony at Abou Za'bal has now been completed with the exception of the sanitary installation, and measures are being taken for the provision of a temporary water supply pending the completion of the scheme for the provision of a permanent water supply from the Isma'îliya Canal.

The in-patient section of the Cairo Leprosy Clinic was duly completed and equipped for receiving the patients and was therefore converted into a hospital.

Treatment of Patients.—The number of new patients who attended the Leprosy Clinics amounted this year to 1,472 as compared with 1,015 last year and 392 in the year 1929 ; *i.e.* an increase of 45 per cent over 1930.

Of the patients who attended this year, 588 were found suffering from leprosy.

Table No. XXVIII shows details relating to these patients.

(5) Eye Diseases

During the year 1931, an ophthalmic hospital was constructed at Matarîya (Daqahlîya), and two ophthalmic branches were created : one at Demerdâsh General Hospital, and the toher at Luxor District Hospital ; and thus the number of ophthalmic units reached 49, with an increase of three units than in 1930.

Table No. XXVIII.—Comparison Return showing Number of Lepers in 1931 and 1930

Year	Number of Patients.			General Remarks.									How Infection was conveyed.										Kind of Disease.			Age of Patients at Admittance.							Age on appearance of Disease.														
	New Patients.	Negative to Leprosy.	Positive to Leprosy.	Males.	Females.	Married.	Single.	Egyptian.	Foreigner.	Moslem.	Copt.	Other Religions.	Denies Infection.	Admits Infection.	Foreign Contact.	Family Contact.	Father Only.	Mother Only.	Parents.	Husband.	Wife.	Sons.	Brothers.	Relatives.	Skin.	Nerve.	Mixed.	1–10	11–20	21–30	31–40	41–50	51–60	From 61 and upwards.	1–5	6–10	11–15	16–20	21–25	26–30	31–35	36–40	41–45	46–50	51–55	56–60	From 61 and upwards.
1931	1,472	884	588	478	110	253	335	588	—	512	76	—	285	303	132	171	30	12	—	2	1	4	62	70	68	207	313	33	174	220	99	35	20	7	14	68	112	131	93	79	34	18	16	9	7	3	4
1930	1,015	582	433	376	57	207	226	433	—	400	33	—	158	275	127	148	34	11	1	—	—	8	35	78	38	184	211	21	118	169	75	32	13	5	12	48	96	90	90	38	20	6	3	4	1	4	

Ophthalmic Projects Decided.—It was decided to create ophthalmic branches in three District Hospitals, to enlarge the In-Patient Department of Beni-Suef Ophthalmic Hospital and the construction of an Ophthalmic Hospital at Samalût town at the expense of Minya Provincial Council.

Clinical Work.—The following table shows the clinical work done at the Ophthalmic Hospitals in 1931 :—

TABLE No. XXIX

	1930	1931	Ratio of increase in 1931
			Per cent
Number of new patients	526,406	634,088	20
Number of In-patients	20,136	22,188	10
Number of operations	209,662	220,823	5
Number of visits of patients to Outpatient Depts.	4,350,062	5,023,175	15

Blindness.—The percentage of blinds in one or both eyes among those who attended the ophthalmic hospitals is still gradually decreasing. This clearly illustrates the great benefit which the inhabitants derive from the Ophthalmic Hospitals. The percentage this year did not exceed 7·3 per cent while it was 8·4 per cent in 1930 and 1929 and 9·3 per cent in 1928. In comparing this percentage with that of the year 1911 (20 years ago), the very satisfactory progress realised since that year will become apparent. The definition of blindness adopted here is the inability to count fingers held up at a distance of one metre. The principal pathological cause of blindness is ophthalmia which forms 80 per cent of the total number. Gonococcus is still the predominant factor of infection with acute ophthalmias ; its percentage to the total of other microbes being 45 per cent.

School Clinics.—The ophthalmic examination, treatment and inspection of pupils were carried out at 32 Primary Government Schools. 11,178 pupils were examined, of whom 96 per cent were found suffering from Trachoma in its various stages, and about 43 per cent of these pupils were in the serious stages of the disease (Trachoma I and II). This percentage, as a result of ophthalmic treatment, dropped to 16 per cent.

The higher percentage found this year than that of previous years was attributed to examining trachoma follicles by magnifiers of Zeiss type. By the aid of this apparatus, the examining surgeon could see very fine trachoma follicles which could not be easily seen by the naked eye.

Pupils of other 30 Primary and Preliminary Schools belonging to the Provincial Councils where permanent or travelling hospitals exist, received treatment at Ophthalmic Hospitals.

The following table shows the trachoma cases amongst pupils at the beginning and end of the last three years:—

TABLE No. XXX

Year	Beginning of the year			End of the year	
	Pupils with any stage	Pupils with serious stages I & II		Pupils with serious stages of trachoma I & II	
	Number	Nnmber	Percentage	Number	Percentage
1929-1930	11,223	2,397	30·2	919	8·4
1930-1931	10,793	2,893	26·8	877	8·1
1931-1932	10,707	4,576	42·7	1,750	16·3

(6) Lunacy Division

A very important improvement in the treatment of mental diseases and minimising their evils, was realised in 1931, by dividing Khanka Hospital into two portions : the one for ordinary cases and the other for criminal lunatics, in order to safeguard the former against the anti-social habits and criminal propensities of the latter, and Egypt thus now possesses a separate Asylum for criminal lunatics, the advantages of which are too obvious to be commented on.

Four pavillions were completed at Khanka Asylum, each holding 60 beds, and they would have alleviated the overcrowding had it not been for the admission of 500 drug addicts.

Admissions.—2,225 patients were admitted at the two mental hospitals (of whom 497 were drug addicts) as compared with 1,696 in 1930 and 1,651 in 1929. The continuous increase of patients admitted year after year in addition to the drug addicts who are allowed admission for treatment, is a difficulty which requires serious consideration and has to be surmounted by all means. The Department is obliged to repeat, in this connection, what it had already mentioned in last year's report regarding the great necessity of establishing a Mental Hospital at Asyût, to alleviate the overcrowding in Cairo Asylums, and reduce the discharge, for lack of accommodation, of patients still insane, who are not only a danger to public security and order but will certainly be the focus of the production of defectives and crime.

Discharges.—1,633 cases were discharged (against 1,311 in 1930) of whom 490 had recovered, 80 were found to be sane, 1,062 were handed over to their relatives their places being required for more acute cases, and one escaped.

Number of beds.—This was 2,723 as compared with 2,623 in last year.

Drugs.—Insanity as caused by drugs, shows a decrease. The number of drug insanities admitted to both hospitals was only 52 as compared with 73 in 1930 and 141 in 1929. This diminution in their number is proved by the fact that the 492 persons who entered Khanka Asylum were only admitted for drug addiction. It is, however, regretted that the addiction is a failure whereas the cure of the effects of overindulgence in drugs is easy. The fact is that the motives which tempt a person to use drugs persist in him, except in the case of the extremely small class of accidental addiction. In fact, a person can only get rid of a habit of using narcotics by having recourse to education of self control which cannot be inculcated in a few months.

Table No. XXXI.—Admissions, Re-Admissions, Discharges and Deaths

	Khanka	Abbassiya			Grand Total
	Males	Males	Females	Total	
In hospitals on January 1, 1931...	1,247	756	1,034	1,790	3,037
Cases admitted :—					
First admission	628	223	394	627	1,255
Re-admission	258	70	142	212	470
Voluntary admission	495	5	—	5	500
Transfers*	504	365	—	365	869

* These exchange transfers were effected on completion of Khanka Criminal Asylum.

TABLE No. XXXI ADMISSIONS, RE-ADMISSIONS, DISCHARGES AND DEATHS (*contd.*)

	Khanka	Abbassiya			Grand Total
	Males	Males	Females	Total	
Cases discharged, dead or transferred :—					
Recovered					
Still insane	442	22	26	48	490
Not insane	644	131	287	418	1 062
Escaped	15	64	1	65	80
Died	1	—	—	—	1
Transferred*	198	29	175	204	402
Remaining in Hospitals on December 31,	365	504	—	504	869
1931	1,467	679	1,081	1,760	3,227
Average daily number resident...	1,424	681	1,058	1,739	3,163
Persons admitted	1,303	229	516	745	2,048
Maximum daily number resident...	1,571	780	1,096	1,876	3,447
Minimum daily number resident...	1,189	651	1,033	1,684	2,873
Accommodation	1,200	574	949	1,523	2,723

* These exchange transfers were effected on completion of Khanka Criminal Asylum.

Abbasîya Mental Hospital admits all female cases, all criminals for examination and report, and also all private cases. Khanka takes non-paying male patients.

The following table shows causes of insanity :—

TABLE XXXII.—CAUSES OF INSANITY, 1931

	Males.		Females.	Total.
	Khanka.	Abbasiya.		
Congenital defect resulting in idiocy, imbecility and week-mindedness ...	258	34	25	317
Hereditary defect resulting in :—				
(1) Primary dementia	294	79	140	513
(2) Epileptic insanity	32	8	18	58
(3) Mania depressive	18	35	180	233
Pellagra	1	2	50	53
Toxic Agencies :—				
(*a*) Endogenous :				
Syphilis	44	15	3	62
Fever	—	2	4	6
(*b*) Exogenous :				
Drug Insanity*...	29	20	3	52
Puerperium	—	—	19	19
Old age	56	5	24	85
Moral causes : grief, loss, etc.	7	7	18	32
Causes unknown	43	14	20	77
Impaired health	29	8	12	49
TOTAL	811	229	516	1,556

* Exclusive of 492 drug addicts not certified insane, they were voluntarily admitted.

CHAPTER VII

MEDICAL SECTION

Government General Hospitals

New Units.

The following new 20 units were opened this year:—

El Demerdash Pasha General Hospital, Abbassia.

13 District Hospitals at : Delingat, Shubrakhit, El Sembellawein, Zawyet el Naoura, Fareskour, Belbeis, Etsa, Tala, Samalout, Deirout, El Balyana, Qous, and El Mahalla el Kubra.

7 Village Hospitals at : Deweire, Daqalt, El Faroukiya, Beni Ebeid, Mit Salsil, Etfih, and El Borombol.

The handing over of the following medical institutes to the Department by the State Buildings Department has taken place during 1931 :—

Luxor New General Hospital.

Kafr el Dawar, Sherbîn, El Fashn and Deshna District Hospitals.

Kafr Daoud, El Kom el Tawil, Daraw, El Kurain, Siflaq, El Galaweih, Nakada, El Ballas, El Sibaiyeh and El Busailieh Village Hospitals.

The number of medical institutes opened till 1931 amounted to 93 classified as follows:

19 General Hospitals at chief towns of the Provinces (Mudiriyas) and Governorates namely :—

Qasr el Aini, Alexandria, Demerdash, Port-Said, Suez, Damietta, Damanhûr, Tanta, Mansûra, Zagazîg, Shebîn el Kom, Benha, Faiyûm, Beni-Suef, Minya, Asyût, Sûhag, Qena and Aswân.

37 General Hospitals at some chief towns of Districts and other large towns namely :—

Mît Ghamr, Qalyûb, Bereem, El Tayiba, Maghagha, El Fikriya, Mallawi, Tahta, Luxor, Esna, Kom Ombu, Manzala, Faqûs, Desûq, Beni-Mazar, Rosetta, Edfu, Ekhmîm, Ashmûn, El Badary, Sahel-Selim, Girga, El Saff, El Wasta, El Delengat, Etsa, Shubrakhît, Fareskûr, Simbillawein, Tala, Belbeis, Samalût, Daiyrût, El Balyana, Qûs, Zawyet el Naoura and El Mahalla el Kobra.

34 Village Hospitals at :—

Kafr Rabie, Denshewai, Balteem, Hamoul, Sahragt el Kubra, Kafr Shukr, Salhieh, Giziret Seoud, Edku, Wardan, Birkash, Adwa, Bartabat, Qousieh, Tatalieh, Tema, Deweir Armant, Dabieh, Demrû, Kafr el Atrash, Edfina, Daqalt, Farûkiya, Hosh Eisa, Abou el Matamir, Kurashieh, Mit Badr Halawa, Shentena el Hagar, Tafahna el Azab, Beni-Ebeid, Mit Salsil, Etfih, and El Borombil.

3 Outpatients clinics for general diseases at :—

El Fashn, Minshat Sabry, and El Dir (Floating boat Hospital).

The following is the disribution of the above units according to their categories in the last six years :—

Table No. XXXIII

Kind of Institutions.	Existing up to 1925	New Units Constructed						Converted or abolished	Total
		1926	1927	1928	1929	1930	1931		
General Hospitals in Capitals of Governorates and Mudirias...	18	—	—	—	—	—	1	—	19
General Hospitals at Markazes (Districts)	5	2	1	1	1	15	13	1*	37
Village Hospitals	—	—	—	—	5	22	7	—	34
Outpatients Policlinics	3	1	—	—	—	—	—	1†	3
Number of beds	3,043	190	99	224	141	575	703	47‡	4,928§

* Matariya District Hospital was converted into an Ophthalmic Hospital.

† Tala outpatients clinic was abolished as a result of the construction of a District Hospital at that town.

‡ 47 beds deducted from the total number of beds at the General Hospitals as a result of the conversion of Matariya Hospital into an Ophthalmic Unit, the collapse of Maghagha Hospital and its temporary conversion into an outpatient clinic.

§ The number of beds comprises 136 beds in Village Hospitals and excludes 204 beds in the Ophthalmic Branches of the General Hospitals.

Treatment.

