

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

Contributors

Egypt. Wizārat al-Ṣiḥḥah al-'Umūmīyah.

Publication/Creation

Bulâq, Cairo : Govt. Printer., [1942]

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MINISTRY OF PUBLIC HEALTH, EGYPT



ANNUAL REPORT

ON THE WORK OF THE

Ministry of Public Health for the Year 1942

Government Press, Cairo, 1948

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ANNUAL REPORT

OF THE

Ministry of Public Health

for the year 1912

Printed and Published by the Government Printer

1913

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MINISTRY OF PUBLIC HEALTH

ANNUAL REPORT FOR THE YEAR 1942

Part I.—PUBLIC HEALTH

Chapter I.—VITAL STATISTICS

A.—*Population.*

The estimated population of Egypt in mid 1942 was 17,226,700 as compared with 17,030,100 in mid 1941.

B.—*Births.*

The total number of births for all Egypt during 1942 was 658,324 or a ratio of 38·2 per thousand population as against a ratio of 40·8 in 1941. The highest birth-rate was 64·3 recorded in Suez Governorate. The lowest was 24·5 recorded in Western Desert Governorate.

C.—*Deaths.*

A total of 494,358 deaths were recorded during 1942 in all Egypt or a ratio of 28·7 per thousand population as against 25·9 in 1941. The highest death-rate was 54·1 recorded in Suez Governorate. The lowest was 16·9 recorded in Qena Province.

D.—*Diseases Causing Deaths.*

Table No. 4 shows the principal diseases causing death in localities having health offices, and the death-rate of each disease to total deaths. It is observed from this table that diarrhoea and enteritis are the most prevalent diseases with diseases of the respiratory system following next.

E.—*Age and Sex Distribution of Deaths.*

Table No. 5 gives the number and rate of deaths in the various age and sex groups in all localities having health offices. According to this table, more than one third of these deaths took place within the first three years of age, and almost half the deaths took place before the end of the second year of age.

F.—*Infantile Mortality.*

The number of infantile deaths in all Egypt was 110,847 or 168 per thousand births. In localities having health offices, 53,913 deaths were recorded or 22·1 per cent of births (*vide* table No. 6). It is observed that diarrhoea and enteritis are responsible for most of these deaths. Table No. 6 shows the age distribution of infantile mortality in localities having health offices. According to this table, most of the deaths occur within the first three months of life.

TABLE NO. 1.—SHOWING RATES OF BIRTHS, DEATHS AND INFANTILE MORTALITY
IN EGYPT FROM 1921 TO 1942

Year	Birth-rate per 1000 population		Death-rate per 1000 population		Infantile mortality per 1000 births	
	Egypt	Urban Districts	Egypt	Urban Districts	Egypt	Urban Districts
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	25·6	29·3	160	217
1932	41·1	45·4	27·6	27·1	175	202
1933	42·1	46·4	26·5	28·6	162·5	204·9
1934	40·3	44·4	26·6	29·5	166·4	209·9
1935	39·4	42·5	25·1	27·7	166·6	202·5
1936	41·8	—	27·3	—	164	—
1937	43·5	46·1	27·2	29·8	165	206
1938	43·4	45·7	26·4	29·5	163	206
1939	43·2	46·8	26·0	29·3	161	200
1940	41·6	45·9	26·5	29·5	162	199
1941	40·8	44·2	25·9	31·0	150	200
1942	38·2	44·4	28·7	36·2	168	228

TABLE NO. 4.—SHOWING DISEASES CAUSING DEATHS IN ALL LOCALITIES HAVING A HEALTH BUREAU DURING 1942

Disease	Total Number of Deaths	Death-rate per 1000 of Total Deaths
Notifiable infectious and parasitic diseases exclusive of those marked * hereunder	8,650	43·2
Pulmonary tuberculosis*	3,154	15·7
Other tuberculous diseases	540	2·7
Syphilis	333	1·7
Malaria*	515	2·6
Dysentery	595	3·0
Pneumonia (acute, chronic and non-chronic, including broncho-pneumonia and capillary bronchitis)	7,278†	36·3
Bronchitis	17,002	84·9
Other respiratory system diseases	2,809	14·0
Heart diseases	4,943	24·7
Other diseases of the circulatory system	1,474	7·4
Diseases of urinary and genital system (other than Venereal)	7,927	39·6
Diseases of puerperium and delivery (other than puerperal septicaemia).	709	3·5
Diseases of diarrhoea and enteritis	72,586	362·3
Senility	23,573	117·7
Accidental deaths including suicides	7,510	37·5
Other causes	40,733	203·3
TOTAL DEATHS	200,331	—

† This figure includes 5,663 deaths from acute pneumonia (lobar or bronchial).

TABLE NO. 5.—SHOWING THE AGE AND SEX DISTRIBUTION OF DEATHS IN LOCALITIES HAVING A HEALTH BUREAU DURING 1942

	Number of Deaths			
	Males	Females	* Total	Percentage to Total Deaths
Less than one year	28,239	25,674	53,913	26·9
1- 2 years	15,506	15,842	31,348	15·6
2- 3 "	8,210	8,785	16,995	8·5
3- 4 "	3,667	3,354	7,021	3·5
4- 5 "	1,885	1,686	3,571	1·8
5-10 "	3,366	2,898	6,264	3·1
10-15 "	2,035	1,396	3,431	1·7
15-20 "	2,012	1,391	3,403	1·7
20-25 "	2,496	1,309	3,805	1·9
25-30 "	2,853	1,644	4,497	2·2
30-35 "	2,789	1,711	4,500	2·2
35-40 "	2,831	1,659	4,490	2·2
40-45 "	2,800	1,761	4,561	2·3
45-50 "	2,486	1,236	3,722	1·9
50-55 "	3,342	1,885	5,227	2·6
55-60 "	1,956	978	2,934	1·5
60-65 "	3,271	2,042	5,313	2·7
65-70 "	2,730	1,795	4,525	2·3
70-75 "	4,116	3,317	7,433	3·7
75-80 "	1,873	1,418	3,291	1·6
80-85 "	3,499	4,105	7,604	3·8
85-90 "	1,010	1,123	2,133	1·1
90-95 "	2,432	3,605	6,037	3·0
95 years and upwards	1,526	2,608	4,134	2·1
Unknown	156	23	179	0·1
TOTAL	107,086	93,245	200,331	—

TABLE NO. 6.—SHOWING THE AGE AND SEX DISTRIBUTION OF INFANTILE MORTALITY IN LOCALITIES HAVING A HEALTH BUREAU DURING 1942

Age		Males	Females	Total	Death-rate per 100 Births	Death-rate per 100 Deaths
0- 1 month	...	4,858	3,812	8,670	3.6	4.3
1- 2 months	...	1,866	1,658	3,524	1.4	1.8
2- 3 "	...	1,973	1,817	3,790	1.6	1.9
0- 3 "	...	8,697	7,287	15,984	6.6	8.0
3- 4 "	...	2,168	2,055	4,223	1.7	2.1
4- 5 "	...	2,323	2,159	4,482	1.8	2.2
5- 6 "	...	2,266	2,037	4,303	1.8	2.1
3- 6 "	...	6,757	6,251	13,008	5.3	6.5
6- 7 "	...	2,926	2,684	5,610	2.3	2.8
7- 8 "	...	2,232	2,163	4,395	1.8	2.2
8- 9 "	...	2,842	2,737	5,579	2.3	2.8
6- 9 "	...	8,000	7,584	15,584	6.4	7.8
9-10 "	...	1,980	1,886	3,866	1.6	1.9
10-11 "	...	1,870	1,736	3,606	1.5	1.8
11-12 "	...	935	930	1,865	0.8	0.9
9-12 "	...	4,785	4,552	9,337	3.8	4.7
GRAND TOTAL		28,239	25,674	53,913	22.1	26.9

TABLE NO. 7.—SHOWING DISEASE DISTRIBUTION OF INFANTILE MORTALITY IN LOCALITIES HAVING A HEALTH BUREAU DURING 1942

Disease	Number of Deaths	Rate per 1000 to Total Births	Rate per 1000 to Total Infantile Mortality
Measles	395	1.6	7.3
Whooping Cough	28	0.1	0.5
Diphtheria	68	0.3	1.3
Tuberculous Diseases	13	0.1	0.2
Syphilis	150	0.6	2.8
Rickets and Osteomalacia	189	0.8	3.5
Convulsions	198	0.8	3.7
Bronchitis	3,636	14.9	67.4
Broncho-Pneumonia	936	3.8	17.4
Pneumonia	277	1.1	5.1
Diarrhoea and Enteritis	31,099	127.6	576.8
Congenital Defects of Conformation	81	0.3	1.5
Congenital Debility	14,773	60.6	274.0
Premature Birth	168	0.7	3.1
Consequences of Delivery	47	0.2	0.9
Infanticide	161	0.7	3.0
Accidents	109	0.4	2.0
Other Causes	1,585	6.5	29.4
TOTAL	53,913	221.3	—