The following table shows the number of patients treated at the Hospitals and those who attended at the Clinics during the three previous years:—

Table No. XXXIV

Number of patients	1929	1930	1931
In-patients treated in Hospitals	78,745	85,311	95,765
Outpatients „ „ „	908,318	1,148,178	1,649,526
„ „ attendances...	2,372,020	2,523,928	3,623,050
Patients treated at the outpatient travelling and village clinics...	52,517	163,125	376,391
Attendances to the outpatient travelling, and village clinics	103,199	335,495	783,501

TABLE XXXV.—STATISTICS *re* HOSPITAL PATIENTS, 1931

Hospital	Number of Beds								Number of In-patients						Number of Outpatients	
	Patients					Ophthalmic Branches	Officials and others	Total	Treated during 1931			Discharged during 1931			New Patients	Attendances
	1st Class	2nd Class	Special 3rd Class	Ordinary 3rd Class	Children				Males	Females	Total	Cured	Improved	Died		
Qasr-el-'Aini	—	—	—	884	44	—	188	1,116	16,496	7,519	24,015	—	21,582	1,689	235,343	699,690
Alexandria	1	8	—	375	25	33	32	474	6,970	3,410	10,380	4,816	4,491	710	132,229	407,468
Demerdash	3	12	—	69	—	16	35	135	619	452	1,071	770	214	11	24,012	53,745
Port Said	4	6	6	149	—	—	13	178	2,567	1,328	3,895	2,282	1,258	161	49,261	86,953
Suez...	5	9	—	110	2	25	9	160	1,724	898	2,622	1,827	579	86	21,484	39,614
Damietta	2	2	—	72	—	35	14	125	1,663	968	2,631	1,479	959	57	32,537	54,899
Damanhour	—	4	—	93	—	—	3	100	1,841	462	2,303	1,205	890	149	27,055	45,280
Bereem	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17,263	39,169
Tanta	1	2	—	170	—	—	4	177	4,704	1,502	6,206	2,662	3,080	258	54,273	98,221
Tayîba	—	—	—	32	—	8	1	41	856	247	1,103	805	258	10	30,766	54,900
Mansoura	1	7	—	146	—	—	3	157	2,269	1,211	3,480	2,091	1,031	202	60,583	92,339
Mit Ghamr	—	—	—	23	—	10	4	37	883	387	1,270	616	529	92	49,420	110,395
Zagazig	1	2	—	122	—	—	6	131	2,447	835	3,282	1,555	1,446	175	57,403	110,053
Shebin-el-Kôm ...	1	1	—	82	—	—	1	85	1,359	522	1,881	1,237	466	109	19,254	57,621
Benha	—	—	—	86	14	—	1	101	1,544	533	2,077	1,191	699	105	34,378	62,553
Qalioub	2	2	—	60	—	—	—	64	936	406	1,342	684	532	64	23,100	56,496
Fayoum	1	2	—	97	—	—	2	102	1,300	569	1,869	1,263	255	244	48,756	79,601
Beni-Suef	—	2	—	98	—	—	2	102	1,465	363	1,828	1,221	387	151	35,601	70,267
Maghagha	—	—	—	—	—	—	—	—	106	32	138	87	48	3	13,116	29,765
Minya	1	1	—	83	—	—	2	87	1,251	504	1,755	1,427	157	101	28,431	65,859
Fikriya	—	—	—	22	—	13	1	36	586	316	902	706	110	57	22,823	70,303
Mallawi	—	—	—	13	—	9	1	23	596	276	872	556	232	55	28,926	52,639
Assiout	—	14	—	164	7	—	4	189	2,858	1,168	4,026	2 806	821	255	42,238	60,726
Tahta	—	—	—	26	—	—	—	26	574	161	735	386	264	50	31,052	52,377
Souhâg	—	2	—	93	—	—	6	101	813	318	1,131	731	249	106	26,682	50.715
Qena	—	1	—	79	—	—	2	82	953	406	1,359	869	395	63	23,785	34,965
Luxor	6	6	—	63	—	—	13	88	421	150	571	272	223	28	13,584	28,533
Isna	—	—	—	51	—	24	8	83	809	464	1,273	734	466	28	15,188	30,958
Aswân	1	2	—	45	—	23	2	73	699	298	997	705	203	28	12,890	26,794
[illegible]								12	228	46	274	197	42	20	10,787	27,410

Beni-Mazar	—	—	—	32	—	—	3	35	516	105	621	395	172	29	13,941	23,163
Rosetta	—	—	—	32	—	—	3	35	481	98	579	338	207	20	25,234	59,870
Edfou	—	—	—	32	—	—	3	35	310	87	397	286	80	14	5,464	11,759
Akhmim	—	—	—	32	—	—	3	35	412	95	507	254	200	24	22,608	39,076
Ashmoun	—	—	—	32	—	—	3	35	372	189	561	379	131	32	39,361	71,256
Badârı	—	—	—	32	—	—	3	35	277	97	374	203	126	21	12,361	30,787
Sahel Selim	—	—	—	32	—	—	3	35	247	147	394	273	78	14	17,485	48,095
Girga	—	—	—	32	—	—	3	35	330	120	450	294	114	25	18,596	47,351
El Saff	—	—	—	32	—	—	3	35	270	158	428	200	193	17	19,840	53,335
El Wasta	—	—	—	32	—	—	3	35	366	192	558	423	57	30	20,506	57,114
El Delengat	—	—	—	32	—	—	3	35	252	68	320	208	75	12	15,221	34,333
Etsa...	—	—	—	32	—	—	3	35	138	56	194	108	53	7	8,924	16,360
Shibrakheet	—	—	—	32	—	—	3	35	251	63	314	217	76	4	15,628	28,031
Fareskour	—	—	—	32	—	—	3	35	230	122	352	269	61	3	14,319	29,371
Simbellawein	—	—	—	32	—	—	3	35	431	85	516	444	49	8	19,882	24,483
Tela	—	—	—	32	—	—	3	35	231	115	346	188	118	17	11,741	23,671
Belbeis	—	—	—	32	—	—	3	35	172	67	239	137	61	15	14,441	23,336
Samalout	—	—	—	32	—	—	3	35	105	42	147	73	47	11	6,313	15,712
Daïrout	—	—	—	32	—	—	3	35	123	53	176	84	56	15	16,081	27,841
Balyana	—	—	—	32	—	—	3	35	266	91	357	211	107	8	14,940	29,498
Qous	—	—	—	32	—	—	3	35	—	—	—	—	—	—	4,811	8,800
Zawyet el Naoura...	—	—	—	32	—	—	3	35	295	87	382	180	152	23	12,802	24,243
El Mahalla el Kubra	—	—	—	32	—	—	3	35	—	—	—	—	—	—	9,526	16,479
GRAND TOTAL ...	30	85	6	4,146	92	204	433	4,996	67,263	28,502	95,765	41,700	44,821	5,488	1,649,456	3,623,050

Expenditure

The total expenditure incurred during this year for the upkeep of the hospitals including Hod el Marsûd and Gabbary Lock Hospitals amounted to L.E. 326,336 and 866 milliemes.

The following table shows details of the expenditure, daily and yearly average expenses per patient in the last three years :—

Table No. XXXVI

	1929	1930	1931
Number of days of treatment	1,248,520	1,306,219	1,426,294
	L.E. M.	L.E. M.	L.E. M.
Total expenditure per year...	273,710 —	273,440 —	326,336 —
Expenses per patient per day	219	209	228
„ „ „ „ year...	79 935	76 285	83 220

The above mentioned sums are exclusive of the expenditure incurred for the new District Hospitals erected this year, being initial equipment expenditure. The daily as well as the yearly expenses per patient were higher than those of last year as a result of the fact that the hospitals opened this year were in need of additional expenditure for the completion of their equipment. Moreover, other old hospitals were furnished with up-to-date instruments, outfits and equipment. Specialists and other additional staff were also appointed in these hospitals service.

Operations and X-Ray Examinations

The following table shows the number of operations carried out during 1931 as compared with those of the two previous years in both in and outpatients hospitals departments :—

Table No. XXXVII

	1929	1930	1931
Number of operations carried out in in-patients departments	26,632	26,764	36,542
Number of operations carried out in outpatients departments	6,875	7,752	20,608
Total	33,507	34,516	57,150

The number of X-ray examinations performed in 1931 amounted to 25,150 as compared with 19,018 in last year, *i.e.* 32 per cent increase.

Deaths

The number of in-patients treated in general hospitals during the year 1931 amounted to 95,765 of whom 5,488 died, *i.e.* a rate of 5·7 per cent. The majority of the patients who died attended the hospitals either in agony or in a dangerous and hopeless condition and this is the reason why the above death-rate was high.

Clinics and Hospitals not belonging to the Department and First-Aid Societies

Table No. XXXVIII shows the number of these clinics and hospitals and their work during the year 1931.

TABLE No. XXXVIII

Locality	Private Medical Institutions							First-Aid Societies				Medical Societies	
	Number			Number of beds therein	Date of construction	Number of patients		Number of doctors	Situation	Number of cases	Number of operations	Budget	Egyptian	Mixed
	Private Hospitals	Dispensaries	Outpatients clinics			In-patients	Out-patients					L.E.		
Damietta ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Aswân ...	1	—	—	36	Feb. 1931 Dam Elevation Company	365	155 daily	2	Aswân (founded in December 1931)	—	—	—	—	—
Beni-Suef ...	—	—	—	—	—	—	—	—	Beni-Suef Bandar	3,682	—	1493·757 Inc. 854.206 Exp.	—	—
Faiyûm ...	—	—	—	—	—	—	—	—	Faiyûm Bandar...	5,809	—	1980 Inc. 1710 Exp.	—	—
Asyût ..	American	—	—	122	Year 1900	2,003	27,954	5	Asyût Bandar ...	9,573	—	2842.205 Inc. 2012.043 Exp.	—	—
	Egyptian	—	—	—	Year 1930	—	7,984	—		—	—		—	—
	—	—	—	—	—	—	62,095	1	Mallawi	4,928	—	—	—	—
	—	—	—	—	—	—	—	—	Manfalout	1,682	—	—	—	—
									Abou Tig (created in 1932) ...					
Girga	—	—	—	—	—	—	—	—	Suhâg	3,207	—	1800	—	—
									Girga	17				
									Tahta	79				
Sharqîya	—	—	—	—	—	—	—	—	Zagazîg	5,419	—	800.685 Exp. 698.529 Inc.	—	—
	—	—	—	—	—	—	—	—	Minia el Qamh	227	—	450.000 Inc. 402.600 Exp.	—	—
	—	—	—	—	—	—	—	—	Belbeis	188	—	420.— Inc. 405.670 Exp.	—	—
Port-Said	English —	— Childrens' (Municipality)	— —	70 —	Year 1875 Year 1911	403 —	— 47,384	2 1	— —	— —	— —	— —	— —	— —
Qalyûbîya	French at Ismailiya	—	—	—	—	—	—	—	—	—	—	—	—	—
	English at Shebin el Kanater	—	—	40	Year 1905	1,730	406	2	Benha	3,063	—	4277.753 Inc. 3904.— Exp.	—	—
Menoufiya ...	—	—	Ashmûn	—	Year 1907	—	1,250	1	Shebîn el Kom	3,590	—	900.—Inc.	—	—

			(Quesna—Municipality)												
	Menûf (American)...	—	—	50	Year 1914	660	2,400	2	—	—	—	—	—	—	—
Qena	—	—	—	—	—	—	—	—	Qena Bandar ...	3819	—	1387.348 Inc.		—	
												1380.468 Exp	—	—	
	—	Jesuites (Minia Bandar)	Fashn (Municipality)	—	Year 1895	200 daily	—	1	Minya Bandar ...	8187	—	—	Minya Bandar	—	
Minya ...															
	—	—	,,	—	Year 1925	7,440	—	1	—	—	—	—	—	—	
	—	—	National Clinic belonging to the First-Aid Soc.	—	Year 1927	12,707	—	—	—	...	—	—	—	—	
Suez	French (belonging to the French Government) ...	—	—	40	Year 1868	3,700	214	2	Suez	4210	—	—	—	—	
	Kafr el Sheikh Surgical Hosp. belonging to the Municipality	—	—	30	Year 1913	8,462	1588	2	—	—	—	—	—	—	
	Zifta	—	—	50	Year 1913	670	30,257	3	—	—	—	—	—	—	
	Samanoûd Badrawy's Wakf	—	—	63	Year 1922	475	24,928	2	—	—	—	—	—	—	
	—	—	Kafr-el-Zayat (Nofal's Wakf)	—	Year 1931	—	23,024	10	—	—	—	—	—	—	
	Fouah (Provincial Council)	—	—	30	Year 1927	Now under reparation.	—	2	—	—	—	—	—	—	
Gharbiya															
	Bandar Tanta (American) ...	—	—	100	Year 1904	1,300	800	3	Tanta Bandar ...	4190	—	—	—	—	
	Bandar Tanta (Minshawy's Wakf)	—	—	50	Year 1909	350	20,691	3	—	—	—	—	—	—	
	Bandar Tanta (Ministry of Wakfs)	—	—	—	—	—	41,333	2	—	—	—	—	—	—	
	Bandar Tanta (Dr. Michel Samaan	—	—	15	—	80	4,000	1	—	—	—	—	—	—	
	Bandar Tanta (Dr. Adib Meawad)	—	—	8	—	—	—	1	—	—	—	—	—	—	
	—	—	—	—	—	—	—	—	El Mahalla el Kobra	5,707	—	—	—	—	
	—	—	Muntazah Free Clinic	—	Open in Summer.	—	110,000	—	—	—	—	—	—	—	
Beheira	—	—	—	—	—	—	—	—	Damanhûr	6,329		1839.594 Inc.	—	—	
												3602.020 Exp			
	—	—	—	—	—	—	—	—	Rosetta	1,727	—	—	—	—	

CHAPTER VIII
PHARMACIES

Private Pharmacies

The Department has granted during the year 1931, seven permits for opening new private pharmacies, 6 of which belonged to local subjects and the seventh to a foreigner. Twenty pharmacies were closed : 5 in Cairo, 3 at Alexandria, and 12 in the provinces. The total number of the existing pharmacies amounted to 430 of which 329 are possessed to Egyptians and 101 to foreigners.

Pharmacies annexed to Public Health Offices

There were 87 small pharmacies, during 1930, attached to District Health Offices, for dispensing medicines to patients, in the localities deprived of private pharmacies, hospitals or clinics. Forty of these small pharmacies were dispensed with on account of the erection of the new District and Village Hospitals in some of the localities where the said small pharmacies were stationed. The remaining number of these pharmacies is now 47.

Night Service Pharmacies

These pharmacies exist in Cairo and they are now five in number and have dispensed 2,642 prescriptions at night during the year 1931 in addition to the specialities and patent medicines issued without prescriptions.

Medical Practitioners who prepare Drugs in their Clinics for their Private Patients

The number of medical practitioners notifying the Department that they prepare drugs for their private patients amounted to 16 : 4 in Cairo, 2 at Alexandria, one at Port-Said and the rest in the provinces distributed as follows :—

2 in Gharbiya, 3 in Menûfiya, one in Qena, one in Gîza, one in Qalyûbiya and one in Minya.

The number of such medical practitioners amounted to 258 : 35 in Cairo, 13 at Alexandria and the rest in the provinces.

Poisonous Drug Stores

The Department has granted 46 permits for dealing in medicinal poisonous drugs, 11 permits in stupefacients and 30 in poisonous substances used for industrial and agricultural purposes.

Simple Drug Stores

The Department has granted 33 permits for the opening of simple drug stores : 9 in Cairo, 4 at Alexandria, 18 in the provinces and 2 in the governorates.

Registration of the Egyptian Specialities

The Department has granted during the year 1931 : 131 permits for the preparation and sale of Egyptian specialities, and rejected the registration of 16 specialities.