TABLE NO. 9.—BIRTHS AND DEATHS RETURN FOR EGYPT, 1942

Governorates and Provinces	Estimated Population mid 1942	Births			Deaths			Infantile Mortality	
		Egyptians	Foreigners	Total	Rate per 1000 Population	Egyptians	Foreigners	Total	Rate per 1000 Population
<i>Governorates :—</i>									
Cairo	1,409,900	64,563	668	65,231	46.3	51,039	1,042	52,081	36.9
Alexandria	733,400	24,308	897	25,205	34.4	17,053	1,422	18,475	25.2
Ismaïlia (including suburbs)	58,000	2,311	101	2,412	41.6	1,965	121	2,086	36.0
Port Said (including suburbs)	135,300	5,094	79	5,173	38.2	3,395	166	3,561	26.3
Suez (including suburbs)	55,100	3,502	42	3,544	64.3	2,890	92	2,982	54.1
Damietta	44,800	1,852	1	1,853	41.4	1,290	1	1,291	28.8
Sinai	19,100	774	1	775	40.6	526	6	532	27.9
Southern Desert	32,200	1,483	—	1,483	46.1	749	—	749	23.3
Western Desert	57,000	1,350	49	1,399	24.5	1,135	49	1,184	20.8
Red Sea District	10,500	169	2	171	16.3	284	7	291	27.7
TOTAL	2,555,300	105,406	1,840	107,246	42.0	80,326	2,906	83,232	32.6
<i>Lower Egypt Provinces :—</i>									
Behera	1,140,900	40,583	9	40,592	35.6	28,443	36	28,479	25.0
Dakahlia	1,323,600	54,704	5	54,709	41.3	45,614	8	45,622	34.5
Gharbia	2,136,100	83,145	10	83,155	38.9	63,427	29	63,456	29.7
Menoufia	1,235,100	48,231	2	48,233	39.1	40,577	3	40,580	32.9
Kalubia	655,400	27,387	4	27,391	41.8	21,925	4	21,929	33.5
Sharkia	1,201,200	48,164	7	48,171	40.1	32,794	14	32,808	27.3
TOTAL	7,692,300	302,214	37	302,251	39.3	232,780	94	232,874	30.3
<i>Upper Egypt Provinces :—</i>									
Aswân	321,500	9,915	—	9,915	30.8	10,960	3	10,963	34.1
Assiut	1,308,000	49,274	5	49,279	37.7	36,787	3	36,790	28.1
Beni Suef	610,300	21,278	4	21,282	34.9	14,141	3	14,144	23.2
Fayoum	641,200	25,955	—	25,955	40.5	18,402	3	18,405	28.7
Girga	1,236,000	42,963	—	42,963	34.8	28,443	2	28,445	23.0
Giza	757,400	32,184	93	32,277	42.6	25,097	256	25,353	33.5
Minia	1,002,800	36,688	9	36,697	36.6	25,468	16	25,484	25.4
Qena	1,101,900	30,458	1	30,459	27.6	18,667	1	18,668	16.9
TOTAL	6,979,100	248,715	112	248,827	35.7	177,965	287	178,252	25.5
GRAND TOTAL	17,226,700	656,335	1,989	658,324	38.2	491,071	3,287	494,358	28.7
								110,847	168

Chapter II.—INFECTIOUS DISEASES

Births.

A total of 658,324 births were recorded throughout the Egyptian Kingdom during 1942 or a ratio of 38.2 per thousand population as compared with 695,016 births and a ratio of 40.8 per thousand population during 1941. During the previous ten years (1931–1940), the birth-rate ranged between 44.5 in 1931 and 41.9 in 1935.

The falling off of births during 1942 is presumed to be the consequence of the war and its attending evils, namely: malnutrition, shortage of food supplies, the migration of the rural population to towns to seek employment with the military forces and the financial depression.

Deaths.

The total number of deaths during 1942 was 494,358 or an increase of 53,377 over 1941. The death-rate was 28.7 per thousand population as against 25.9 in 1941 or an increase of 2.8 per thousand population. The increase in 1942 was mostly in infants, children and old persons.

A.—Monthly Distribution of Deaths.

From a comparison of the monthly distribution of deaths made as far back as 1935 it will be observed that the 1942 death-rate was highest during the months of February to May, reaching its maximum of 39.5 per thousand population in June, after which it subsided and became almost normal during the last four months of the year.

There is no doubt that the extraordinary circumstances of the war and the deficiency in crops and foodstuffs during the first half of 1942 had a direct bearing on the bad state of public health by diminishing the power of resistance and increasing the risk of morbidity particularly amongst infants, children and old people.

B.—Regional Distribution of Deaths.

Cairo City had the greater part of the increase namely 11,321 deaths or one fourth of the total increase in deaths for all Egypt, with Gharbia, Giza, Menoufia, Dakahlia, Aswan and Gerga following in succession.

Deaths from Infectious Diseases.

During 1942, the total number of deaths from the notifiable diseases was 22,949 as compared with 18,469 in 1941 or an excess of 4,480 deaths.

DISTRIBUTION OF DEATHS OF THE MORE IMPORTANT INFECTIOUS DISEASES.

Cholera and Smallpox.

No cases or deaths of cholera or smallpox occurred during the year.

Plague.

3 deaths of bubonic, 3 deaths of septicaemic and 4 deaths of pneumonic plague were recorded in Port Said during different intervals of the year. No other deaths were recorded elsewhere in Egypt. In 1941, 6 deaths were recorded of which 5 were in Port Said and 1 in Abu Tig.

Typhus.

With the exception of Fayoum and Beni Suef, there was an increase in the number of Typhus cases and deaths in all the Governorates and Provinces as compared with the previous year. A total of 4,411 deaths were recorded or a ratio of 25·8 per 100,000 population as against 1,751 deaths and a ratio of 10·4 in 1941. The increase in Typhus deaths occurred mostly in Cairo, and Alexandria, Lower Egypt Provinces and Giza.

Malaria.

An increase in malaria incidence and mortality was marked in Aswan, Qena and Girga Provinces as a consequence of the invasion of these regions by the Gambia mosquito.

Incidence of Notifiable Infectious Diseases in 1942.

A total of 102,360 cases with 22,949 deaths of infectious diseases were notified throughout Egypt during 1942 or a case-rate of 594 and a death-rate of 133 per 100,000 population as compared with 77,468 cases with 18,469 deaths notified during 1941, i.e. a case-rate of 455 and a death-rate of 109·4 per 100,000 population.

The increase is attributed to the prevalence this year of Typhus, Malaria, Acute Pneumonia, Tuberculosis, Influenza and Typhoid or the diseases which are affected by war time conditions such as malnutrition, congestion and troop movement. There was a noticeable decline in the incidence of plague, smallpox, chickenpox, puerperal fever and whooping cough.

Herebelow is a detailed statement regarding the more important diseases:—

Typhus.

TABLE No. 10.— SHOWS THE TREND OF TYPHUS DURING THE PAST FOUR YEARS

Year	Number of Cases	Ratio per 100,000 Population	Number of Deaths	Ratio per 100,000 of Population	Case-Fatality Rate per cent
1939	4,296	26	788	4·8	18·3
1940	4,416	26	863	5·1	19·5
1941	9,414	56	1,751	10·4	18·6
1942	22,054	128	4,411	25·8	20·0

It is evident from the above table that the case-rate this year is more than twice the rate in 1941 and nearly five times the ratio of 1940 or 1939. The case-fatality-rate is slightly higher than in the previous three years.

Distribution of Typhus Cases according to Governorates and Provinces.

Table No. 17 shows that typhus was prevalent in Cairo and almost all provinces of Lower Egypt and Giza. This was attributed to congestion caused by the arrival of refugees from coastal towns and labour seeking employment with allied troops. Beni Suef Province had less cases than in 1941.

Four-Weekly Distribution of Cases and Comparison with Previous Years.

Perusal of Table No. 19 shows that 1,236 cases were recorded during the first four weeks of the year. A gradual rise in the incidence was maintained until the 17th-20th weeks ended May 20, 1942, when the highest level of 4,623 cases was reached. A decline then followed reaching its lowest level of 142 cases during the 37th to 40th weeks ended October 6, 1942, after which the rise was resumed until 922 cases were recorded during the last four weeks of the year.

Typhus Cases and Deaths and Rate per Million Population and Case Fatality Rate per Thousand from 1905-1942 (Vide Table No. 18).

Typhus was less prevalent during the present war as compared with World War I. Whereas 22,054 cases or 1,289 per million population were recorded during 1942; 9,414 cases or 558 per million in 1941; and 4,416 cases or 263 per million in 1940; 30,507 cases or 2,412 per million population were recorded in 1916; 17,096 cases or 1,368 per million in 1915 and 9,508 cases or 771 per million in 1915.

The case-fatality-rates during this war were 19.5 per cent in 1940, 18.6 per cent in 1941 and 20 per cent in 1942 as compared with 26.6 per cent in 1914, 24.7 per cent in 1915 and 23.3 per cent in 1916.

TABLE No. 11.—BLOOD SPECIMENS FOR WEIL FELIX REACTION TAKEN FROM TYPHUS PATIENTS AND SUSPECTED DEATHS AND RATIO OF POSITIVE RESULTS.

Year	Number of Specimens	Positive for Weil Felix	Negative for Weil Felix	Unfit for Exam.	Percentage of Positives
1942	From Patients: 36,610	12,897	21,999	1,714	35
	From Deaths: 8,429	1,755	4,845	1,829	21.6
1941	From Patients: 19,252	3,688	14,784	780	19.2
	From Deaths: 3,002	220	2,016	766	7.3

Plague (Table No. 22).

A total of 15 cases of plague with 10 deaths were notified throughout Egypt during the year. The following table shows the trend of the disease during the past four years:—

TABLE No. 12

Year	BUBONIC			SEPTICAEMIC			PNEUMONIC			TOTAL				
	C.	D.	C.F.R.	C.	D.	C.F.R.	C.	D.	C.F.R.	C.	Rate	D.	Rate	C.F.R.
			%			%			%		%		%	%
1939	160	50	31.2	9	9	100	—	—	—	169	1	59	0.3	34.9
1940	395	142	35.9	92	92	100	4	4	100	491	2.9	238	1.4	48.4
1941	14	6	42.9	—	—	—	—	—	—	14	0.08	6	.03	42.9
1942	7	3	42.9	3	3	100	4	4	100	15	0.09	10	.06	66.6

Regional Distribution of Cases.

14 cases occurred in Port Said: 1 in January, 1 in June, 3 in July, 2 in August and 7 in November. One case occurred in Ismailia in December.

Vaccination against Plague.

As no cases of plague were reported from other parts of Egypt than the Canal Zone, vaccination was limited to that region. A total of 51,393 persons were vaccinated in Port Said and 170 in Ismailia none of whom developed the disease.

The number of cultures and blood films taken from the various Governorates and Provinces is given hereunder :—

TABLE No. 13

Year	Number of Cultures.	From alive		From dead		Number of Films	From alive		From dead	
		Pos.	Neg.	Pos.	Neg.		Pos.	Neg.	Pos.	Neg.
1941... ..	1,384	8	28	4	1,344	1,133	9	26	2	1,096
1942... ..	1,084	10	117	6	951	667	12	7	6	642

Deratisation.

The stationary posts set up during 1941 at mouths of Ismailia Canal in Shubra, Tewfiki, Menoufi, and Beheri Rayahs in Delta Barrage and Ibrahimieh, Yusfi and Walidieh Canals near Assiut Dam continued to exterminate rats from river craft. During 1942, more posts were set up in Deirout town, Sahil Athar el Nabi, Old Cairo, Canal locks at Ismailia and Mahmoudieh. 68,184 boats were supplied with traps which caught 44,114 rats. In addition, some 21,310 live and 97 dead rats were caught by rat gangs in towns and villages. Of this number, 11,858 live and 77 dead rats were caught in Port Said.

The installation of these river posts and the almost total suspension of river transport of goods from the Ports as a consequence of the war have been responsible for the disappearance of plague from the interior of the country.

Typhoid and Paratyphoid (Table No. 17).

During the year, a total of 6,814 cases were reported from all Egypt or a ratio of 39 per 100,000 population with 1,257 deaths or 7 per 100,000 population. The case fatality rate was 18.4 per cent as against 5,758 cases and 1,179 deaths in 1941 or a ratio of 34.1 and 7 per 100,000 population and a case fatality rate of 20.5 per cent. As compared with 1941, there was a rise in the incidence of typhoid in Cairo, Alexandria, Port Said and Suez and a decline in most of the provinces.

Anti-Typhoid Vaccination.

A total of 362,201 persons were vaccinated against the enteric fevers. Of this number 47,739 were vaccinated by private practitioners and 314,462 by health units. These included 43,290 persons vaccinated by the Prisons Department, 21,616 by Army Medical Service, 84,158 in Alexandria and 112,724 in Cairo (*vide Table No. 24*).

Smallpox.

With the exception of two cases in 1940, no cases or deaths of smallpox were reported during this year or the past three years.

Smallpox General Vaccination (Table No. 23).

Although no cases of smallpox were discovered, the periodical general vaccination of the population was continued. A total of 4,081,256 persons were vaccinated during the year in Dakahlia, Menoufia, Behera, Minia, Girga and Giza Provinces, the Canal Governorate, and some Frontier Districts.

Cerebro-Spinal Meningitis (Table No. 17).

212 cases with 101 deaths were reported during the year or a case-rate of 1.2 and a death-rate of 0.6 per 100,000 population and a case-fatality-rate of 47.6 per cent as against 159 cases and 94 deaths in 1941 or a case-rate of 0.9 and a death-rate of 0.5 per 100,000 population and a case-fatality-rate of 59.1 per cent. Most of the cases were recorded in Cairo, Alexandria, Port Said, Suez and Gharbia Province.

Diphtheria (Table No. 17).

3,950 cases of Diphtheria with 1,882 deaths were reported during the year or a case-rate of 22.9 and a death-rate of 10.9 per 100,000 population and a case-fatality-rate of 47.6 per cent as against 4,037 cases with 1,932 deaths in 1941 or a case-rate of 23.9 and a death-rate of 11.4 per 100,000 population and a case-fatality-rate of 47.8 per cent.

There was a relative excess of cases this year in Behera, Dakahlia, Menoufia, Kaliubia, Assiut and Beni Suef, but these were less in Cairo and Alexandria.

Anti Diphtheria Immunization.

89,214 children between one and 10 years of age received anatoxin injections. Of these 187 children (107 in Alexandria and 71 in Cairo) developed diphtheria after receiving the three injections (*Vide* table No. 25).

Measles (Table No. 17).

A total of 9,764 cases of measles with 3,654 deaths were recorded during the year or a case-rate of 56.6 and a death-rate of 29.2 per 100,000 population and a case-fatality-rate of 37.4 per cent as against 9,769 cases with 2,870 deaths during 1941 or a case-rate of 57.9 and a death-rate of 17 per 100,000 population and a case-fatality-rate of 29.3 per cent.

There was an excess of cases in Cairo, Dakahlia, Menoufia, Kaliubia, Assiut, Beni Suef, Giza and Qena, but there were less cases in Alexandria, Suez, Behera, Gharbia, Aswan and Fayoum.

Influenza (Table No. 17).

12,965 cases with 218 deaths of influenza were recorded during the year or a case-rate of 75.3 and a death-rate of 1.3 per 100,000 population and a case-fatality-rate of 1.7 per cent as against 11,120 cases with 178 deaths in 1941 or a case-rate of 65.9 and a death-rate of 1 per 100,000 population and a case-fatality-rate of 1.6 per cent.

Pneumonia (Table No. 17).

6,215 cases with 5,296 deaths of pneumonia were recorded during the year or a case-rate of 36.1 and a death-rate of 30.7 per 100,000 population and a case-fatality-rate of 85.2 per cent as against 5,414 cases with 4,843 deaths during 1941 or a case-rate of 32.1 and a death-rate of 28.7 per 100,000 population and a case-fatality-rate of 89.4 per cent.

Control of Pilgrims.

11,687 Egyptian pilgrims proceeded to the Hedjaz this year of whom 11,685 returned 2 having died in the Hedjaz and Tour. 12 of the returning pilgrims were admitted to infectious diseases hospitals during the observation period. These were diagnosed as follows: 1 chicken pox, 1 smallpox, 1 paratyphoid in Abbassia Fever Hospital, 1 influenza in Shebin el Kom and the remainder were not found suffering from any infectious diseases.

During the segregation of pilgrims in Tour Quarantine on their return from the Hedjaz, 4 suspected smallpox cases were detected amongst the pilgrims in January. It was later discovered that the Hedjaz was overrun by a smallpox epidemic which has been transmitted to this country by the pilgrims.

Infectious Diseases Hospitals (Table No. 26).

Up till the end of 1942, there were 19 isolation hospitals in Governorates and Bandar towns, 15 built up village shelters and 28 cordons consisting of tents.

A total of 52,490 patients (31,849 males and 20,641 females) were admitted to the infectious diseases hospitals. Of these 43,745 (26,414 males and 17,331 females) recovered; 2,523 (1,870 males and 653 females) improved and 5,222 (3,238 males and 1,984 females) died.

These figures do not include patients isolated in village shelters or cordons.

TABLE NO. 14.—BIRTH-RATE, DEATH-RATE AND INFANTILE

Localities	1937			1938		
	Birth-rate per 1000 Population	Death-rate per 1000 Population	I.M.-rate per 1000 Births	Birth-rate per 1000 Population	Death-rate per 100 Population	I.M.-rate per 1000 Births
Cairo	44.7	25.8	192	42.2	28.1	204
Alexandria	42.6	27.9	222	42.3	24.7	202
Ismailia	50.6	26.3	182	51.6	24.2	205
Port Said (Gov.)	41.4	22.4	163	41.0	20.8	157
Damietta (Gov.)	45.4	26.1	173	44.2	22.2	134
Suez (Gov.)	50.9	30.2	231	51.4	27.6	220
Frontier Districts	32.5	23.0	163	39.6	17.0	132
Behera Province	36.5	23.6	126	38.9	22.6	112
Dakahlia Province	48.3	32.1	171	48.7	28.1	159
Gharbia Province	44.0	27.8	151	44.8	27.3	153
Menufia Province	46.0	31.3	173	44.3	31.5	188
Kaliubia Province	45.6	29.9	172	45.3	32.9	182
Sharkia Province	41.6	26.7	143	45.3	25.5	135
Aswan Province	36.6	27.3	149	34.6	24.2	150
Assiut	45.4	26.5	166	45.3	25.2	157
Beni Suef Province	41.8	23.8	153	40.0	24.3	166
Fayum Province	44.0	35.6	235	45.0	31.5	242
Girga Province	46.2	23.9	132	44.6	23.2	129
Giza Province	48.6	29.2	174	45.4	31.3	187
Minia Province	42.4	29.3	202	43.2	26.2	182
Qena Province	37.5	18.0	118	35.7	19.6	127
Egypt	43.5	27.2	165	43.4	26.4	163

MORTALITY-RATE IN EGYPT AND DIFFERENT LOCALITIES

1939			1940			1941			1942		
Birth-rate per 1000 Population	Death-rate per 1000 Population	I.M.-rate per 1000 Births	Birth-rate per 1000 Population	Death-rate per 1000 Population	I.M.-rate per 1000 Births	Birth-rate per 1000 Population	Death-rate per 1000 Population	I.M.-rate per 1000 Births	Birth-rate per 1000 Population	Death-rate per 1000 Population	I.M.-rate per 1000 Births
45.0	25.8	190	43.3	26.8	197	45.0	28.8	198	46.3	36.9	247
41.8	24.1	197	37.7	22.3	188	28.0	23.3	193	34.4	25.2	204
50.8	23.8	168	53.2	26.9	186	68.6	42.9	235	44.7	38.5	214
38.9	24.1	166	38.7	18.1	131	31.5	21.6	169	38.3	26.5	183
42.5	22.5	149	45.1	22.1	148	46.5	23.0	139	41.4	28.8	174
54.1	32.1	245	57.7	31.5	204	47.3	44.0	254	66.1	58.1	288
37.7	18.0	140	38.1	31.3	136	35.6	31.6	176	32.2	23.3	165
37.9	22.5	118	36.9	23.6	126	37.9	25.5	122	35.7	25.0	121
46.3	29.5	160	46.0	30.5	163	46.4	30.8	157	41.3	34.5	171
43.6	27.3	148	43.9	28.6	151	43.9	26.3	127	39.1	32.9	146
43.4	29.7	168	43.6	32.3	185	44.4	29.3	155	38.9	29.7	195
44.5	30.0	170	43.7	32.1	182	44.5	30.3	130	41.8	33.5	179
42.1	26.1	138	41.6	25.3	134	41.1	26.6	136	40.1	27.3	136
34.5	21.7	128	54.5	24.6	144	35.1	24.3	133	30.8	34.1	157
43.1	28.4	175	43.1	27.0	164	41.0	25.9	154	37.7	28.1	166
39.5	23.6	153	38.7	21.6	138	37.1	19.7	119	34.9	23.2	144
45.3	33.4	231	42.7	30.0	214	41.8	28.1	202	40.5	28.7	196
41.8	21.6	126	41.8	23.5	132	39.4	20.9	117	34.8	23.0	122
47.1	27.1	173	46.4	28.9	178	45.4	27.8	158	42.6	33.5	196
40.8	27.1	187	40.8	26.8	184	40.0	23.6	160	36.6	25.4	169
32.3	17.3	130	33.3	17.9	123	31.2	17.2	117	27.6	16.9	110
42.2	26.0	160	41.6	26.5	162	40.8	25.9	150	38.2	28.7	162

TABLE No. 15.—MONTHLY DEATH-RATES PER 1,000 POPULATION RECORDED
IN EGYPT FOR 1935-1942

MONTH	YEARS							
	1935	1936	1937	1938	1939	1940	1941	1942
January	27.0	21.7	28.5	25.1	24.1	25.8	23.3	24.6
February	21.3	21.3	19.4	20.9	18.7	19.9	19.1	24.1
March	21.4	22.2	21.3	21.2	20.1	21.8	20.6	23.8
April	21.8	24.4	24.7	20.5	21.0	25.5	22.6	27.8
May	27.3	29.7	30.9	25.9	27.9	31.8	29.4	34.2
June	33.2	31.8	31.5	29.0	30.9	32.1	31.1	39.5
July	32.8	34.2	32.9	34.8	34.9	32.7	32.3	33.9
August	29.6	34.7	31.4	34.5	31.4	29.0	31.8	28.1
September	26.0	29.5	27.0	28.4	26.1	24.7	26.1	24.8
October	26.5	30.1	27.3	25.7	24.9	24.0	24.7	25.1
November	25.4	30.4	25.0	24.9	25.0	24.2	24.5	25.4
December	24.3	35.8	26.6	25.8	27.0	26.3	25.4	25.6
TOTAL	26.4	28.8	27.2	26.4	26.0	26.5	25.9	28.1