Foreign Specialities

The number of foreign specialities for which official certificates of origin were submitted during 1931 for importation into Egypt amounted to 865.

Pharmacy Students

The number of pharmacy students graduated at Kasr el Aini Hospital, Cairo, who were authorized by the Department during the year 1931 to pass the statutory period of training in pharmacies, amounted to 10 and the number of those graduated at foreign Pharmacy Colleges and granted this authorization was 15.

Project of Egyptian Pharmaceutical Codex (Pharmacopoeia)

The Committee constituted for the drafting of this Codex is still in work.

The Opium International Convention

The Department in compliance with this convention, furnished the League of Nations in 1931 with the following statistics :—

(1) List of the stupefacients imported into Egypt and those exported therefrom every three months. The following table No. XXXIX shows the quantities of such stupefacients dealt with during the year 1931.

(2) List of stupefacients confiscated for illicit import or export shown in the following table No. XL.

(3) List of stupefacients purchased for the Government and those used for non-government purposes.

(4) List of stupefacients in stock at the wholesale stores at the end of 1931.

(5) List of the stupefacients expected to be imported during 1932.

Contraventions to Law

The number of cases of contravention brought by the Department before the Court amounted to 120 of which 38 for offenders dealing with simple drugs without authorization, 35 for trade in poisonous drugs without permits, 4 for dealing in adulterated drugs, 19 for practising pharmacy without authorization, 21 for pharmacists contravening the law, and 3 for trade in unregistered specialities.

Sentences of fine, closure or simple imprisonment were pronounced in 93 contraventions.

Sentences in 4 out of 5 delicts for contravening the law on the trade and use of stupefacient drugs (two against pharmacists and three against unqualified persons practising pharmacy) were pronounced.

Stupefacient drugs imported into Egypt and those exported therefrom during 1931 as compared to those of 1930 :—

Table No. XXXIX

Name of Drug	Quantities imported in 1930	Quantities imported in 1931	Quantities exported in 1931	Quantities exported in 1931
Opium and its preparations	57 kilos	52,622 grms.	260 grms.	2670 grms.
Morphine and its salts	7,899 grms.	6,857 ,,	35 ,,	43 ,,
Heroine and its salts	177 ,,	88 ,,	—	944 ,,
Eucodal	994 ,,	420 ,,	—	—
Cocaine and its salts	13,059 ,,	8,677 ,,	196 ,,	17 ,,
Cannabis Indica (tinct. and extract)	4,091 ,,	3,965 ,,	1,610 ,,	23 kilos

Stupefacient drugs confiscated for illicit import or export :—

Table No. XL

Name of Drug	Quantities confiscated
	Kilos.
Opium	10,166
Morphine	2
Heroine	66
Cocaine	2
Cannabis Indica	11,384

Quantities of stupefacients in stock at the wholesale stores at the end of 1931 :—

TABLE No. XLI

Name of Drug	Quanti y in stock
Raw opium	206 kilos.
Medicinal opium	26 „
Morphine	5,734 grms.
Heroine	824 „
Eucodal	180 „
Cocaine	6,092 „
Cannabis Indica (tinct. and extract)	9,413 „

Quantities of stupefacient drugs expected to be imported during 1932 :—

TABLE No. XLII

Name of Drug	Quantity
	Kilos.
Medicinal opium	95
Morphine	8
Cannabis Indica (tinct. and extract)	3
Cocaine	10
Eucodal	1

Quantities of stupefacient drugs consumed for non-government purposes :—

TABLE No. XLIII

Name of Drug	Quantities consumed
Opium and its preparations ...	41 kilos.
Heroine	810 grms.
Cannabis Indica (tinc. and extract)	6 kilos.
Morphine	4 „
Cocaine	7 „

LEGISLATION

Law No. 21, of 1928, regulating the trade and use of stupefacients

A Ministerial Arrêté has been issued on November 2, 1931 (inserted in the Official Journal No. 121 of December 14, 1931) stipulating the following amendments to the list of stupefacients shown in article 1 of the above-mentioned law :—

(1) Addition of the following stupefacients to the list above referred to :

Acedicone :

All salts of esters of morphine, di-hydro-oxycodeinone (Eucodal), di-hydrocodeinone (Dicodid), di-hydromorphinone (Dilaudid), also all their preparations except the solutions of cardiazol-dicodid containing 10 per cent at least of cardiazol and 5 per thousand at most of dicodid salt.

(2) Omiting of the following stupefacients and specialities from the above list :

Codéine, dionine, and other alcaloids of opium, their salts and derivatives, also the mixtures, compositions and preparations either official or non-official (including anti-opium drugs).

Novocaine, its derivatives and preparations.

Cocaine derivatives.

Coca leaves, fruits and powder.

(3) Amendment of proportion of the stupefacient drugs in the following preparations :

(*a*) The proportion of morphine in the preparation of raw and medical opium as shown in para. "A" Art. 1 of the said law has been modified to more than 2 per thousand instead of 2 per thousand and upwards.

(*b*) The proportion of morphine and heroine in the mixtures, compositions or preparations official and non-official (including the anti-opium drugs), shown in para. " 2 " of the above-mentioned article has been modified to " more than 2 per thousand of morphine " instead of " 2 per thousand and upwards " and to " any proportion of heroine " instead of " one per thousand and upwards."

(*c*) The cocaine proportion in the preparations shown in para. "4" of the said article has been also amended to more than one per thousand in place of one per thousand and upwards.

Project law regulating the Chemical and Bacteriological Laboratories

The project law is still under consideration and the Department will take the necessary formalities for its promulgation as soon as it is finally studied.

CHAPTER IX

MEDICAL PERMITS SECTION

The Medical Permits Section has enumerated, at the end of the year 1931, the number of those actually practising medical professions in Egypt.

The following table shows the number of practitioners of each profession as compared with that at the end of the previous year :—

TABLE No. XLIV

Professions	Number of Practitioners	
	at the end of 1930	at the end of 1931
Medical practitioners	2,502	2,684
Veterinary surgeons	158	182
Dentists	405	452
Pharmacists	697	719
Assistant pharmacists	348	351
Midwives	298	377

During 1931 the Department has authorized the following practitioners to practise their professions in Egypt :—

TABLE No. XLV

Profession	1930	1931	Increase
Medical practitioners	87	207	120
Veterinary surgeons	10	24	14
Dentists	18	47	29
Pharmacists	18	27	9
Assistant pharmacists	16	6	—
Midwives	10	70	60

The number of the persons authorized this year to practise the various medical professions, with the exception of the assistant pharmacists, shows remarkable increase as compared with the figures of last year. This increase cannot be attributed to a corresponding excess in the number of graduates of the medical colleges in 1931, but in reality there is a great number of those who were authorized during 1931, were graduated in previous years, and have delayed in applying for authorization to practise their professions, because they obtained their diplomas after the lapse of some time from their graduation.

The decrease in the number of the assistant pharmacists authorized this year is due to the application of the Decree-Law No. 14 of 1929, regulating the practice of pharmacy in Egypt, as it stipulates that no permits are to be issued for practising this profession in Egypt.

A.—The following table shows the nationalities of persons authorized to practise the medical professions during 1931.

TABLE No. XLVI

Profession	Egyptians	Greeks	British	French	Italians	Turks	Polish	TOTAL
Medical practitioners	189	8	4	3	3	—	—	207
Veterinary surgeons	23	—	1	—	—	—	—	24
Dentists	43	2	—	—	—	1	1	47
Pharmacists	26	—	—	—	—	1	—	27
Assistant pharmacists	5	—	1	—	—	—	—	6
Midwives	65	—	—	2	1	2	—	70

B.—The following table shows the origin of different diplomas whose holders were authorized to practise the medical professions during 1931:—

TABLE No. XLVII

Profession	Egypt	Great Britain	Great Lebanon	France	Greece	Switzerland	Austria	Germany	Italy	America	Turkey	Canada	Total
Medical Practitioners	137	18	17	11	7	5	4	4	3	1	—	—	207
Veterinary Surgeons	23	1	—	—	—	—	—	—	—	—	—	—	24
Dentists	32	—	8	3	1	1	—	1	—	—	—	1	47
Pharmacists	23	—	2	—	—	1	—	—	—	—	1	—	27
Assistant Pharmacists...	6	—	—	—	—	—	—	—	—	—	—	—	6
Midwives	64	1	2	1	—	—	—	—	1	—	1	—	70

During 1931 the following numbers of Medical Practitioners, Pharamacists and Dental Surgeons holding foreign diplomas sat for the State Examination for the purpose of obtaining permits to practise their profession in Egypt after success.

The following table shows the details of the result of the State Examinations held during the said year :—

TABLE No. XLVIII

Kind of Examination	Number of those who sat for the Examination in 1931	Egyptians		Foreigners		Total	
		Succeeded	Failed	Succeeded	Failed	Succeeded	Failed
Medicine	74	38	15	15	6	53	21
Pharmacy	14	4	4	1	5	5	9
Dentistry	37	6	13	7	11	13	24

The following table shows the percentages of success in the State Examinations held during the years 1929, 1930 and 1931 for the said professions :—

TABLE No. XLIX

Kind of Examination	1929	1930	1931
	%	%	%
Medicine	70	76	71
Pharmacy	—	58	35
Dentistry	31	33	35

During 1931 the following numbers of permits were issued to Dayas and Barbers :—

Dayas (Green Permits) 212

Barbers 2

Eight certificates of nursing were issued to the female nurses who completed their training in the Kasr-el-Ainy Hospital, Cairo.

CHAPTER X

THE CENTRAL MEDICAL COMMISSION

During the year 1931, the Central Medical Commission issued 12,970 medical certificates, a decrease of 1,511 as compared with the figures for the year 1930.

This decrease is attributed to the Government financial economy regarding the non-appointment of new candidates in the Government service and to the small number of candidates sent abroad for educational missions.

Out of the total number of 12,970, 4,738 were for sick leave examination of which 3,408 were for cadré and temporary officials and 1,330 for hors cadre employees.

The number of patients who were found suffering from medical diseases and obtained sick leaves, either by the Central Medical Commission or by the Cairo District Medical Officers, and approved of by the Central Medical Commission, amounted to 1,326 cadré and temporary officials and 353 hors cadre employees.

The patients suffering from surgical and ophthalmic diseases were 948 cadré and temporary officials, and 349 hors cadre employees.

The percentage of the most prevalent diseases was as follows :—

Table No. L

Disease	Number of Cases of Cadré and temporary	Percentage for Cadré and Temporary	Number of Cases of Hors Cadre	Percentage for Hors Cadre
		%		%
Bronchi and Lungs	204	9	40	5·7
Stomach and Intestines	162	7·1	75	10·6
Anæmia and General Debility	152	6·7	34	4·8
Rheumatism	163	7·2	42	5·9
Various Fevers	106	4·7	51	7·2
Eyes	169	7·6	35	4·9
Different Surgical Operations	386	17	175	24·8
Urethral diseases including calculi ...	96	4·2	19	2·7
Fractures	65	2·8	77	10·9

The number of sick officials and employees who were granted sick leave from one to 10 days by Cairo Quarter Medical Officers and by District and Outpost Medical Officers in all the Mudiriyas and Governorates during the year 1931 was 25,101 of which 18,937 or 75·4 per cent suffering from medical diseases and 4,405 or 17·5 per cent from surgical diseases and 1,759 or 7 per cent from ophthalmic diseases.

It must be noted that more than half of these officials presented themselves more than once for getting sick leaves.

The number of applicants examined for admission to the Government service and for educational missions abroad was 4,939, of which 3,130 were cadré and temporary officials, 93 candidates for missions abroad and the remaining 1,716 were hors cadre employees.

The percentage of cadré and temporary officials rejected in the three sessions was 37·5 in proportion to the number examined for admission into the service, *i.e.* the percentage of the successful was 62·5.

Out of the number of cadré and temporary officials, 27.4 per cent failed in vision. The cause in most cases for this failure was myopia. The percentage of those rejected or found unfit for service on account of urethral diseases was 1·7. The main reason of failure in most cases was due to albumen or traces thereof.

The number of patients who were examined more than once before the Central Medical Commission and granted sick leave was 102.

The number of patients who were examined before the Central Medical Commission and were not granted sick leave was 126.

The number of patients who were examined before the Mudiriya and Governorate Medical Commissions and were not granted sick leave was 164.

The number of patients in Cairo whose sick leave from one to 10 days was either granted or approved by the Central Medical Commission was 745.

The number of patients who were granted sick leave from 11 to 30 days and upwards by the Central Medical Commission and by Cairo Quarter Medical Officers was 1,529.

The number of patients who were granted sick leave exceeding the above-mentioned periods till their placement on pension by the Central Medical Commission was 60 only.

Provincial and Governorates Medical Commissions

14,477 medical certificates were issued by the Provisional and Governorate Medical Commissions during 1931, with a decrease of 4,116 as compared with those of 1930.

Nizami Gaffirs

The number of Nizami Gaffirs who were examined by the Medical Officers of Districts on admission to service or for extension of their voluntary period of service was 13,461, of which 35·1 per cent were found unfit.

Amendments of the Medical Commission Regulations of 1929

The following amendments have been introduced into the Medical Commission Regulations of 1929 :—

(1) Amendment No. 10 regarding the cancellation of paragraph 4, chapter 10 of the said Regulations which directs that the Medical Commission will be asked to draw a detailed report on the state of health of the official who fails to pass the ordinary medical examination, and whose appointment should be approved by the Council of Ministers.

(2) Amendment No. 11 to paragraph 12, chapter 10 of the Regulations relative to allowing the hors cadre employees to use glasses over six dioptres in case of their state of health is over the average, their fundus is normal and that the continual use of the glasses does not affect the standard of their vision, unless the Department to which the applicant belongs finds that his technical post necessitates a sound and strong sight.

(3) Amendment No. 12 to paragraph 1, article III, chapter 7 of the Regulations regarding the submission to the Director, Health Inspection Section at the Department, of all the medical certificates issued by the Medical Officers of the Frontier Districts for granting sick leaves from 11 to 30 days in lieu of their submission to the Director, Frontier Medical Section, as the latter Section has been attached to the said Health Inspection Section.

(4) Amendment No. 13 to sub-para. 4, article 3, chapter 7 of the Regulations authorizing the Medical Officers of Borollos, Saff, Derr Districts and all Districts in the circumscription of Frontiers Department to determine the ages of the hors cadre employees residing in these localities.

On the analysis of the statistics of the permanent and temporary officials who were examined during 1931, as regards the diseases contracted by them, the progress of these diseases and their distribution on the months of the year, and the checking as well of similar figures embodied in other chapters of the Report, the following has been found :—

(1) Diseases take their ordinary progress in a percentage varying between 1·1 per cent and 1·3 per cent up to the month of May when they reach their maximum increase in August and September, *i.e.* about 2 per cent. They then decrease gradually till the month of December ; the increase in the said period is attributed to : fevers, medical, urinary and mental diseases.