**TABLE No. 16.—SHOWING THE INCIDENCE OF INFECTIOUS DISEASES DURING THE
LAST 3 YEARS AND THE CASE FATALITY RATES**

Disease	1940			1941			1942		
	Cases	Deaths	C.F.R.	Cases	Deaths	C.F.R.	Cases	Deaths	C.F.R.
Plague... ..	491	238	48.4	14	6	42.9	15	10	66.6
Typhus	4,416	863	19.5	9,414	1,751	18.6	22,054	4,411	20.0
Typhoid and Paratyphoid	4,814	934	19.3	5,758	1,179	20.5	6,814	1,257	18.4
Scarlet Fever	105	3	2.8	91	—	—	39	2	5.1
Cerebro-Spinal Meningitis	191	96	50.2	159	94	59.1	212	101	47.6
Diphtheria	2,433	1,178	48.4	4,037	1,932	47.8	3,950	1,882	47.6
Measles	14,967	3,581	23.9	9,769	2,870	29.3	9,764	3,654	37.4
Tuberculosis	6,236	2,786	44.6	6,296	3,029	48.0	6,608	3,472	52.5
T.B. of other organs	30	455	—	84	503	—	157	525	—
Chicken-pox	1,351	15	1.1	1,862	15	0.8	870	8	0.9
Puerperal Fever	489	340	62.5	461	344	74.6	332	208	62.7
Dysentery	2,205	385	17.4	3,447	509	14.7	3,553	577	16.2
Influenza	9,763	180	1.8	11,120	178	1.6	12,965	218	1.7
Anthrax	22	5	22.7	22	5	22.7	21	4	19.0
Acute Encephalitis	3	9	—	7	9	—	6	5	83.3
Whooping Cough	3,238	172	5.3	2,923	173	5.9	2,257	142	6.3
Mumps	1,704	27	1.5	1,755	19	1.1	1,453	30	2.1
Undulant Fever	27	2	7.4	20	—	—	9	2	22.2
Leprosy	545	69	12.6	511	79	15.5	520	82	15.8
Rabies... ..	21	35	—	30	34	—	44	43	97.7
Tetanus	476	310	65.1	433	314	72.5	459	313	68.2
Acute Polio-Myelitis	16	6	37.5	16	9	56.2	5	1	20.0
Dengue	3	—	—	—	—	—	—	—	—
Erysipelas	4,827	466	9.6	4,502	468	10.3	3,100	312	10.1
Malaria	13,444	68	0.5	9,320	104	1.1	20,937	394	1.9
Jaundice	—	—	—	3	2	66.6	1	—	—
Small-pox	2	—	—	—	—	—	—	—	—
Relapsing Fever	1	—	—	—	—	—	—	—	—
Acute Pneumonia	3,545	4,939	—	5,414	4,843	89.4	6,215	5,296	85.2
Glanders	—	1	—	—	—	—	—	—	—
TOTAL	75,392	17,163	22.8	77,468	18,469	23.8	102,360	22,949	22.4

TABLE NO. 17.—CASES AND DEATHS OF CHIEF INFECTIOUS DISEASES NOTIFIED DURING 1941

Governorate or Province	Year	Plague		Typhus		Typhoid		Cerebro-Spinal Meningitis		Diphtheria	
		C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
Cairo	1941	—	—	168	34	2,534	465	81	42	2,008	696
	1942	—	—	2,244	554	3,560	650	102	39	1,662	534
Alexandria	1941	—	—	170	47	1,211	264	24	9	576	198
	1942	—	—	521	151	1,516	256	35	22	524	198
Ismailia	1941	—	—	—	—	70	63	3	3	21	18
	1942	1	—	85	31	37	12	1	1	22	19
Port-Said	1941	10	5	24	—	104	13	6	—	78	33
	1942	14	10	68	7	307	30	17	6	54	19
Damietta	1941	—	—	—	—	5	—	—	—	2	2
	1942	—	—	—	6	3	10	1	1	8	31
Suez	1941	—	—	4	2	116	22	27	2	29	13
	1942	—	—	91	28	171	30	19	8	34	18
Frontiers	1941	—	—	91	8	141	15	—	—	2	1
	1942	—	—	113	18	32	6	—	—	—	—
Behera	1941	—	—	1,835	384	171	41	5	3	82	69
	1942	—	—	2,788	628	110	17	2	1	116	71
Dakahlia	1941	—	—	1,763	370	70	14	2	4	206	160
	1942	—	—	4,069	708	71	25	5	3	288	207
Gharbia	1941	—	—	2,152	366	152	35	12	17	255	203
	1942	—	—	4,978	870	94	27	13	9	263	213
Menoufia	1941	—	—	678	102	223	34	6	2	170	109
	1942	—	—	2367	426	99	17	1	4	206	112
Kaliubia	1941	—	—	250	43	123	22	1	3	93	81
	1942	—	—	363	110	115	16	2	1	121	81
Sharkia	1941	—	—	688	135	113	27	—	—	136	94
	1942	—	—	1,477	274	75	15	6	3	124	90
Aswan	1941	—	—	2	1	9	1	—	—	21	12
	1942	—	—	63	14	17	3	1	—	13	8
Assiut	1941	4	1	171	35	186	46	1	2	68	56
	1942	—	—	356	76	167	47	—	1	98	47
Beni Suef	1941	—	—	911	137	78	11	—	—	30	22
	1942	—	—	411	72	85	13	—	—	70	37
Fayoum	1941	—	—	5	1	28	8	3	2	17	10
	1942	—	—	8	1	36	18	1	—	27	18
Girga	1941	—	—	109	14	66	22	—	—	24	21
	1942	—	—	351	73	22	11	1	—	34	31
Giza	1941	—	—	350	63	210	49	6	3	134	88
	1942	—	—	1,481	296	171	28	5	2	76	40
Minia	1941	—	—	5	1	91	16	2	2	61	34
	1942	—	—	55	14	95	18	—	—	61	49
Qena	1941	—	—	38	8	57	11	—	—	24	18
	1942	—	—	165	54	31	17	—	—	49	32
TOTAL	1941	14	6	9,414	1,751	5,758	1,179	159	94	4,037	1,932
	1942	15	10	22,054	4,411	6,814	1,257	212	101	3,950	1,882

ND 1942 AND THEIR DISTRIBUTION ACCORDING TO GOVERNORATES AND PROVINCES

Measles		Tuberculosis		Acute Pneumonia		Influenza		Malaria		Total of other Diseases		GENERAL TOTAL	
C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
762	264	2,877	1,201	1,836	1,632	1,357	29	668	16	4,335	641	16,626	5,012
721	1,090	3,180	1,484	2,330	2,403	1,992	27	601	14	3,148	683	20,940	7,480
272	350	1,159	395	1,294	1,051	5,241	11	1,911	22	1,873	236	14,731	2,583
134	29	1,284	461	1,545	995	4,930	11	1,933	10	1,552	264	13,974	2,397
15	4	12	23	24	26	28	1	1,377	14	125	35	1,675	187
12	3	5	12	10	27	85	1	1,759	10	35	14	2,052	130
19	4	85	42	72	22	126	1	119	3	181	13	824	136
28	3	150	52	81	17	163	—	160	2	251	26	1,293	172
48	—	65	36	12	2	34	4	12	1	463	4	641	43
15	—	32	22	9	5	36	1	17	—	91	7	212	74
122	77	43	30	165	91	212	1	329	4	262	40	1,289	282
29	8	22	39	210	85	595	12	287	13	389	57	1,847	298
202	22	19	4	2	1	113	7	180	—	111	6	861	64
60	1	6	5	5	4	70	5	462	—	78	11	826	50
294	116	236	161	107	132	546	20	720	8	564	120	4,560	1,054
139	79	142	157	118	96	450	16	1,191	4	356	110	5,412	1,179
1,083	237	373	166	179	216	560	30	178	1	1,276	177	5,690	1,375
1,166	283	347	165	111	145	650	24	134	2	750	105	7,591	1,667
1,112	245	275	205	221	378	818	22	768	9	1,525	186	7,290	1,666
555	215	313	183	147	445	844	19	264	4	1,049	185	8,620	2,170
504	89	138	78	122	92	345	9	147	3	881	136	3,214	654
715	90	104	72	149	77	746	25	57	—	580	100	5,024	923
242	76	111	94	113	136	481	15	1,256	4	595	117	3,265	585
587	83	101	57	121	49	438	8	1,738	—	555	85	4,141	490
710	141	175	116	107	68	131	3	565	5	772	107	3,397	696
708	193	173	122	62	46	287	6	247	1	428	58	3,787	808
374	129	26	21	49	22	22	2	5	—	191	18	672	206
138	19	28	26	34	9	113	5	7,219	285	410	14	8,036	383
969	421	134	102	340	225	226	8	72	2	706	189	2,877	1,087
1,078	567	154	174	245	232	347	14	185	1	828	133	3,458	1,319
47	9	51	43	72	78	326	9	56	2	221	50	1,792	361
267	56	52	64	107	87	231	6	92	5	226	36	1,521	376
323	69	140	71	104	112	47	1	484	—	207	42	1,358	316
36	12	119	86	56	20	47	1	1,297	7	318	44	1,945	207
412	188	43	32	159	89	86	2	21	3	291	78	1,211	449
475	126	62	40	79	51	170	13	1,879	11	328	67	3,401	423
433	137	193	128	246	311	279	2	138	1	517	122	2,506	904
959	284	164	141	218	300	463	6	92	—	329	93	3,758	1,190
704	234	91	51	105	111	49	2	89	3	496	74	1,693	528
724	354	113	60	61	144	112	13	48	1	613	95	1,882	748
149	64	50	36	85	48	93	1	225	3	575	92	1,296	281
418	159	57	50	117	57	196	5	1,095	24	512	97	2,640	495
9,769	2,870	6,296	3,029	5,414	4,843	11,120	178	9,320	104	16,167	2,483	77,468	18,469
9,764	3,654	6,608	3,472	6,215	5,296	12,965	218	20,937	394	12,826	2,254	102,360	22,949