(2) Statistics of the patients of the various Ministries and Government Departments, who were medically examined, exclusive of those belonging to Departments provided with special Medical Commissions, such as the Egyptian State Railways, Ministry of Education, Prisons Department and Ministry of Wakfs, show that the injuries and diseases are comparatively frequent among officials of the State Buildings Department, Survey Department and the Ministry of Interior. This is attributed to their being exposed to mechanical dangers, climatic changes and frequent transfers in the achievement of their duties.

(3) It has appeared from the comparison between the different kinds of Government officials that there are more fractures, surgical and medical diseases in the hors cadre employees than in the permanent officials. This is attributed to the hors cadre employees being exposed to all kinds of injuries, to their low standard of living and to the endemic diseases frequently prevailing among them.

Other Statistics

The number of cadré and temporary officials in Cairo, suffering from tuberculosis was 39 and in the Provinces and in the Governorates 17, a percentage to the total number of patients of 1·7 in Cairo (amounting to 2,274) and 0·5 per cent in the provinces and Governorates (amounting to 2,996) respectively. Those who were improved and returned to duty were 12 and 3, and who were not improved and placed on pension were 3 and 2 respectively.

Typhoid Fever.

The number of patients was 19 in Cairo and 18 in the Governorates and Provinces giving a percentage of 0·8 and 0·6 to the total number of patients in Cairo and in the Governorates and Provinces respectively. The number improved was 11 and 7 respectively.

CHAPTER XI

SANITARY LEGISLATION

This subject has been fully dealt with in the introduction of this Report (*see* page 10).

Appendix I

Missions

This subject has also been mentioned in detail in the introduction (*see* page 8).

Appendix II

Central Stores Section

During 1931, this Section has furnished the following units with up-to-date equipment and modern steel furniture :—

5 District Hospitals.
4 Village Hospitals.
1 Mehalla.el Kobra Hospital:
1 Antirabic Institute and Hospital.
1 Leprosy Colony.
1 Fever Hospital at Beni-Suef.
1 Bacteriological Laboratory at Minya.
3 New Sections at Alexandria, Zagazig and Kasr el Aini Hospitals.
1 New Luxor Hospital.

In addition to the equipment of the above units, the maintenance and supply of the existing large number of units has greatly increased the work of the Central Stores.

The following work has also been carried out :

(1) Changing all furniture made of ordinary wood into other furniture made of the more durable Swedish wood.

(2) Changing all wooden furniture in hospitals into steel or iron furniture, the latter being more durable and therefore more economical ; it is also easier to clean.

(3) Cancelling articles of little use and obtaining others of the most modern kind instead.

(4) Replacing old pattern samples of articles rarely manufactured at present with new and easily obtainable ones.

(5) Replacing foreign yarn with local manufacture whenever possible.

An illustrated catalogue showing the patterns and details of specifications of instruments and wooden furniture is being prepared.

(6) To simplify the work and economise time and labour, the Ministry of Finance has approved of deleting Form No. 111 used for requisitioning articles from Stores and Form No. 113 used for issue of articles, and using instead a new Form No. P.H./10 (Stores) for both the demand and issue of any article. The result was a great saving in time and avoidance of any error that might have occurred through using the former two forms.

The following statistical table shows the details of Stores work during 1931 :—

TABLE No. LI

Work	1930	1931	Increase	Percentage
				%
Receipt Vouchers	17,870	15,608	—	—
Issue Vouchers	58,350	63,408	5,058	8
Outward Correspondence	82,834	91,422	8,588	10
Inward Correspondence	108,774	118,639	9,865	9
Postal Parcels received	4,765	2,800	—	—
Railway Consignments	16,200	41,524	25,324	156
Postal Parcels despatched	22,316	19,375	—	—
Claims	1,781	1,456	—	—
Workshops labour (repairs)	107,715	116,079	8,365	7
,, ,, (new works)	5,198	2,741	—	—
,, ,, (discs)	515,584	579,400	63,186	12

The following are the new 36 units established in the period from January 1, 1931, up to the end of December 1931 :—

13 District Hospitals at Delengat, Etsa, Shoubrakhit, Faraskour, Sinbellawein, Tala, Belbeis, Samalout, Deirout-el-Mahatta, Baliana, Qûs, Zawiet el Na'oura, Mehalla el Kubra.

1 General Hospital (Demerdash Hospital).

7 Village Hospitals at Tema, Dakalt, Farûkiya, Beni-Ebeid, Mit Salseel, Etfeih, Borombol.

1 Fever Hospital at Shebin el Kom.

2 Leprosy Clinics at Tanta and Minya.

2 Branch Ankylostoma Clinics at Mallawi and Barrim were converted into Ankylostoma Hospitals Nos. 27 and 28.

2 Ophthalmic Branches at Demerdash and Luxor Hospitals.

2 Child Welfare Centres at Menûf and Mansûra.

1 Dayas School at Menûf.

1 Bacteriological Laboratory at Mansûra.

1 Pathological Laboratary at Alexandria Hospital.

1 New Antirabic Institute and Hospital.

1 Fever Hospital at Zagazig (the hospital was handed over to the Department but no patients were yet admitted owing to the difficulty of supplying it with water supply and electric current).

1 An Ophthalmic Hospital at Matariya was converted into District Hospital.

During this year, a part of the premises of the Stores at Abbassiya has been completed, and the permanent and consumable equipment, "kohna," and stationery articles together with the Ledger and Inventory Offices were removed to the new premises. This has resulted in the saving of nearly L.E. 1,400 which the Department used to pay for the annual rent of the several premises used for storage and scattered in different parts of Cairo ; besides, it became practicable to store all similar articles in the same building, making for a great saving in time and labour by collecting such articles from the widely scattered stores. On completion of the building at Abbassiya, the remaining branches of the Central Stores (*i.e.* the Workshops, Surgical Instruments and Drug Stores) will be transferred to it and the whole Stores Section will be housed in one place.

Owing to the variation from time to time of the Customs duties on certain articles, the Department has recently encountered some difficulties in judging the prices of the different articles offered by the merchants in their tenders, owing to the difference in the estimation of such duties by the merchants. This was also the source of a lot of claims submitted to the Dept. by the merchants in order to recover the balance of some custom dues, previously estimated on a wrong basis.

To overcome this difficulty, the Department has recently approached the Customs Department and has laid a special item for Customs dues in front of each article in the tender forms so as to make the merchants fully aware of such dues and to enable them to submit their offers on a correct basis.

The following table shows the contracts and orders made in 1931 as compared with 1930 :—

TABLE No. LII

	1930	1931	Increase
General adjudications	72	110	38
Competetive local offers	816	655	—
Contracts	695	746	51
Local orders	1,716	1,294	
Foreign orders	510	139	
Form No. 50, *C.G.*	5,049	5,087	26
Questions submitted to Contracts Board ...	743	752	9
Meetings of Contracts Board	No statistics.	184	—
Tenders put to general adjudications	858	1,052	194
Agreements	12	13	1
Miscellaneous orders...	No statistics.	217	—

Appendix III

NEW UNITS ESTABLISHED IN 1931.

TABLE No. LIII

Units.	No.	Cost of Estab.
		L.E.
Minia Bacteriological Laboratory	1	1,340
Fever Hospitals	2	5,332
District Hospitals	6	35,706
Village Hospitals	4	6,508
Ophthalmic Branch, Luxor Hospital	1	1,378
Lepers Colony	1	12,775
Ankylostoma Branch, Suez Hospital	1	671
TOTAL	16*	63,710

* These units were created on 1931—1932 Budget credits.

Appendix IV

TABLE NO. LIV.—DETAILS OF BUDGET GRANTS AND ACTUAL EXPENDITURE

	Budget Grants		Actual Expenditure	
	1930	1931	1930	1931
	L.E.	L.E.	L.E.	L.E.
TITLE I				
SALARIES, WAGES AND ALLOWANCES	705,900	721,771	645,189	684,636
Deduct :—				
Recoveries for services rendered	4,353	3,993	4,376	3,665
	701,547	717,778	640,813	680,971
TITLE II				
GENERAL EXPENSES	669,704	608,039	580,390	581,292
Deduct :—				
Anticipated underspending ...	26,354	—	—	—
	643,350	608,039	580,390	581,292
Deduct :—				
Recoveries for services rendered	1,258	1,258	901	988
	642,092	606,781	579,489	580,304
TITLE III.				
NEW WORKS	315,050	84,400	132,967	82,145
GENERAL TOTAL.				
TITLE I	701,547	717,778	640,813	680,971
TITLE II	642,092	606,781	579,489	580,304
TITLE III	315,050	84,400	132,967	82,145
	1,658,689	1,408,959	1,353,269	1,343,420

Appendix V

TABLE NO. LV.—DETAILS OF POSTS IN THE VARIOUS SECTIONS OF THE DEPARTMENT OF PUBLIC HEALTH

	Central Administration		Health Divisions		Medical Divisions		Lunacy Divisions		Total.	
	1930	1931	1930	1931	1930	1931	1930	1931	1930	1931
Administrative Posts ...	14	17	2	1	1	—	5	5	22	23
Technical Posts :—										
Permanent	63	68	417	446	739	746	29	32	1,248	1,292
Temporary	—	2	14	17	57	57	2	2	73	78
Clerical Posts	197	208	353	355	261	237	19	21	830	821
Hors Cadre Posts	201	222	1,044	1,102	3,274	3,533	655	754	5,174	5,611
TOTAL	475	517	1,830	1,921	4,332	4,573	710	814	7,347	7,825

Appendix VI

Report of Cairo Health Inspectorate for the Year 1931

The following is the statistical Report of Caro Health Inspectorate for 1931 :—

(*A*) Vital Statistics.

Population.—The estimated mid-year population in 1931 was 1,160,700. The District distribution is shown in Table VI.

Births.—The total number of births which occurred in Cairo during 1931 was 51,625. The annual birth-rate was, therefore, 44·5 per thousand of population as compared with 44·4 in 1930 and 43·9 in 1929. *See* Table VI for district births and rates.

Still-births.—The total number of children born dead during 1931 was 1,254 which gives a rate of 24·3 still-births per thousand births.

Deaths.—During 1931 the total number of deaths which occurred in Cairo was 34,517. Out of this total 924 were deaths of non-residents, leaving 33,593 for Cairo proper.

This gives an annual death-rate of 28·9 per thousand of population as compared with 25·8 in 1930 and 26·6 in 1929. *See* Table VI for district deaths and death rates. Also *see* Chart 1.

Infantile Mortality.—The total number of deaths of children under one year of age which occurred in Cairo during 1931 was 11,156 which gives an infantile mortality of 216 per thousand births as compared with 200 in 1930 and 211 in 1929.

In addition there were 17 deaths of infants coming from outside Cairo who died in various institutions.

Chart 2 shows the mean infantile death-rates per week.

Causes of Infantile Mortality.—As usual the most important diseases were diarrhoea and enteritis. They are responsible this year for 5,863 deaths or 52·5 per hundred infantile deaths.

Chest diseases come next with 1,822 or 16·3 per hundred deaths. Marasmus and general debility caused 712 deaths or 6·4 per cent.

The number of deaths from infectious diseases was 204 or 1·8 per cent. Chart 3 shows the weekly deaths of children from enteritis with the average weekly temperature.

Table LVI.—Vital Statistics of Cairo for 1931 (rates per thousand)

District.	Mid-year estimated Population	Births		Deaths		Infantile Deaths	
		Cases	Rate	Cases	Rate	Cases	Rate
Mouski	27,000	958	35·5	658	24·4	170	177
Bab el Sha'riya	83,100	3,580	43·1	2,226	26·8	735	205
Ezbekiya	61,700	1,871	30·3	1,258	20·4	357	191
'Abdin	80,400	2,374	29·5	1,686	21·0	466	196
Sayeda Zeinab	115,800	5,411	46·7	3,225	27·8	1,215	224
Helwân	51,500	2,150	41·7	1,479	28·7	532	247
Khalifa	73,700	3,424	46·5	2,445	33·2	796	232
Darb el Ahmar	86,000	3,519	40·9	2,448	28·5	751	213
Gamaliya	79,300	3,671	46·3	2,523	31·8	804	219
Shoubra	161,100	8,798	54·6	4,946	30·7	1,725	196
Boulaq	133,300	6,725	50·4	4,727	35·5	1,657	246
Old Cairo	47,600	2,723	57·2	1,693	35·6	669	246
Waili	160,200	6,421	40·1	4,279	26·7	1,269	198
Cairo City **1931**	1,160,700	51,625	44·5	33,593	28·9	11,156	216
,, ,, **1930**			44·4		25·8		200
,, ,, **1929**			43·9		26·6		211
,, ,, **1928**			41·7		32·4		253
,, ,, **1927**			53·0		33·3		221
,, ,, **1926**			51·6		34·4		220
,, ,, **1921–1925**			51·2		34·3		233
,, ,, **1916–1920**			42·0		40·2		276
,, ,, **1911–1915**			43·8		39·0		304

Death Inquiries.—The total number of uncertified deaths during 1931 which required investigation was 17,382 or 51·8 per cent of the total of Cairo deaths.

The District Medical Officers investigated 77·8 per cent of the uncertified deaths. The District Mowallidas investigated 17·3 per cent. The remaining deaths were in the villages attached to Cairo where sanitary barbers and dayas gave burial permits.

Infectious Diseases.—The total number of infectious diseases notified during 1931 was 10,630 which includes 840 cases coming from outside Cairo. The total for Cairo proper was 9,790 as compared with 8,578 in 1930 and 7,914 in 1929.

Table VII shows the incidence and deaths of the most prevalent infectious diseases in Cairo Districts during 1931.

Disinfection Service.—The total number of rooms disinfected in 1931 was 51,520 out of which 29,039 were done by the Abbassiya Disinfection Station and 22,481 by the Fum el Khalig Station.

Typhoid Fever.—The total number of cases notified during 1931 was 1,304 as against 1,248 in 1930 and 1,220 in 1929.

The case-rate was, therefore, 112 per 100,000 of population.

The cases were distributed as follows : 1,091 Egyptians and 213 foreigners.

The number of deaths from this disease was 331 of which 113 were diagnosed after death.

The death-rate was, therefore, 28·5 per hundred thousand of population.

The highest case-rate occurred in Waili being 181 per hundred thousand of population Shoubra comes next with 127 per hundred thousand.

Cases occurred in every disrict.

Fig 1. shows the case and death-rates in the various districts.

Diphtheria.—The total number of cases recorded during 1931 was 829 as compared with 771 in 1930 and 802 in 1929.