**TABLE NO. 18.—CASES AND DEATHS FROM TYPHUS, RATE PER 1,000,000 AND CASE FATALITY
RATE IN EGYPT FROM YEAR 1905 to 1942**

Year	No. of Cases	Ratio of Cases per 1,000,000	No. of Deaths	Ratio of Deaths per 1,000,000	Case Fatality Rate	Year	No. of Cases	Ratio of Cases per 1,000,000	No. of Deaths	Ratio of Deaths per 1,000,000	Case Fatality Rate
1905	2,478	226	1,111	101	44.8	1924	1,683	122	588	42	34.9
1906	1,668	150	938	84	56.2	1925	1,314	94	290	21	22.1
1907	3,601	94	836	74	78.6	1926	966	68	201	14	20.8
1908	2,926	250	1,153	101	39.4	1927	794	56	189	13	23.8
1909	2,873	326	1,608	139	42.5	1928	599	41	138	9	23.0
1910	2,908	248	1,210	103	41.6	1929	1,141	78	214	15	18.8
1911	5,151	423	1,702	143	33.0	1930	288	19	74	5	25.7
1912	5,382	447	1,658	138	30.8	1931	365	18	57	4	21.5
1913	4,936	405	1,438	118	29.1	1932	2,298	153	399	26	17.5
1914	9,508	771	2,523	205	26.6	1933	7,865	515	1,332	87	16.9
1915	17,096	1,368	4,216	337	24.7	1934	7,536	488	1,418	92	18.8
1916	30,507	2,412	7,096	561	23.3	1935	3,151	202	526	34	16.7
1917	18,569	1,451	4,174	326	22.5	1936	2,757	174	3,851	25	14.1
1918	25,246	1,952	7,354	568	29.1	1937	2,083	130	311	19	14.9
1919	16,986	299	5,573	426	32.8	1938	2,811	173	405	25	14.4
1920	13,253	1,002	3,510	265	26.5	1939	4,296	260	788	48	18.3
1921	4,487	335	1,271	95	28.3	1940	4,416	263	863	51	19.5
1922	2,489	184	723	53	29.0	1941	9,414	558	1,751	104	18.6
1923	1,935	142	603	44	31.2	1942	22,054	1,289	4,411	258	20.0

TABLE NO. 19.—CASES OF TYPHUS RECORDED FOUR-WEEKLY FROM YEAR 1935 TO 1942

Weeks	1935	1936	1937	1938	1939	1940	1941	1942
1- 4	143	185	109	600	76	186	416	1,236
5- 8	585	388	195	182	334	531	855	2,331
9-12	561	461	157	285	804	980	1,739	3,145
13-16	694	592	259	491	876	966	1,898	4,469
17-20	573	427	675	726	908	777	1,796	4,623
21-24	270	300	385	506	631	407	1,211	2,689
25-28	143	242	164	203	345	250	425	1,337
29-32	53	41	63	103	133	102	234	527
33-36	31	12	35	70	46	68	92	190
37-40	17	9	8	19	16	26	20	142
41-44	6	10	10	8	13	22	31	152
45-48	24	15	10	9	11	29	235	291
49-52	51	25	13	49	103	72	462	922
TOTAL	3,101	2,757	2,083	2,811	4,296	4,416	9,414	22,054

TABLE No. 20.—NUMBER OF CASES AND DEATHS OF TYPHUS FROM 1933 TO 1942 AT

Governorates and Provinces	1933		1934		1935		1936		1937	
	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
Cairo	209	63	48	9	37	9	76	24	103	
Alexandria	77	32	36	16	73	22	14	7	87	
Frontiers	14	2	18	1	15	3	45	3	15	
Port-Said	—	—	10	2	8	—	4	1	6	—
Suez... ..	—	—	—	—	1	1	2	—	4	—
Ismailia	—	—	—	—	—	—	—	—	2	—
Damietta	8	—	46	4	—	—	—	—	2	
Kaliubia	45	13	30	11	26	2	31	5	38	
Sharkia	193	28	292	77	160	46	125	25	44	
Menoufia	698	107	1,383	263	342	80	126	20	147	
Gharbia	2,428	389	1,966	371	1,027	124	862	93	590	
Dakahlia	1,138	242	859	191	222	40	312	58	362	
Behera	2,648	374	2,716	443	1,008	147	867	91	423	
Glza	17	11	4	2	70	13	103	16	18	
Beni-Suef	—	—	—	—	14	2	—	—	10	
Fayoum	2	2	3	2	2	—	6	—	4	
Minia	2	2	3	—	17	2	8	1	36	
Assiut	21	8	39	14	23	7	34	4	38	
Girga	54	5	27	3	13	2	6	4	34	
Qena	169	37	49	9	8	6	90	15	77	1
Aswan	95	17	7	—	85	20	36	2	43	
TOTAL	7,868	1,332	7,536	1,418	3,151	526	2,757	389	2,083	31

PER MILLION POPULATION IN THE LAST TWO YEARS, DISTRIBUTED ACCORDING TO DISTRICTS

1938		1939		1940		1941				1942			
	D.	C.	D.	C.	D.	C.	D.	Rate of C. and D. per 100,000 of Population		C.	D.	Rate of C. and D. per 100,000 of Population	
								C.	D.			C.	D.
128	87	209	43	364	58	168	34	12	2	2,244	554	158	39
43	11	60	11	117	28	170	47	23	6	521	151	71	21
51	—	3	2	5	1	91	8	77	7	113	18	95	15
1	—	3	—	21	—	24	—	18	—	68	7	50	5
—	—	4	—	2	1	4	2	7	4	91	28	165	51
—	—	2	—	2	—	—	—	—	—	85	31	145	35
1	—	1	1	—	—	—	—	—	—	6	6	13	13
124	15	260	44	15	4	250	43	29	7	363	110	55	17
86	19	200	41	74	21	688	135	58	11	1,477	274	123	23
354	43	549	110	680	121	687	102	55	8	2,367	426	191	34
316	47	1,195	224	944	151	2,152	366	102	12	4,978	870	232	41
274	46	767	121	699	145	1,763	370	134	28	4,069	708	307	53
574	61	318	69	816	187	1,835	384	163	34	2,788	628	244	55
186	25	183	38	228	35	350	63	47	8	1,481	296	195	36
—	—	28	3	105	29	911	137	151	22	411	72	67	12
2	—	12	2	18	2	5	1	8	2	8	1	1	0.1
48	4	5	1	3	—	5	1	1	—	55	14	5	1
54	5	29	18	74	16	171	35	13	3	356	67	27	6
102	16	242	43	140	42	109	14	9	1	351	73	28	6
323	41	206	15	38	5	38	8	3	0.7	165	54	15	5*
162	35	3	2	91	17	2	1	0.6	0.3	63	14	20	4
811	405	4,297	788	4,416	863	9,414	1,751	55	10	22,060	4,411	128	26

TABLE No. 21.—BLOOD SAMPLES IN 1942 FOR WEIL FELIX REACTION

Governorate or Province	No. of Samples sent to Labs.			No. Positive			No. Negative			No. Spoiled		
	from Alive	from Dead	Total	from Alive	from Dead	Total	from Alive	from Dead	Total	from Alive	from Dead	Total
Cairo {	11,110	—	11,110	2,083	—	2,083	8,991	—	8,991	36	—	36
Alexandria {	371	107	478	7	12	19	357	70	427	7	25	32
Damietta...	1,359	—	1,359	407	—	407	952	—	952	—	—	—
Port Said...	174	—	174	25	—	25	149	—	149	—	—	—
Ismailia ...	204	4	208	73	—	73	131	4	135	—	—	—
Suez ...	181	—	181	54	—	54	102	—	102	25	—	25
F.D. Adm. ...	1,194	121	1,315	89	20	109	1,100	100	1,200	5	1	6
Behera ...	208	22	230	112	21	133	93	—	93	3	1	4
Gharbia ...	2,852	875	3,727	1,123	107	1,230	1,520	614	2,134	209	154	363
Menoufia ...	4,125	1,524	5,649	1,934	379	2,313	1,911	867	2,778	280	278	558
Dakahlia ...	2,447	1,439	3,886	1,066	198	1,264	1,212	940	2,152	169	301	470
Sharkia ...	3,466	2,090	5,556	1,886	585	2,471	1,298	1,247	2,545	282	258	540
Kaliubia ...	4,543	1,271	5,814	2,571	316	2,887	1,628	59	2,137	344	446	790
Giza ...	269	123	392	74	16	90	133	89	222	62	18	80
Fayoum ...	1,360	374	1,734	587	51	638	613	147	760	160	176	336
Beni-Suef...	347	82	429	1	—	1	342	49	391	4	33	37
Minya ...	189	145	334	94	34	128	95	62	157	—	49	49
Assiut ...	191	14	205	12	—	12	179	14	193	—	—	—
Girga ...	882	88	970	351	1	352	496	53	549	35	34	69
Qena ...	601	92	693	240	13	253	334	60	394	27	19	46
Aswan ...	266	53	319	72	2	74	170	15	185	24	36	60
	271	5	276	36	—	36	193	5	198	42	—	42
TOTAL ...	36,610	8,429	45,039	12,897	1,755	14,652	21,999	4,845	26,844	1,714	1,829	3,543

TABLE No. 22.—SHOWING NO. VACCINATED AGAINST PLAGUE IN 1942

Governorate or Province	Cases	Deaths	No. Vaccinated	No. of Cases			No. of Contacts Observed	No. of rats trapped	
				Before	After	Sort		Alive	Dead
Cairo ...	—	—	—	—	—	—	—	—	—
Alexandria ...	—	—	2	—	—	—	—	2,661	3
Damietta ...	—	—	25	—	—	—	25	—	—
Port Said ...	14	10	51,393	3	2	—	51,393	11,858	77
Ismailia ...	1	—	170	—	—	—	170	153	—
Suez ...	—	—	—	—	—	—	—	—	—
Frontier Districts ...	—	—	—	—	—	—	—	—	—
Behera...	—	—	—	—	—	—	—	—	—
Gharbia ...	—	—	—	—	—	—	—	6,638	17
Menoufia ...	—	—	—	—	—	—	—	—	—
Dakahlia ...	—	—	—	—	—	—	—	—	—
Sharkia ...	—	—	—	—	—	—	—	—	—
Kaliubia ...	—	—	—	—	—	—	—	—	—
Giza ...	—	—	—	—	—	—	—	—	—
Fayoum ...	—	—	29	—	—	—	—	—	—
Beni-Suef ...	—	—	—	—	—	—	—	—	—
Minia ...	—	—	—	—	—	—	—	—	—
Assiut ...	—	—	—	—	—	—	—	—	—
Girga ...	—	—	—	—	—	—	—	—	—
Qena ...	—	—	—	—	—	—	—	—	—
Aswan ...	—	—	2	—	—	—	—	—	—
TOTAL ...	15	10	51,621	3	2	—	51,588	21,310	97

TABLE No. 23.—GOVERNORATES AND PROVINCES VACCINATED AGAINST SMALL-POX IN 1942

Governorate or Province	Population	Beginning of Vaccination	End of Vaccination	No. Vaccinated
Dakahlia	1,308,000	August 1942	April 1943	1,011,744
Menoufia	1,257,000	July 1942	July 1942	1,106,205
Behera... ..	1,156,600	July 1942	May 1943	969,207
Giza	775,300	September 1942	September 1943	81,929
Minia	1,018,200	August 1941	July 1943	372,519
Girga	1,264,900	January 1941	August 1943	272,637
Canal (Port Said)	194,500	August 1942	December 1942	206,331
Sinai	19,000	November 1942	February 1943	63,653
Southern Desert	32,000	September 1942	December 1943	
Western Desert	57,900	December 1942	December 1943	
TOTAL	7,083,400	—	—	4,081,256

TABLE No. 24.—INOCULATION AGAINST TYPHOID IN 1942

Governorate or Province	No. Inoculated Twice			
	By Health Offices	By Private Practitioners	Total	
Cairo	112,724	—	112,724	Local reac. appeared in 62 persons.
Alexandria	84,158	42,544	126,702	
Prisons Department ...	43,290	—	43,290	
E.A. Medical Service ...	21,616	—	21,616	
Damietta	440	—	440	
Port Said	8,134	197	8,331	
Ismailia	772	3,250	4,022	
Suez	22,043	263	2,506	
F.D.A.	2,263	100	2,363	
Behera... ..	6,051	790	6,841	
Gharbia	5,475	36	5,511	
Menoufia	4,473	88	4,561	
Dakahlia	2,935	107	3,042	
Sharkia	1,314	—	1,314	
Kaliubia	1,766	—	1,766	
Giza	4,353	22	4,375	
Fayoum	1,411	11	1,422	
Beni Suef	1,258	—	1,258	
Minia	3,511	285	3,796	
Assiut	2,980	46	3,026	
Girga	1,460	—	1,460	
Qena	1,452	—	1,452	
Aswan	383	—	383	
TOTAL	314,462	47,739	362,201	

TABLE No. 25.—INOCULATION AGAINST DIPHTHERIA BY ANATOXIN IN 1942

Governorate or Province	No. inoculated three times	No. of cases observed after the 3rd inoculation	Complications
Cairo	23,522	71	
Alexandria	9,798	107	
Damietta	1,574	1	
Port-Said	1,904	2	
Ismailia	573	—	
Suez... ..	1,006	—	
Frontier Districts... ..	439	—	
Behera	4,632	—	
Gharbia	11,801	—	
Menoufia... ..	8,598	—	
Dakahlia... ..	2,033	6	
Sharkia	680	—	
Kaliubia... ..	2,822	—	
Giza... ..	2,823	—	
Fayoum	3,806	—	
Beni-Suef	1,345	—	
Minia	3,924	—	
Assiut	2,948	—	
Girga	2,582	—	
Qena	1,657	—	
Aswan	747	—	
	89,214	187	

TABLE No. 26.—STATISTICS OF FEVER HOSPITALS IN 1942

Name of the Fever Hospital	Admitted			Cured			Improved			Died		
	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total
Alexandria...	9,531	3,778	13,309	7,259	2,876	10,135	1,558	605	2,163	578	255	833
Abbassia ...	7,792	8,197	15,989	6,648	7,458	14,106	—	—	—	1,103	732	1,835
Port-Said ...	1,038	255	1,293	915	212	1,127	48	14	62	66	29	95
Suez	1,191	249	1,440	874	185	1,059	185	7	192	125	54	179
Damietta ...	291	159	450	246	128	374	1	1	2	42	30	72
Damanhour ...	1,068	849	1,917	924	745	1,639	—	—	—	144	34	278
Mansura ...	1,516	1,435	2,951	1,302	1,263	2,565	—	—	—	194	148	342
Mit Ghamr... ,	882	671	1,553	556	230	786	—	—	—	109	98	207
Tanta	1,977	1,644	3,621	1,962	1,305	3,267	—	—	—	191	129	320
Zifta	446	323	769	413	274	687	—	—	—	32	39	71
Fakous	274	252	526	228	214	442	—	—	—	43	34	77
Shebin El Kom	952	666	1,618	790	579	1,369	10	5	15	136	78	214
Zagazig ...	1,717	1,036	2,753	1,535	908	2,443	—	—	—	151	101	252
Beni Suef ...	291	260	551	606	228	834	3	2	5	91	33	124
Minia	411	211	622	347	194	541	5	2	7	50	14	64
Assiut	867	228	1,095	808	199	1,007	—	—	—	59	29	88
Sohag	391	217	608	317	192	509	24	6	30	50	18	68
Qena	312	110	422	237	89	326	26	8	34	44	14	58
Luxor	502	101	603	447	82	529	10	3	13	30	15	45
TOTAL ...	31,849	20,641	52,490	26,414	17,331	43,745	1,870	653	2,523	3,238	1,984	5,222

No. of Hospitals 19 — Fever Hospital, Alexandria, included.
 No. of V. Shelters 15.
 No. of Cordons 28.

Chapter III.—INDUSTRIAL HYGIENE

An Industrial Hygiene Section has been created by Ministerial Arrêté dated July 21, 1942, and charged with the Control of Unhealthy Establishments and Labour hygiene.

UNHEALTHY, INCONVENIENT AND DANGEROUS ESTABLISHMENTS

A.—*Applications for New Permits.*

212 applications for permits for new unhealthy establishments of the First Class were received during the year as compared with 136 in 1941 ; and 9 applications for permits for new general and cattle markets as compared with 12 in 1941. The above figures do not include applications for permits in the provinces of Dakahlia, Gharbia, Behera and Menufia and Damietta Governorate, as these are still being dealt with by the Committee convened in the Labour Department to facilitate procedure of issuing these permits.

B.—*Licensed Establishments actually Working.*

During 1942, the total number of the three classes of unhealthy establishments licensed in all provinces and governorates (Alexandria excluded) was 66,922 as against 74,572 in 1941.

C.—*Ministrial Arrêtés.*

Conforming with the ruling given by the Contentieux, 14 Ministrial Arrêtés were issued during the year imposing new conditions for the improvement of the sanitary conditions of licensed establishments.

D.—*Amendment of Designation in Schedule of Unhealthy Establishments.*

By Ministrial Arrêté dated March 17, 1942, the title " Timber depots for commercial purposes or owned by building contractors " in Class II Category A. of the Schedule has been amended to read : " Timber Depots for commercial purposes or owned by building contractors and upholstery depots containing over 100 beams, 100 poles and 25 wooden benches. "

Chapter IV.—FOOD CONTROL

Introduction.

The number of samples taken from the various foodstuffs, including milk and its products, all over the country (except Cairo and Alexandria Governorates which issue special reports) amounted to 60,969 as against 67,207 samples taken in 1941.

The decrease in the number of samples taken this year is attributed to the scarcity of foodstuffs on sale, especially those imported from abroad, owing to present war time conditions.

Condemnation of Foodstuffs Unfit for Human Consumption.

The following table gives the quantities of foodstuffs and drinks condemned during this year and the previous two years:—

TABLE No. 27

	1942	1941	1940
Okes	196,860	155,734	136,923
No. of Units... ..	106,790	184,014	27,754
Bottles.	12,658	7,947	5,906
Tins	25,031	24,766	62,860

The increase in foodstuffs and drinks condemned in okes, bottles and tins is due to the fact that great quantities of fruits, vegetables and prepared foods, flour, bread, aerated water and non-alcoholic drinks were not destroyed by dealers on becoming unfit for consumption because of the general rise in prices.

Proportion of Deteriorated and Adulterated Samples taken for Analysis.

Great attention is paid to the control of foodstuffs which are much adulterated such as oils, butter, masli and flour. Of the total samples taken this year for analysis, 2·9 per cent were adulterated and 3 per cent deteriorated as against 3·9 and 3·2 per cent respectively last year. The highest ratio of adulteration in oils was in lettuce oil (16·1 %), linseed oil (6·5 %) and olive oil (4·4 %).

3·6 % of the samples of flour were adulterated as against 7·2 per cent last year. This is due to the application of martial law this year which provided severe penalties for the adulteration of flour. The ratio of adulteration in curdled milk was 15·7 per cent and in cheese 6·3 per cent.

The highest ratio of deterioration was in fish namely 42·8 per cent, followed by aerated water which was 17 per cent. In sunflower oil, this was 15·6 per cent, and in canned vegetables and fruits it was 11·7 per cent.

Control of Milk.

Special attention is paid to the control of milk. The number of milk samples taken this year was 24,825 as against 25,055 last year and 26,095 in 1940. 7·5 per cent of the samples taken were found adulterated as against 6·6 per cent last year.

Application of Itinerant Vendors and Milk Regulations and Law No. 48, 1941.

The provisions of the itinerant vendors and milk regulations are strictly applied in towns where these are in force. The provisions of Law No. 48, 1941, dealing with fraud and adulteration are also vigorously enforced.

The following contraventions were drawn up:—

10,779 contraventions against itinerant vendors for violating the regulations.

2,829 contraventions for offences against Law No. 48 of 1941.

5,452 contraventions against milk vendors for violating the regulations (*see Table No. 31*).

The following licences were issued to itinerant and milk vendors:—

Number of licences issued to itinerant vendors 843

Number of licences issued to milk vendors 371

Control of Foodstuffs Imported from Abroad.

Tables No. 33 and 34 give details of the work done in connection with the control of foodstuffs imported from abroad.

According to table No. 33, 11,029 consignments were examined during this year as against 13,724 last year. Of 690 samples taken from these consignments, 249 samples were deteriorated and 8 adulterated, or 36 per cent of the former and 1·15 per cent of the latter.

Despite the decreased number of consignments imported this year as a result of present importation difficulties, the quantities of foodstuffs destroyed or refused entry into the country on account of unfitness for human consumption were in all more than three times those of last year. A total of 819,580 kgs. of foodstuffs were destroyed or refused entry during the year as against 267,318 kgs. last year and 245,710 kgs. in 1940. This is mainly due to shipping difficulties causing the late arrival of consignments at their destination, the importation of foodstuffs of inferior quality or badly prepared owing to present high prices of materials.