TABLE No. LVII.—DISTRICT DISTRIBUTION OF CASES AND DEATHS OF THE MOST PREVALENT INFECTIOUS DISEASES IN 1931

District.	Typhoid		Diphtheria		Measles		Cerebro-Spinal Fever	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Mouski	31	8	18	7	21	10	17	11
Bab el Sha'riya...	86	27	58	16	56	18	41	24
Ezbekiya	54	13	39	14	34	19	19	15
'Abdin...	90	17	68	16	64	8	31	15
Sayeda Zeinab	129	30	155	43	185	85	41	17
Helwân	33	5	35	8	43	3	8	5
Khalifa	88	23	55	19	78	29	38	18
Darb el Ahmar	58	16	55	16	69	37	32	19
Gamaliya	64	8	23	6	23	3	47	16
Shoubra	205	36	97	32	208	116	56	27
Boulâq	131	82	47	20	133	71	36	16
Old Cairo	43	9	42	10	. 70	53	10	6
Waili	292	57	137	31	138	23	98	45
TOTAL—CAIRO CITY...	1,304	331	829	238	1,122	475	474	234

There were 238 deaths from this disease, 76 of which were diagnosed after death.

The case and death-rates were 71 and 20·5 per hundred thousand of population respectively.

The highest case-rate occurred in Sayeda Zeinab, being 130 per hundred thousand of population. *See* Fig. 2.

Measles.—The total number of cases during this year was 1,122 as compared with 462 in 1930 and 794 in 1929.

There were 475 deaths of which 389 were diagnosed after death. The case-rate was 96 and the death-rate 41 per hundred thousand of population. *See* Fig. 3.

Cerebro-Spinal Fever.—The total number of cases recorded during 1931 was 474 which is by far the largest total for the last 19 years.

There were 234 deaths, 37 of which were diagnosed after death.

The case-rate and death-rate was 41 and 20 respectively per hundred thousand of population.

The disease was scattered over all the districts.

The cases were distributed as follows : 425 Egyptians and 48 foreigners. *See* Fig. 4.

Scarlet Fever.—There were 67 cases notified during 1931 ; of these 22 occurred in Waili and 12 in Abdin. There were 3 deaths.

Influenza.—The total number of cases recorded this year was 2,152 as compared with 1,900 in 1930 and 1,509 in 1929.

The case-rate of this disease was 185 per hundred thousand of population as compared with 169 in 1930 and 136 in 1929.

The number of deaths was 78.

The number of deaths from all respiratory diseases, excluding pulmonary tuberculosis, was 4,860 out of which 3,445 were due to pneumonia, 36 to pleurisy, 1,283 to bronchitis and 96 to other respiratory diseases.

Of the 3,445 deaths from pneumonia, 2,554 were children up to 5 years, 289 from 5 to 15, 207 from 15 to 35 and 395 from 35 and over.

As regards smallpox, typhus and relapsing fever, no cases were recorded during 1931.

Deaths attributed to Confinement.—These include deaths from puerperal fever and other deaths from confinement.

The total number was 68 of which 40 were due to puerperal fever, 51 cases of puerperal fever were notified in 1931.

Haemorrhage was responsible for 7 deaths and eclampsia for 3 deaths.

The death-rate due to child bearing was, therefore, 1 per thousand births whilst the death-rate from puerperal fever was 0·8 per thousand births.

(*B*) Government Fever Hospital, Abbassiya

During the year 1931 there were 5,917 admissions to the Government Fever Hospital as compared with 4,611 in 1930 and 3,831 in 1929. Of these 3,459 were males and 2,458 females.

The numbers admitted each month were : 342 in January, 306 in February, 562 in March, 627 in April, 676 in May, 560 in June, 560 in July, 582 in August, 454 in September, 426 in October, 418 in November and 204 in December.

The admission consisted of : 19 plague (from Gîza), 106 chicken-pox, 34 scarlet fever, 615 typhoid, 168 para-typhoid, 1 typhus (from outside Cairo), 481 cerebro-spinal fever, 422 diphtheria, 23 whooping cough, 70 mumps, 1,109 influenza, 394 erysipelas, 42 malaria, 20 tetanus, 118 dysentery, 138 measles, 42 tuberculosis, 10 puerperal fever, 1 mediterranean fever, 1 para-mediterranean fever.

418 persons were sent to Hospital under a mistaken diagnosis of infectious diseases and 367 sent in under observation in whom no disease of any sort manifested itself.

Of the 5,917 admissions, 240 were first class, 595 second class and the remainder third class.

There were 707 deaths in Hospital during 1931. Of these were 5 caused by plague, 147 by typhoid, 13 by para-typhoid, 102 by diphtheria, 1 by typhus, 15 by tetanus, 255 by cerebro-spinal fever, 2 by whooping cough, 21 by measles, 2 by influenza, 41 by erysipelas, 6 by dysentery, 11 by tuberculosis, 4 by puerperal fever, 1 by mediterranean fever and 80 from non-infectious diseases.

Of the 5,082 third class patients there were 296 convict patients from Cairo Prison. Of these 28 were suffering from typhoid, 19 from erysipelas, 5 from malaria, 134 from influenza, 13 from cerebro-spinal fever. The rest were not diseased.

There were 15 deaths among the convicts : 1 from typhoid, 1 from para-typhoid and 6 from cerebro-spinal fever. The remainder died from non-infectious diseases.

(C) Passenger and Pilgrim Control Services

(1) *Passenger Service.*

During 1931 there were 27,302 passengers who arrived in Cairo from infected countries as compared with 35,951 in 1930 and 30,499 in 1929.

Out of this total, 45·8 per cent travelled *via* Qantara, 27·9 per cent *via* Alexandria, 16·8 per cent *via* Port-Said, 5·9 per cent *via* Suez and 3·6 per cent by way of airships.

All these passengers with the exception of 11, who could not be traced, were observed during the regulation period.

(2) *Pilgrim Service.*

The total number of pilgrims from Cairo during 1931 was 905 as compared with 1,324 in 1930 and 1,101 in 1929.

Out of the 905 pilgrims, 869 returned and were subjected to the usual period of observation.

32 pilgrims from last year's pilgrimage also returned, 9 of which were found sick from various diseases such as diarrhoea 2, dysentery 3, para-typhoid 2, senility 1, and heart trouble 1. 4 deaths occurred.

Out of the 34 who did not return, 3 died during the pilgrimage.

(D) Sanitary Control of Public Women

The total number of prostitutes on the registers during 1931 was 1,033 of whom 773 were Egyptians and 260 foreigners. 214 names were struck off during the year of whom 138 were Egyptians.

The number of new names was 281 of which 233 were Egyptians and 58 foreigners.

The total number of examinations carried out during the year was 22,794 for Egyptians and 8,129 for foreigners.

Of the prostitutes 241 Egyptians and 104 foreigners were found suffering from venereal diseases.

The diseases diagnosed during the year are shown in Table VIII.

Unregistered Women.—The total number of women unregistered and examined at the request of the Police was 1,601 of whom 1,600 were Egyptians and 1 foreigner.

Of the 1,600 Egyptian women, 199 were found suffering from syphilis, 52 primary, 2 secondary and 3 tertiary, 414 from gonorrhoea (16 acute) and 34 from chancroids.

The single foreigner was suffering from secondary syphilis and chronic gonorrhoea.

Wasserman.—48 specimens of blood for the Wasserman test were sent to the Government Laboratories ; 48 were found positive.

Table No. LVIII.—Shows the Venereal Diseases discovered among Prostitutes during 1931.

	Natives	Europeans	Total
Syphilis :			
Primary	25	1	26
Secondary	15	6	21
Tertiary	—	—	—
Total	40	7	47
Gonorrhoea :			
Acute	2	32	34
Chronic	238	103	341
Total	240	135	375
Chancroid	56	13	69
Total	336	155	491

Work done at the Office of the Principal Medical Officer, Cairo City Police, during the Year 1931

The following describes in brief the amount of work performed during the year :—

Number of Policemen examined for sick leave	3,322
Other members of the Police examined for sick leave	580
Number of those applying for various professions	3,947
Number of Medico-legal examinations including those of Helwan, Heliopolis and Zeitoun	21,921
Number of subordinate staff examined for minor posts	113

Hygiene Work.

Number of inspections of Police Units	728
Number of those vaccinated against small-pox	470
Number of those inoculated against typhoid (2 injections)	1,269

General Sanitation

(*a*) *Milk.*—The total number of milk samples collected during the year was 4,683 as compared with 1,822 in 1930. Of these 556 were found adulterated making a percentage of 11·8 of the total number of samples collected as against 19·3 in 1930.

This is the lowest rate as compared with those of the last 10 years.

(*b*) *Cemeteries.*—The approval of the Inspectorate was given regarding the creation of a cemetery for the Moslemeen of Maadi at the site selected by the Prisons Department.

(*c*) *Free Water Taps.*—A free water tap has been installed at each of the following localities :

Ezbet Abou Hashish, Abbassiya Qism; Ezbet Antar, Old Cairo Qism; Qalet elKabsh, Sayeda Qism; Haret Kom el Saayda, Darb el Ahmar Qism.

(*d*) *Gullies.*—3 slop gullies were installed at the request of the Inspectorate at the following places :—

Ezbet el Mebayed, Zeitoun; Eshash el Saquia, Sayeda Qism; Sharia Gharb el Qoshlaq, Abbassiya Qism.

The under-mentioned two slop water gullies were repaired at the request of the Inspectorate.

(*e*) *Mosques.*—One water system of a mosque was found faulty, and as its owner did not execute the repairs required, closure was carried out by the order of the Department. Three water systems were connected with the main sewers during the year and three others have been opened for use.

During 1931 the number of mosques connected with the main sewers was 14. Applications received for connection with the public sewers during the year were 20 in number.

(*f*) *Complaints.*—The number of those received and dealt with regarding questions of general sanitation were 1,116. Out of these 450 were connected with mosquitoes, 388 *re* rats, 140 *re* street gullies and 138 *re* fencing of lands.

The rat-catching gangs attached to this Inspectorate caught 9,514 rats during 1931 as compared with 7,852 during the previous year.

(*g*) *Anti-Malarial Measures.*—The number of mulahezeen who were working in the general campaign against mosquitoes in Cairo was 46 in addition to other four working as overseers to superintend the work of the gangs.

The number of labourers was 150. In November 1931 the distribution of the gangs was re-arranged. This was done owing to the fact that many houses were connected to main drains.

The work of mosquito control was extended north to a point near to Ein Shams Station. By the creation of this new section all Cairo is at present being controlled by the Anti-malaria gangs, except the villages to the South of Old Cairo.

By the application of para. 2, Article 4 of the Law No. 1 of 1926, the owners of many houses, 704 in number, have put the water installations of their houses in a proper sanitary condition.

About 500 judgments are now in the Inspectorate under enforcement. The judgments were served on the owners of the houses and new delays are usually given in which to carry out the measures served in the notices.

The work of these gangs has markedly reduced the mosquito pest in Cairo, and has also greatly assisted the Vidange Section of the Inspectorate as all overflowing cesspits are immediately reported upon by the anti-mosquito mulahzeen. Other nuisances are also required by them.

Method of Collection of Milk Samples

The method of collection of milk samples which was followed since 1916 was re-arranged by the Inspectorate Circular No. 65 of October 22, 1930, in accordance with C.A. order number 2095 dated 1st September 1930.

The new method was followed since January 1931.

The samples are now taken by the Qism M.O.s assisted by the Moaweneen at any hour of the day (in the morning or evening) from milk shops or vendors once, twice or more per week. It seems that the vendors are now feeling the continuous control over them.

The result of examinations by the Public Health Laboratories of samples of ice and aerated water was very satisfactory showing an improvement even on last year.

Unhealthy, Inconvenient and Dangerous Establishments

Under the Law No. 13 of August 28, 1904, and the Arrêté of the Ministry of Interior dated 29th August of the same year, the following establishments were licensed after compliance with the sanitary conditions:—

Table No. LIX

Class	Saha	Zabt	Total
I.	179	18	197
II.	1,817	13	1,830
III.	517	1	518
Total.	2,513	32	2,545

Licensed establishments (Saha) already existing in the City and its suburbs up til, December 31, 1931, were 1,841 Class I; 11,645 Class II; and 2,849 Class III. Total 16,341.

Of those visited during 1931, 11,599 were found satisfactory and 4,742 unsatisfactory, thus giving a percentage of 71·6 per cent satisfactory and 28·4 per cent unsatisfactory.

The number of visits paid to already licensed establishments during the year 1931 was 28,878.

The following table shows the number of visits paid by the different Qism Health Offices :—

TABLE No. LX

Qism	Number of Visits
Ezbekîya	1,675
Bab el Sha'rîya	1,428
Gamalîya	3,807
Darb el Ahmar	2,195
'Abdin	1,087
Sayeda Awal	1,163
Sayeda Tani	767
Muski	1,437
Bulaq Awal	1,429
Bulaq Tani	2,074
Shubra Awal	1,921
Shubra Tani	2,995
Abbasîya	2,236
Khalifa	1,392
Zeitun	698
Heliopolis	1,060
Old Cairo	939
Helwan	575
TOTAL	28,878

The procedure followed in dealing with licensed establishments which were in an unsatisfactory sanitary condition was as follows :—

Notices were served on the licence holders that the faults must be remedied within a certain time.

In the case where the measures required were already inscribed on the rukhsas and where the time given elapsed without these measures having been carried out, procès-verbaux of contravention were drawn up.

In the case where the conditions were not inscribed on the rukhsas, Ministerial Arrêtés were promulgated against defaulters.

Under the above procedure the number of procès-verbaux of contravention drawn up during the year for lacking conditions as well as for establishments exploited without licence was 2,357 and the number of Ministerial Arrêtés issued was 74.

ETABLISSEMENTS PUBLIQUES.

Under the Law No. 1 of January 9, 1904, 8 theatres, 31 cinematographs and 10 establishments of other kinds were inspected during the year 1931.

Of these, by the end of 1931, 38 already existing and 11 newly licensed, the latter being 9 cinemas, and 2 establishments of other kinds.

The sanitary conditions were found satisfactory in 2 theatres, 21 cinemas and 8 establishments of other kinds and not satisfactory in 6 theatres, 10 cinemas and 2 establishments of other kinds.

Careful attention has been paid during the year for improving the sanitary condition of these public establishments specially as to their sanitary installations.

MEDICAL STAFF AND ENGINEER.

During 1931, the staff of the Etablissements Insalubres Section has been increased by the welcome addition of a sanitary engineer. As a result of this arrangement the finally approved plans are much more accurate, and there is less delay in the issuing of licences.