Table No. 34 demonstrates the efforts exercised in the control of imported foodstuffs with a view to preventing the entry into the country of deteriorated foodstuffs.

Outbreaks of Food Poisoning.

13 major outbreaks of food poisoning were recorded during the year. (*Vide Table No. 35*).

Considering that most of these outbreaks were caused by eating cheese which was proved by analysis to contain streptococcus microbes, experiments were carried out to determine the effect of salt in cheese on the life of these microbes.

The following are the findings:—

TABLE No. 28

No. of Sample	Percentage of salting	Temperature	Results after					
			1 month	1½ Months	2 Months	3 Months	4 Months	5 Months
	%							
1	8	Temperature of the room	—	—	—	—	—	—
2	10	— do —	—	—	—	—	—	—
3	12	— do —	+	—	—	—	—	—
4	15	— do —	+	+	—	—	—	—
5	8	Refrigerator	+	+	—	—	—	—
6	10	— do —	+	+	+	+	+	—
7	12	— do —	+	+	+	+	+	+
8	15	— do —	+	+	+	+	+	+

This indicates that :—

(1) The streptococcus microbes in cheese die sooner when stored under the normal temperature of the room than when stored in a refrigerator.

(2) Increasing the salt content in cheese from 8 per cent to 15 per cent tends to lengthen the life of the streptococcus microbes whether the cheese is stored under the normal temperature of the room or in a refrigerator.

Legislation.

1.—*Itinerant Vendors Project-Law.*

This project-law is still in the House of Deputies.

2.—*Milk Project-Law.*

The milk project-law has been revised by the Ministry and put in decree form and is in the course of publication.

3.—*Project Decree Governing Manufacture and Trade in Flour and Bread.*

The Permanent Consultative Food Board has completed revision of this project decree. Several provisions dealing with starch, yeast and baking powder have been added.

4.—*Decree concerning Colouring Matters Permissible in Foodstuffs.*

As directed by the Contentieux, the project regulations governing colouring matters permissible in foodstuffs has been revised and put into decree form to be issued under provisions of articles 5 and 6 of law 48, 1941, prohibiting fraud and adulteration.

5.—*Project Decree governing Meat and its Products.*

A project-law governing meat and its products and importation thereof has been prepared and submitted to the Permanent Consultative Food Board for consideration.

6.—*Project-Law governing Food Receptacles.*

A project decree governing receptacles used in the preparation, storage, sale or handling of foodstuffs has been drawn up and submitted to the Permanent Consultative Food Board for consideration.

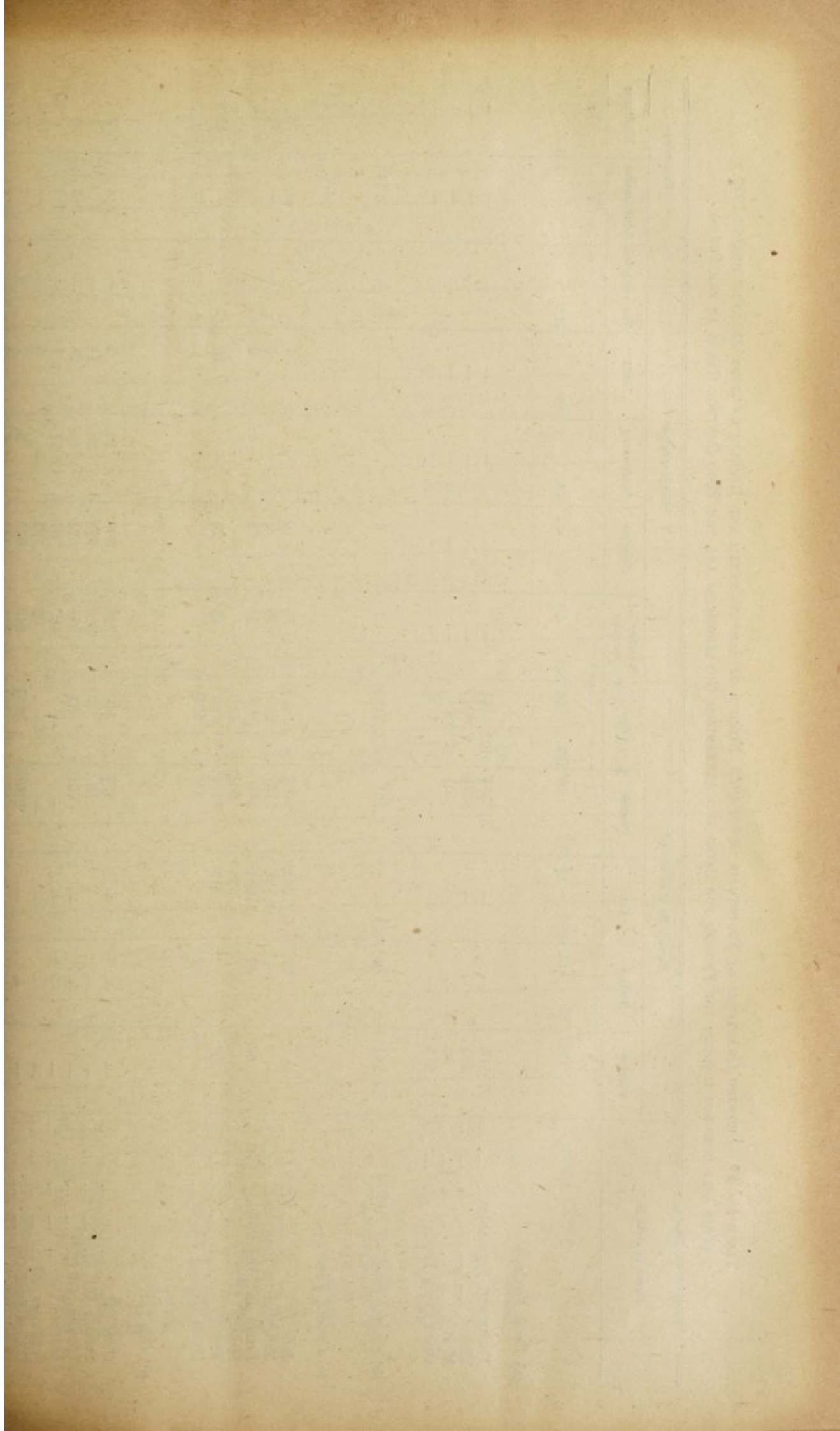


TABLE NO. 29.—SHOWING QUANTITIES OF FOODSTUFFS CONDEMNED, NUMBER OF SAMPLES TAKEN AND RESULTS OF THEIR ANALYSIS DURING 1942.
(THIS LIST DOES NOT INCLUDE THE FIGURES FOR CAIRO AND ALEXANDRIA GOVERNORATES AND THE FOOD CONTROL GANGS AT THE PORTS).

Name of Article	Foodstuffs Condemned					Samples taken						Percentage	
	Number	Bottles	Cans	Pounds	Okes	Number of Samples	Genuine	Adulterated	Unfit	Not analysed	Adulteration	Unfitness	
													%
(a) Fresh Foods :—													
Fruits and Vegetables...	67,518	—	—	8,355½	162,144½	—	—	—	—	—	—	—	
Fish	288	—	—	862½	7,804½	—	—	—	—	—	—	—	
Meat	80	—	—	28½	2,599¾	—	—	—	—	—	—	—	
Other Fresh Foods	615	—	—	—	372½	—	—	—	—	—	—	—	
(b) Cooked Foods													
...	24,334	40	—	1,201	4,548½	7	6	1	—	—	14	—	
(c) Canned Foods :—													
Jam	—	71	286	208¾	181½	11	10	—	1	—	—	9	
Milk and its Products...	—	—	4,834	15	292	10	7	—	3	—	—	30	
Fruits and Vegetables...	69	49	4,952	441	1,898	42	33	4	5	—	—	—	
Meat	—	—	628	88½	421½	—	—	—	—	—	—	—	
Fish	137	—	7,416	541½	1,205	42	24	—	18	—	—	42.8	
Other Canned Foods	—	92	—	62	524	—	—	—	—	—	—	—	
(d) Oils :—													
Olive Oil...	—	—	—	18½	140	223	206	10	7	—	4.4	3.1	
Sesame Oil	—	—	—	18	7	920	878	28	14	—	3	1.5	
Linseed Oil	—	—	—	85.5	53	698	624	46	28	—	6.5	4	
Lettuce Oil	—	—	—	—	—	105	87	17	1	—	16.1	0.95	
Safflower Oil	—	—	—	—	—	32	27	—	5	—	—	15.6	
Cotton-Seed Oil	—	—	—	510.5	166½	645	635	3	7	—	4	1	
Other Oils	—	—	—	19	20½	175	167	6	2	—	3.4	1.1	

(e) Different Foods :—

Flour	31	—	36	—	—	833.2	2,880	2,760	105	15	—	3.6	0.5
Flour Products	8,000	—	1,460	—	—	1,587	2,503	2,432	59	12	—	2.3	0.4
Sweets and Chocolates	2,833	—	332	—	—	1,253.5	590	584	5	1	—	0.8	0.17
Sugar	491	—	—	—	—	87½	217	211	6	—	—	2.7	—
Milk	—	—	—	—	—	48	—	—	—	—	—	—	—
Curdled Milk	141	—	—	—	—	291	1,002	844	158	—	—	15.7	—
Butter	219	—	—	—	—	38	4,442	4,009	118	—	—	2.6	—
Cream	—	—	—	—	—	2½	52	52	—	315	—	—	7
Cheese	271	—	—	—	—	7½	760	702	—	—	—	—	—
Masli	—	—	—	—	3	40	4,331	3,989	48	10	—	6.3	1.3
Margarine	—	—	—	—	—	783½	283	260	100	242	—	2.3	5.6
Halawa Tahinia	—	—	—	—	—	210	1,264	1,228	4	19	—	1.4	6.7
Tea	—	—	263	—	—	—	4,139	4,117	31	5	—	2.4	0.4
Coffee	—	—	245	—	—	3	5,889	5,740	18	4	—	0.4	0.09
Cocoa	—	—	5	—	—	12	76	76	102	47	—	1.7	0.7
Vinegar	—	—	121	—	—	—	253	2.8	—	—	—	—	—
Aerated Water	322	—	—	—	—	4	1,525	1,245	25	—	—	9.8	—
Alcoholic Liquors	219	—	4,435	—	—	—	634	559	16	264	—	1	17
Non-alcoholic Drinks	189	—	—	—	—	1,737½	140	126	13	62	—	2	9.7
Cereals and Corn	—	—	—	—	—	98½	56	51	—	14	—	—	10
Nuts, Almonds, etc.	—	—	—	—	—	436½	13	13	—	5	—	—	8.9
Spices	—	—	—	—	—	323½	1,515	1,415	100	—	—	6.6	—
Other Kinds	773	—	14	—	—	469	449	408	31	10	—	7	2.2
Ice Cream	200	—	—	—	—	439	77	75	1	1	—	1.3	1.3
Tehina	—	—	—	—	—	6	98	89	7	2	—	7.1	2
Honey	—	—	—	—	—	132	46	43	3	—	—	6.5	—
GRAND TOTAL	106,790	12,658½	25,031	16,359	190,971	36,144	33,960	1,065	1,119	2.9	3		
					196,860 Okes								

TABLE No. 30.—SHOWING THE NUMBER OF MILK SAMPLES AND THE RESULTS OF ANALYSIS IN 1942

Number of Samples	Samples arrived at the Labs. Coagulated	Genuine	Adulterated by the removal of fat	Adulterated by the addition of water	Adulterated by the removal of fat and addition of water
24,825	19	22,8	954	889	68

Percentage of Adulteration 7.5%.