Careful attention has been paid to the improvement of the sanitary condition of establishments in general and especially food stuffs establishments, such as ice-cream factories, milk establishments, mineral water factories, bakeries, paste and alimentary paste establishments, syrup manufactories and sale shops, etc., by enforcing efficient and strict conditions therein.

Appendix VII

Summary of Alexandria Municipality Report for 1931 on its Health Services

Births.—The number of births registered in Alexandria during 1931 was 26,909, or 42·7 per thousand of population, as compared with 25,674 in 1930, or 41·9 per thousand of population (still-births excluded).

It may be observed that the birth-rate which dropped from 44·1 per thousand of population in 1929 to 41·9 in 1930 has slightly improved in 1931.

Deaths.—The number of deaths has greatly increased this year. This is due particularly to the exceptionally high infantile mortality rate as compared to that of 1930, which was 23·6 per thousand of population, the lowest rate recorded.

The number of deaths recorded during 1931 was 17,616 (still births excluded) as against 14,470 in 1930 ; the increase is therefore 3,146, and the death-rates for the two years are 23·6 and 27·9 per thousand of population respectively. The figures for 1931 show then a slight increase in birth-rate accompanied, unfortunately, by a great increase in death-rate.

Still-Births.—The number of still-births in 1931 was 459, as against 399 in 1930. This is an almost negligible number.

Infantile Mortality.—The number of infantile mortality during 1931 was 6,033, as compared with 5,090 in 1930. The increase is therefore 943 ; and the death rates for the two years are 225 and 198 per thousand of births respectively.

Combat of Epidemics and Infectious Diseases.—The most remarkable feature during the year was the spread of measles in an intense form, and the epidemic prevalence of cerbro-spinal fever, which led the Department of Public Health to take urgent action to stop the prevalence of these two diseases. The Board of Health, in which the Municipality is represented, held a meeting to consider the matter and certain resolutions were adopted.

The country, thanks to the strenuous efforts and stringent measures of the Department, finally got rid of the cerebro-spinal epidemic, despite its wide-spread prevalence.

The following table shows the incidence, deaths and cases-deaths rates of infectious diseases at Alexandria in the last years :—

Table No. LXI

Disease	1931			1930		
	Cases	Deaths	C-D rate	Cases	Deaths	C-D rate
Total number of Infectious Diseases	5,567 *	1,376	24·7	4,969	914	18·39
Plague...	46	17	36·9	108	58	53·7
Typhus exanthematicus ...	4	2	50·	7	2	28·57
Malaria	68	2	2·9	46	2	4·35
Typhoid and paratyphoid ...	589	92	15·6	684	114	16·6
Scarlet fever	40	1	2·5	35	—	—
Cerebro-spinal fever	99	55	55·5	18	9	50
Acute poliomyelitis	2	—	—	9	2	22·2
Diphtheria	402	113	28·1	448	114	25·44
Measles	983	487	49·5	44	2	4·76
Whooping cough	260	11	4·02	126	6	4·54
Mumps	248	2	0·8	187	1	0·53
Leprosy	20	4	20	26	1	3·8
Erysipelas	167	17	10·1	93	20	21·5
Tetanus	39	20	51·3	50	31	62
Pulmonary tuberculosis	852	426	50·0	887	409	46·0
Chicken-pox	374	3	0·8	329	2	0·6
Influenza	818	17	2·8	1,417	28	1·26
Puerperal fever	46	19	41·3	48	29	60·4
Dysentery	510	88	17·2	407	84	20·6

* Of which 110 cases come from outside Alexandria.

N.B.—No cases occurred of other infectious diseases, *i.e.* cholera, small-pox, encephalitis lethargica, acute polio-encephalitis, undulant fever, yellow fever, relapsing fever, rabies and dengue.

Disenfection and Rat-Catching.—The number of premises and dwellings which were disinfected during the year amounted to 15,978 as against 14,955 in 1930. 10,104 rats were caught during 1931, as compared with 9,208 in 1930.

Child Welfare.—The number of children which were attended to by "Queen Nazli Child Welfare Centre" and "Ismail Midwifery Home" amounted to 1,900. These two institutions treated, moreover, 50,056 during the year, as against 25,726 in the previous year, *i.e.* an increase of 94·5 per cent.

Clinics belonging to Alexandria Municipality.—The following table shows the number of patients treated at the clinics belonging to Alexandria Municipality during 1930 and 1931 :—

TABLE No. LXII

Clinic	New Cases		Old Cases		Operations	
	1930	1931	1930	1931	1930	1931
Teeth Diseases	11,316	12,875	7,212	6,570	399	720
Ear, Nose and Throat Diseases	9,780	12,073	11,204	12,823	863	1,208
Ophthalmic	11,934	13,884	—	—	1,024	1,318

TABLE No. LXIII

Clinics	Medical Diseases	Surgical	Skin	Epidemic	Operations	TOTAL
Khedive Ismail	49,032	16,369	32,3 9	151	1,464	99,325
Queen Nazli	21,538	—	—	—	131	21,669
Hadara Qism...	3,148	1,575	—	—	—	4,723
Ramleh „	5,266	4,754	918	183	—	11,121
TOTAL FOR 1931... ...	78,984	22,698	33,227	334	1,595	136,838
TOTAL FOR 1930... ...	5 ,0.5	28,165	13,969	656	1,058	95,873

Venereal Diseases and Examination of Prostitutes.—The number of registered prostitutes was 972 during the year as compared with 1,130 in 1930. The total number of examinations carried out during the year amounted to 24,481, and the following cases of venereal diseases were found :—

Disease	1931	1930
Syphilis	280	15
Gonorrhoea	569	907
Chancroid	20	130
Syphilis and Gonorrhoea ...	112	27
Gonorrhoea accompanied by other diseases	—	15

558 specimens were taken for bacteriological examination, of which 420 were found positive, and 138 negative.

The following two tables show the number of patients suffering from venereal diseases treated at the two special clinics belonging to the Municipality and the nature of their diseases :—

TABLE NO. LXIV.—PATIENTS TREATED IN THE TWO VENEREAL DISEASES CLINICS OF ALEXANDRIA MUNICIPALITY

NEW CASES				OLD CASES				TOTAL NUMBER OF CASES				GRAND TOTAL
Egyptians		Foreigners		Egyptians		Foreigners		Egyptians		Foreigners		
Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	
2,531	1,323	221	53	2,595	2,023	64	49	5,126	3,246	285	102	8,759

TAPLE NO. LXV.—DISEASES OF PATIENTS TREATED IN THE TWO VENEREAL DISEASES CLINICS OF ALEXANDRIA MUNICIPALITY

Syphilis	Gonorrhoea	Chancroid	Syphilis and Gonorrhoea	Gonorrhoea and other diseases	Pending Examination	Unvenereal Diseases	TOTAL
3,508	2,898	712	2	112	620	907	8,759

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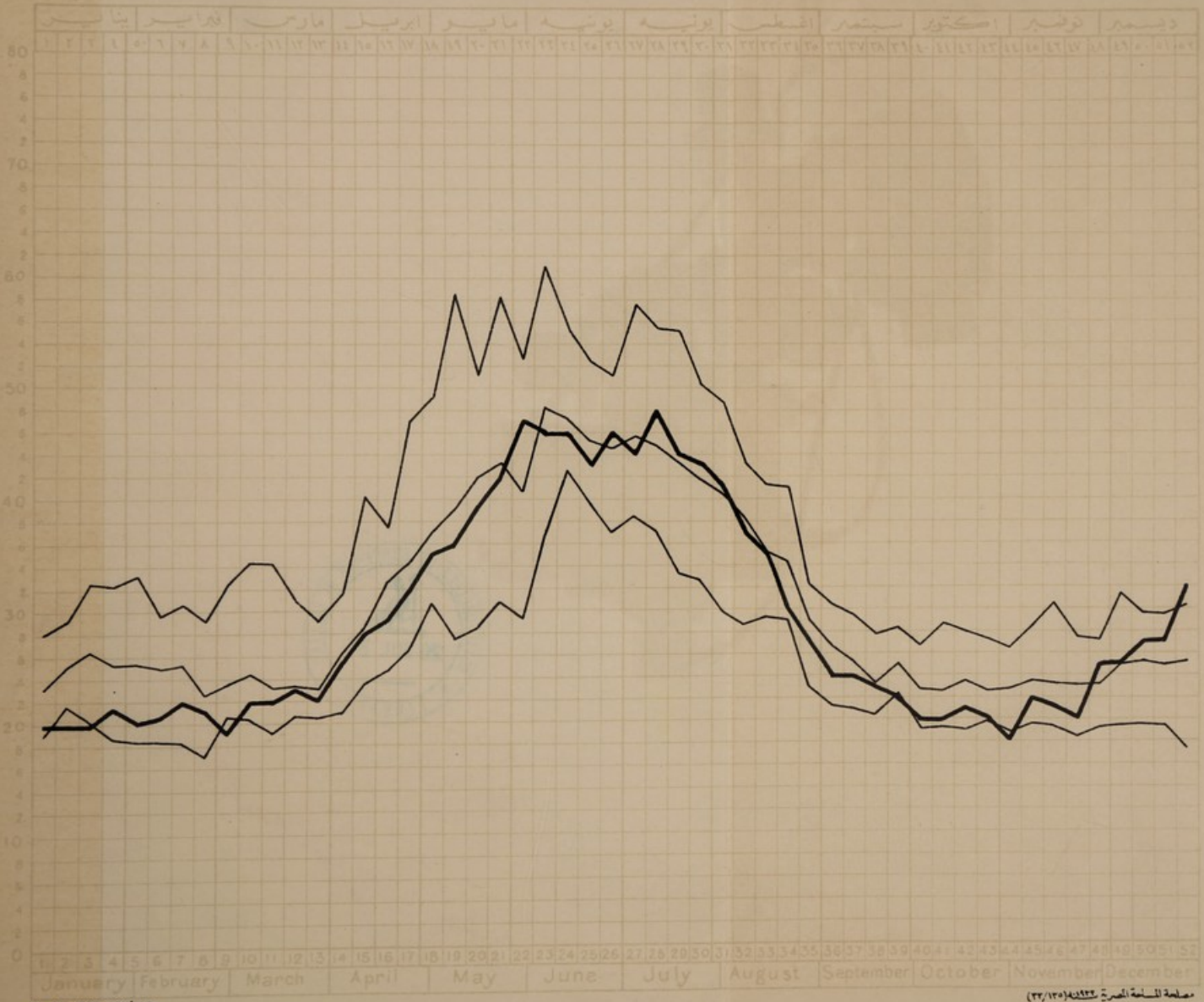
الرسم رقم ١
Chart 1

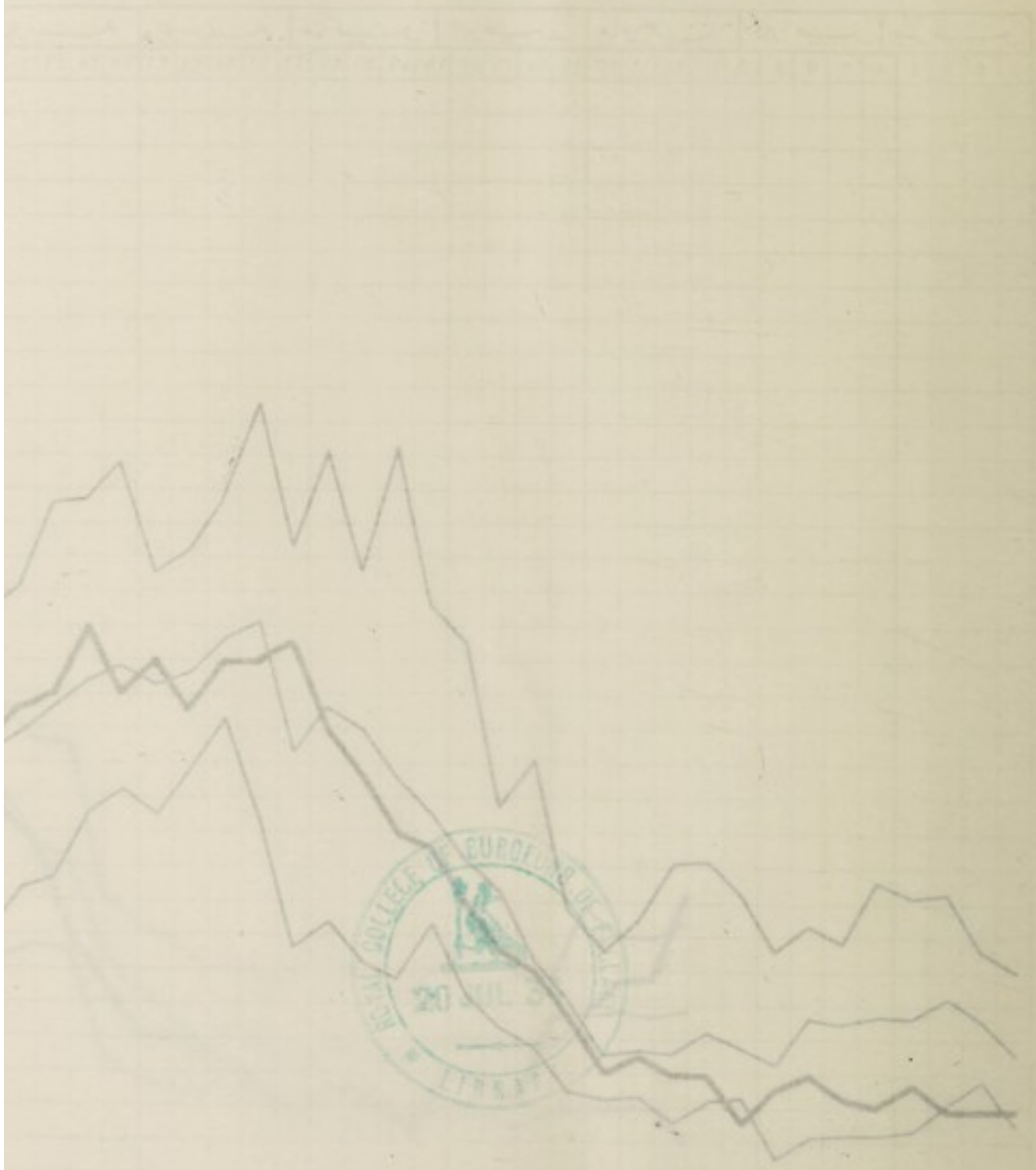
نسب الوفيات الأسبوعية لكل الف من السكان فى الخمس السنوات من سنة ١٩٢٦ الى سنة ١٩٣٠
Weekly Death-rates per 1000 living in quinquennial period 1926-1930



S. of E. 1933 (33/135)
مصلحة المساحة المصرية ١٩٣٣/٨ (٣٣/١٣٥)

نسبة الوفيات الأسبوعية فى سنة ١٩٣١
Weekly death-rates in 1931

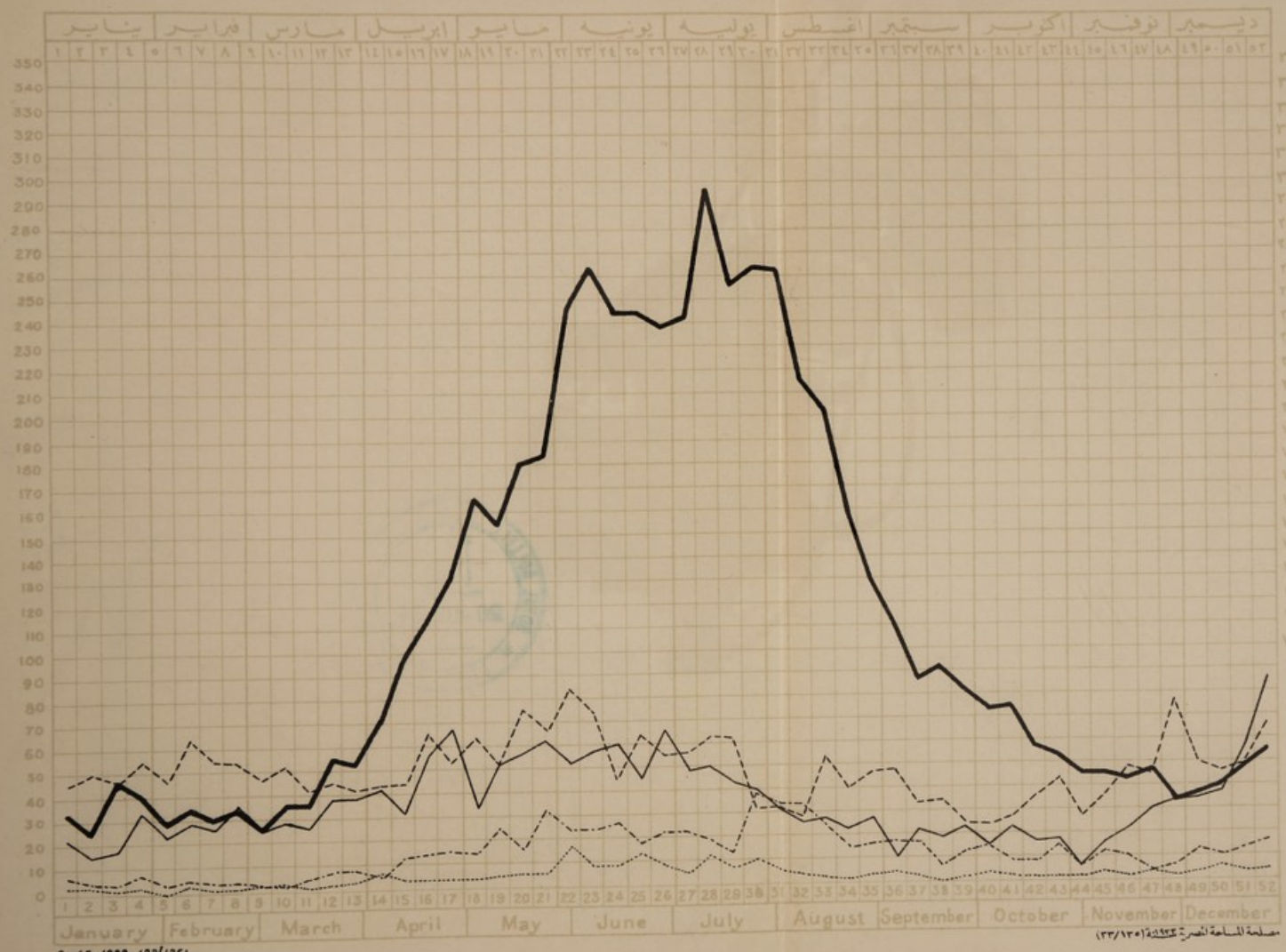
أقصى وأدنى ومتوسط النسبة
Max., Min. & Mean rates.



الرسم رقم ٢
Chart 2

وفيات الأطفال الاسبوعية للذين لا يزيدون عن السنة الأولى من عمرهم التي حدثت بالقاهرة سنة ١٩٣١

Weekly Infantile Mortality (Children 0-1 Year) 1931 Cairo



مصلحة الصحة المصرية ١٩٣٣ (٣٣/١٣٥)

S. of E. 1933 (33/135)

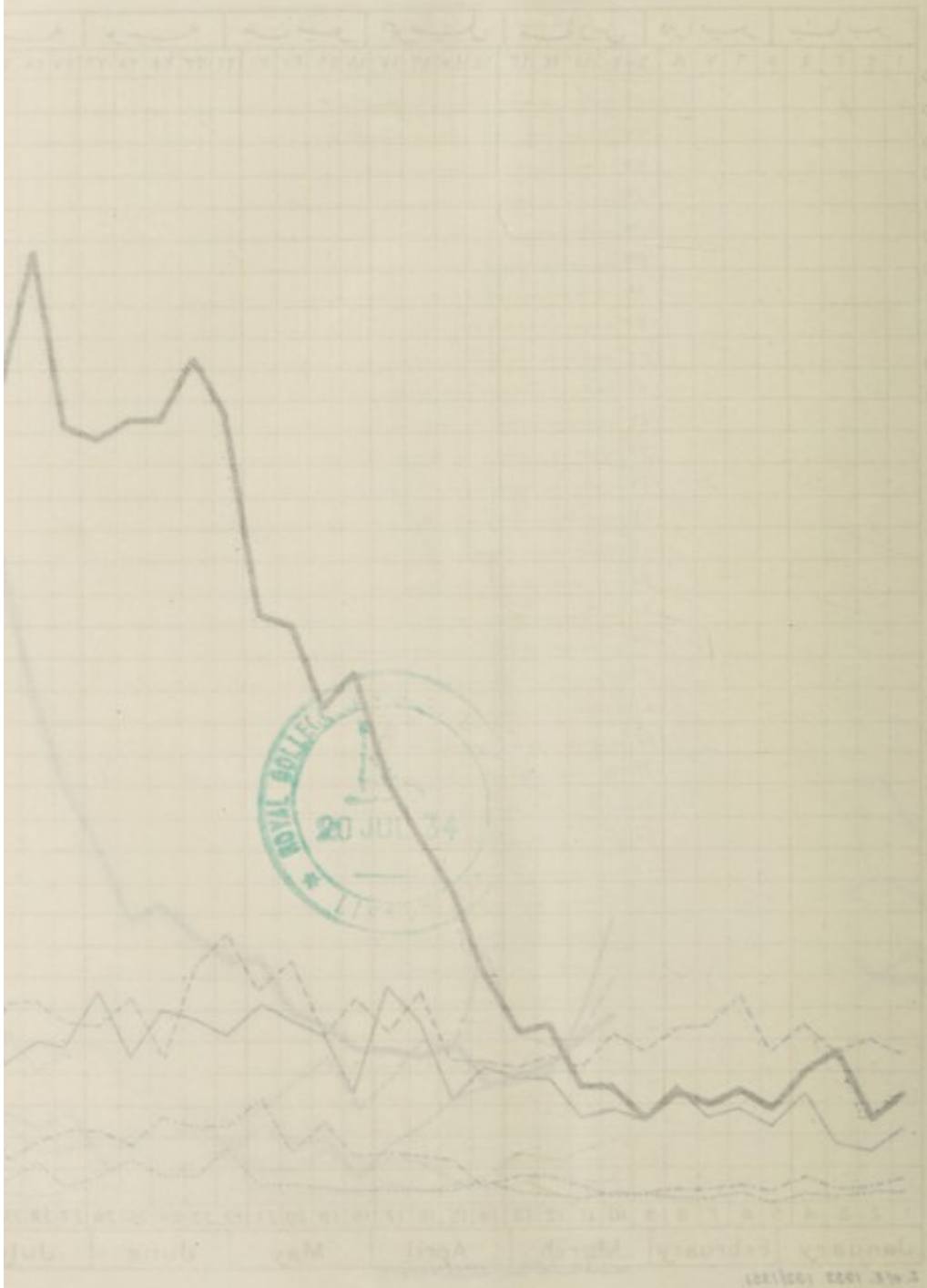
Infectious Diseases. ..... الأمراض المعدية

Other Diseases. - - - - - أمراض اخرى

Marasmus -.-.-.- ضعف أو هزال

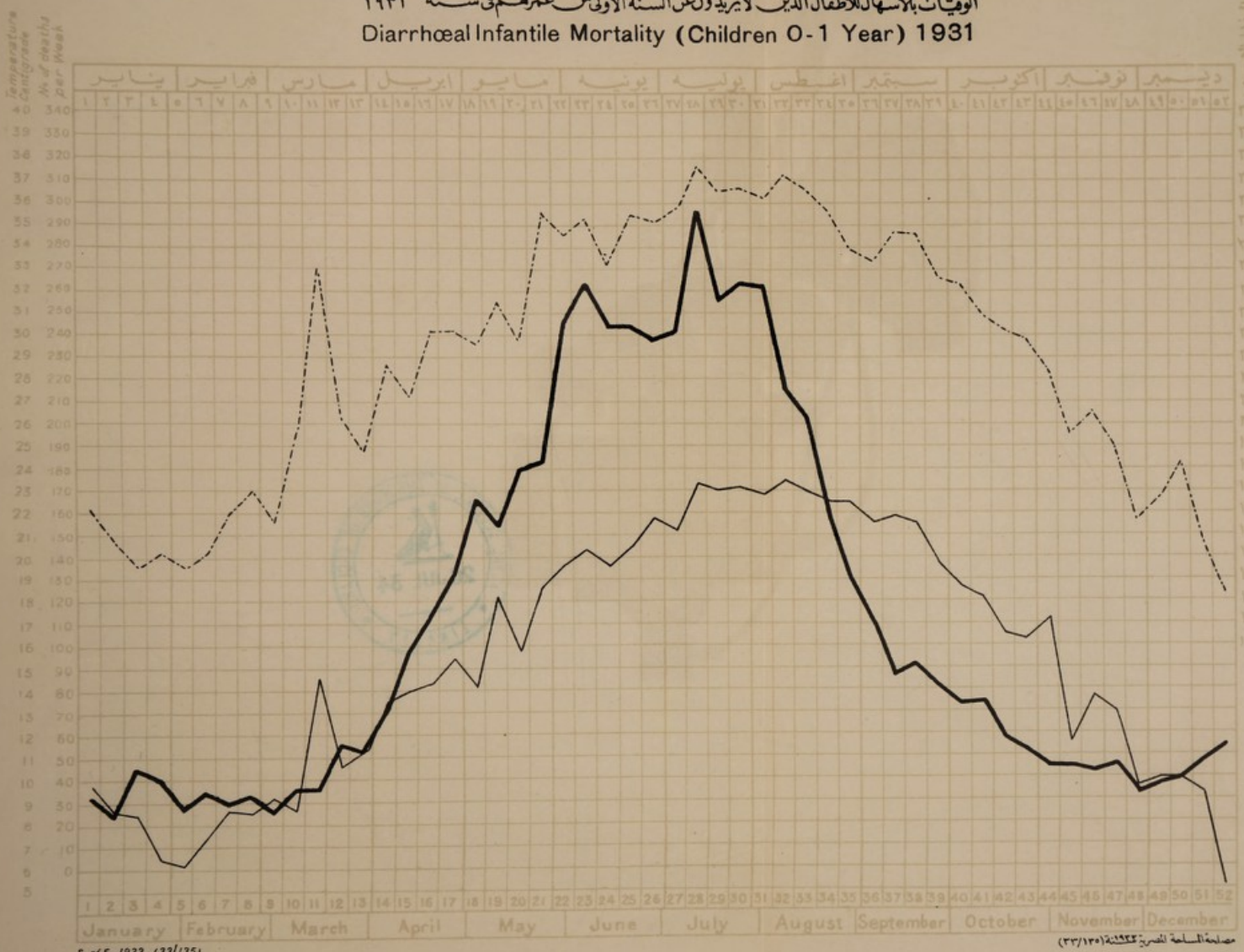
Pulmonary ——— أمراض الصدر

Diarrhœa & Enteritis ——— الاسهال والنزلة المعوية



الرسم رقم ٣
Chart 3

الوفيات بالأسهال للاطفال الذين لا يزيدون عن السنة الاولى من عمرهم فى سنة ١٩٣١
Diarrhœal Infantile Mortality (Children 0-1 Year) 1931



S. of E. 1933 (33/135)

مصلحة الصحة المصرية ١٩٣٣ (٣٣/١٣٥)

Diarrhœa ——— الأسهال

Average Max. Temperature C. ـ ـ ـ ـ ـ ـ متوسط أقصى درجات الحرارة بمقياس سنتيجراد

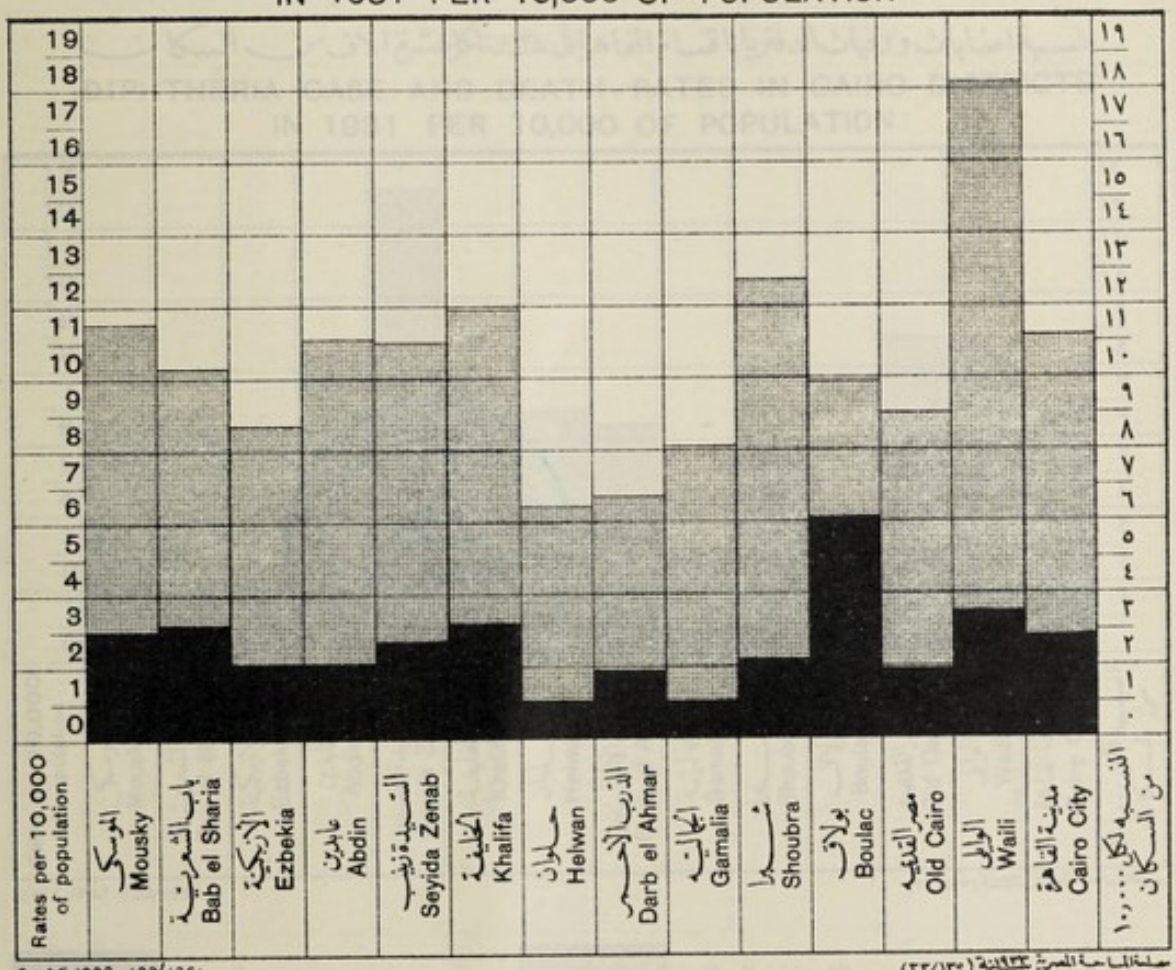
Minimum Temperature C. _____ أدنى درجات الحرارة بمقياس سنتيجراد

Fig.1
Cairo City Health Report 1931

الشكل رقم ١
تقرير صحة مدينة القاهرة لسنة ١٩٣١

نسبة اصابات ووفيات الحمى التيفودية باقسام القاهرة فى سنة ١٩٣١ لكل عشرة آلاف من السكان

TYPHOID FEVER CASE & DEATH-RATES IN CAIRO DISTRICTS
IN 1931 PER 10,000 OF POPULATION



S. of E. 1933 (33/135)

صحة المساحة المصرية ١٩٣٣ (٣٣/١٣٥)

الوفيات
Deaths

الاصابات المبلغ عنها
Cases recorded

Fig.1
Cairo City Health Report 1931

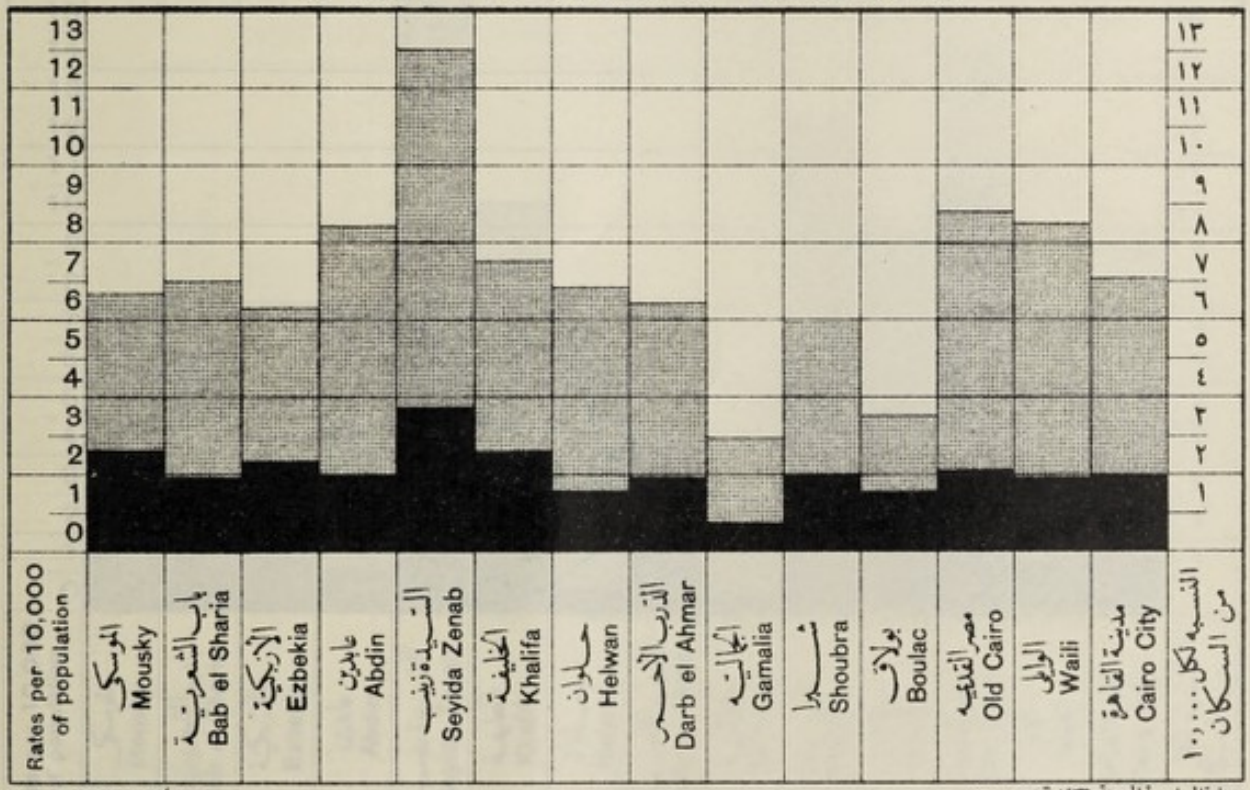
TYPHOID FEVER CASE & DEATH-RATES IN CAIRO DISTRICTS
IN 1931 PER 10,000 OF POPULATION

Fig. 2
Cairo City Health Report 1931

الشكل رقم ٢
تقرير صحة مدينة القاهرة لسنة ١٩٣١

نسبة اصابات ووفيات الدفتريا باقسام القاهرة فى سنة ١٩٣١ لكل عشرة الاف من السكان

DIPHTHERIA CASE AND DEATH-RATES IN CAIRO DISTRICTS IN 1931 PER 10,000 OF POPULATION



S. of E. 1933 (33/135)

صلحة المساحة المصرية سنة ١٩٣٣ (٣٣/١٣٥)

الوفيات
Deaths

الاصابات المبلغ عنها
Cases recorded

Fig. 2
Cairo City Health Report 1931

DIPHTHERIA CASE AND DEATH-RATES IN CAIRO DISTRICTS
IN 1931 PER 10,000 OF POPULATION

Deaths

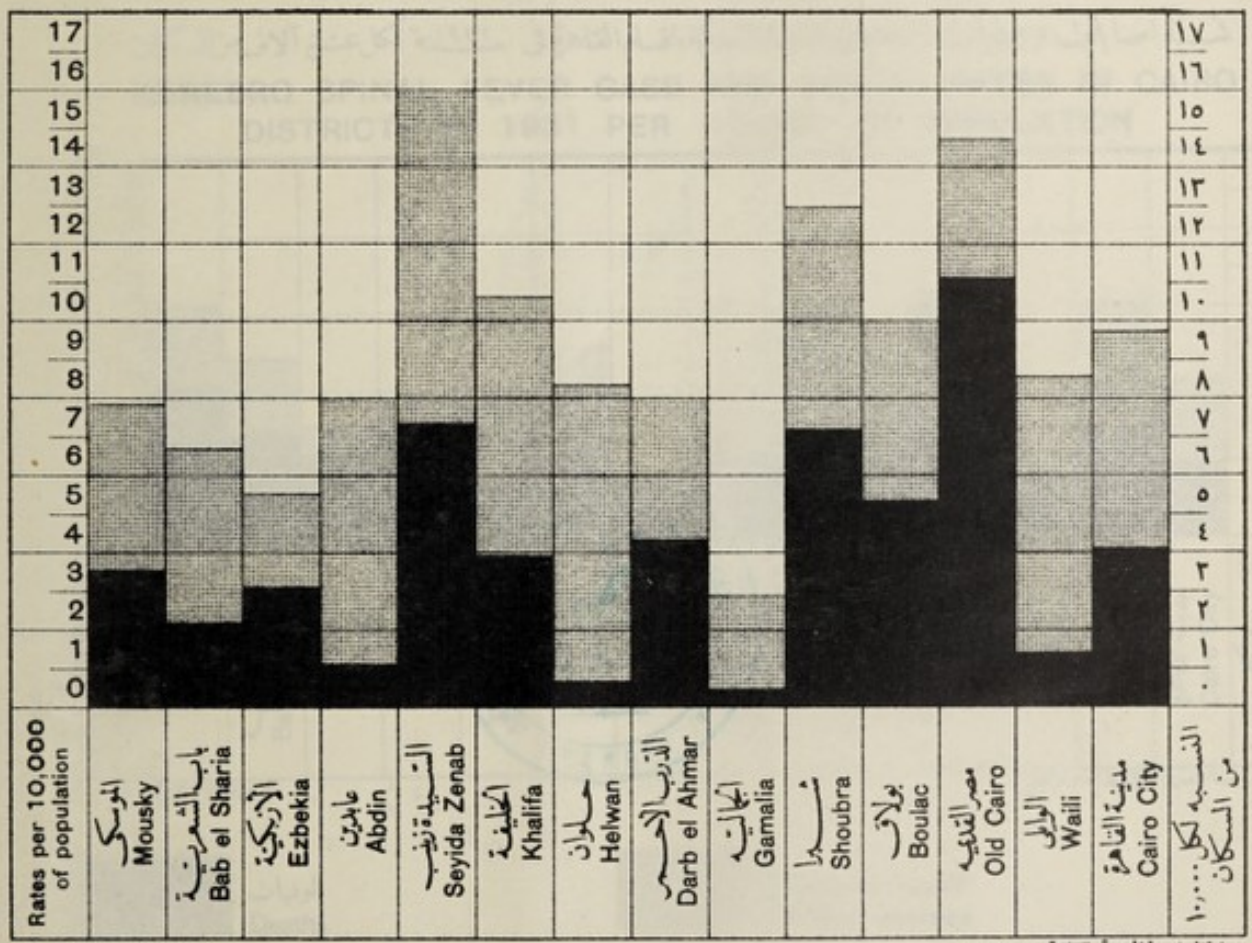
Cases recorded

Fig. 3
Cairo City Health Report 1931

الشكل رقم ٣
تقرير صحة مدينة القاهرة سنة ١٩٣١

نسبة اصابات ووفيات الحصبة باقسام القاهرة فى سنة ١٩٣١ لكل عشرة آلاف من السكان

MEASLES CASE AND DEATH-RATES IN CAIRO DISTRICTS IN 1931 PER 10,000 OF POPULATION



S. of E. 1933 (33/135)

صلحة المساحة المصرية سنة ١٩٣٣ (٣٣/١٣٥)

الوفيات
Deaths

الاصابات المبلغ عنها
Cases recorded

Fig. 3
Cairo City Health Report 1931

MEASLES CASE AND DEATH RATES IN CAIRO DISTRICTS
IN 1931 PER 10,000 OF POPULATION

Deaths

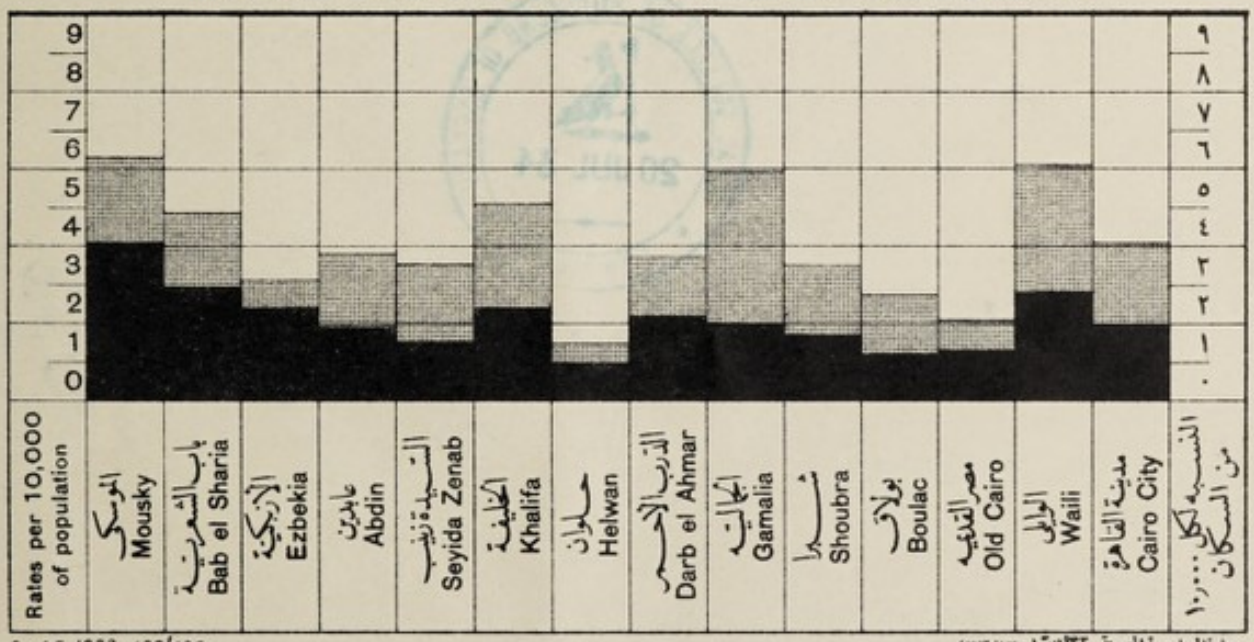
Cases

Fig. 4
Cairo City Health Report 1931

الشكل رقم ٤
تقرير صحة مدينة القاهرة سنة ١٩٣١

نسبة اصابات ووفيات الحمى المخية الشوكية باقسام القاهرة فى سنة ١٩٣١ لكل عشرة آلاف من السكان

CEREBRO SPINAL FEVER CASE AND DEATH-RATES IN CAIRO DISTRICTS IN 1931 PER 10,000 OF POPULATION



S. of E. 1933 (33/135)

صلحة المساحة المصرية سنة ١٩٣٣ (٣٣/١٣٥)

الوفيات
Deaths

الاصابات المبلغ عنها
Cases recorded

Fig. 4
Cairo City Health Report 1931

CEREBRO SPINAL FEVER CASE AND DEATH-RATES IN CAIRO
DISTRICTS IN 1931 PER 10,000 OF POPULATION

Deaths

Cases recorded