TABLE No. 31.—SHOWING THE NUMBER OF P.V. OF CONTRAVENTIONS DRAWN UP AGAINST ITINERANT AND MILK VENDORS IN 1942

1. Number of P.V. of Contraventions drawn up under Arrêté of the Ministry of Interior, 1915 (against itinerant vendors)	10,779
2. Number of P.V. of Contraventions drawn up under Law Number 48, 1941 (against itinerant vendors)	2,829
3. Number of P.V. of Contraventions drawn up under Arrêté of the Ministry of Interior, 1925 (against milk vendors)	5,452

TABLE No. 32.—SHOWING LICENCES ISSUED DURING THE YEAR 1942

1. Number of Itinerant Vendors Licensed	843
2. Number of Milk Vendors Licensed	371

TABLE No. 33.—SHOWING WORK DONE BY THE FOOD CONTROL GANGS AT ALEXANDRIA, PORT SAID, SUEZ AND DAMIETTA PORTS, AND CAIRO DURING 1942.

Gang	Consignments examined	Samples taken	Results of Analysis			
			Genuine	Deteriorated	Adulterated	Not examined
Cairo	1,744	130	74	54	—	2
Alexandria	4,012	305	186	117	2	—
Suez	2,030	132	83	45	4	—
Port Said	3,236	121	86	33	2	—
Damietta	7	2	2	—	—	—
TOTAL	11,029	690	431	249	8	2

Percentage of Deterioration 36%

„ of Adulteration 1.15%

TABLE NO. 34.—FOODS CONDEMNED OR REFUSED ENTRY INTO THE COUNTRY
DURING 1942 BY THE FOOD CONTROL GANGS AT PORT SAID, SUEZ, DAMIETTA
PORTS AND CAIRO BEING UNFIT FOR HUMAN CONSUMPTION

	Kilos	Cans	Units
<i>Fresh Foods:—</i>			
Vegetables	29,150	148	3,840 units and 2½ bags
Fruits	138,040	—	249 units
Meats	1,522	122	—
<i>Preserved and Canned Foods:—</i>			
Jams and Dried Fruits	32,743	8,981	12 bottles and 34 boxes
Milk and its Products	991	218	—
Meats	13	6,070	—
Fish	—	971,223	—
Vegetables and Sauces	—	5,557	70 boxes and 10 barrels of pickles
<i>Oils:—</i>			
Olive Oil	12,296	—	6 barrels
Other Oils	182	—	—
<i>Other Foods:—</i>			
Flour	3,055	—	5,555 bags (80 okes each)
Flour contaminated with dust (sweepings)	6,780	6	—
Flour Products	745	21	6 units and 2 boxes
Sweets and Chocolate... ..	838	3	1 parcel
Sugar	446	—	—
Red Holland Cheese	33	—	—
White Cheese	71	77	—
Butter	3	46	—
Fats and Margarine	530	377	2 units and 40 boxes
Tea	12,542	—	3 boxes
Coffee	27,271	—	6 parcels and 150 bags
Beer	—	10,119	—
Alcoholic Drinks	—	39,750	38 bottles
Milk Powder... ..	—	4	—
Cereals	434,634	—	1,348
Almonds and Nuts, etc.	117,612	—	—
Glucose	83	—	5 bottles
Caviar	—	—	1 parcel
Other Foods	—	—	2 parcels, 200 bags cocoa berries, 29 bags carob sweepings and 2 boxes artificial essence.
TOTAL	819,580	1,042,722	—

TABLE NO. 35.—SHOWING OUTBREAKS OF FOOD POISONING DURING 1942

Serial No.	Date	Town	Markaz	Province or Governorate	Food Causing Poisoning	No. of victims	No. of those who developed Symptoms	No. of Deaths
1	7-5-1942	Chest Diseases Hospital ...	Mansura ...	Dakahlia ...	White Cheese and Boiled Eggs	12	12	—
2-8	14 and 26-5-1942	Tema ...	Tema ...	Girga ...	White Cheese ...	23	23	—
9	8-7-1942	Abul Reesh ...	Aswan ...	Aswan ...	Camel Meat...	Not exactly known	87	—
10	8-9-1942	El Nekhila ...	Abur Tig ...	Assiut ...	Camel Meat...	27	27	4
11	26-10-1942	Colosna ...	Samaloot ...	Minia ...	Camel Meat...	20	20	3
12	10-11-1942	Alfant ...	Samaloot ...	Minia ...	Camel Meat...	23	23	2
13	19-11-1942	El Khairia ...	Mansura ...	Dakahlia ...	Okra, oil, salt and tomatoes without meat ...	6	6	4

Chapter V. HEALTH INSPECTORATES

The Inspectorates Section has pursued its activities in raising the standard of public health in the country. All of the three Divisional Health Inspectors have continued to carry out regular inspections of the various units throughout Upper and Lower Egypt with a view to advising and instructing the officials and employées in the best methods of carrying their official duties in an efficient manner.

At the same time, all complaints received by the Ministry were passed to the respective Inspectors for investigation and report. As a consequence, the work is now running more smoothly.

Medico-Legal Work

During the year, 36,682 accidental cases and 85,682 criminal cases were examined by the medical officers of the Ministry throughout the country as against 33,455 accidental and 82,442 criminal cases in the previous year.

Chapter VI.—HEALTH PROPAGANDA

Motor cars, the only means of carrying on rural propaganda among villagers, were fewer in number, as a result of prevailing war time conditions.

Nevertheless, the Ministry succeeded in introducing new items and new procedures, and in extending health education to certain classes of the community who were formerly beyond reach.

The following is a summary of the propaganda activities:—

(1) Each Propaganda Unit in the Country is to give simple lectures to nine Compulsory Schools at a time, for a period of three months; then it moves to another nine schools for the same period, and so on.

(2) Propaganda against infectious diseases is most successful when carried out shortly before epidemic seasons. Accordingly, the Ministry planned several campaigns against Typhus, Typhoid, Purulent Ophthalmia and Diphtheria, each of a week's duration.

Lice and flies, as vectors of disease, were allotted a special widespread campaign; the different ways and means through which these dangerous insects spread many a disease, were explained in a practical way. The public was shown how to get rid of lice and flies.

(3) Motor cars equipped with gramophones and loudspeakers visited the different quarters of Cairo and the principal cities. Day-time lectures were delivered in colloquial Arabic to an ever increasing audience.

(4) Posters, attractive and instructive, on various subjects of importance were designed and will soon be distributed.

(5) At the request of the Alexandria Municipality Health Division, a campaign against Typhus and Typhoid was waged, resulting in a reduction of infections to a minimum, and a better understanding on the part of the inhabitants of the preventive measures.

(6) Public Meetings, with the aid of Cinema films, were held for the benefit of the workers of the Ramleh Tram, Alexandria. Monotony was dissipated by the demonstration of interesting films dealing with other than health matters.

(7) Films touching on light items of general culture, were added to the program of meetings in public parks in which only health films were demonstrated last year.

(8) The principles of hygiene and practical preventive measures have continued to be incorporated in tales and plays which proved popular among villagers and pupils of compulsory schools.

Last year's program was continued, the following in particular:—

(1) Public parks meetings, in Cairo and suburbs, were regularly held during summer.

(2) Cinema health shows were presented to workers and labourers of certain corporations.

(3) Theatrical representations dealing with health problems have met with unprecedented success. The plays are most appealing to the public and the health instructions and advice contained therein are well absorbed and not easily forgotten.

(4) Lectures to the Police and Army forces were continued.

(5) Instructive health meetings, aided by cinema films, for the benefit of pupils and students of primary and secondary schools were provided.

(6) Broadcasts were continued, with special attention to psychological subjects personal hygiene and physical culture, proportionate to their effect on Public Health.

Health education was also extended to Cairo orphans resident in both government and private institutions. Special performances dealing with elementary principles of hygiene were presented at these institutions as well as to Cairo Scouts and Fouad Sanatorium, Helwan.

Propaganda units participated in the prophylactic sanitary measures taken to safeguard refugees arriving from areas vulnerable to air raids. Medical Officers of these units also cooperated in anti-epidemic campaigns, typhus and malaria in particular. A decrease in the medical work of these units was observed in consequence but this was compensated by gains in training and experience in propaganda work.

Herebelow are some observations made during the year:—

(1) Pupils of Compulsory and Primary Schools prefer health education given in the form of tales particularly if these touch on current affairs in their environment. If delivered in the form of classical lectures, these are apt to produce monotony.

(2) Meetings held in villages are best attended when accompanied by the playing of gramophone records or singing transmitted by loudspeakers in propaganda vehicles.

(3) Students of secondary and intermediate schools prefer ordinary classical lecture which best suit their standard of education, provided the lectures do not last more than half an hour.

(4) The public with their fair standard of education, prefer plays and sketches which stir the interest by their comic features irrespective of their duration.

(5) The well educated classes, however, *e.g.* university students, members of clubs, societies, etc., prefer classical lectures which should contain new data.

TABLE No. 36. —GIVING DETAILS OF PROPAGANDA WORK DURING THE YEAR

	Number	Attendance
1. Broadcasts	18	—
2. Meetings in Public Parks	145	250,000
3. Meetings during Mowleds	20	60,000
4. Special Events and Meetings	35	17,000
5. School Events	30	10,000
6. Lectures in Orphanages	60	17,590
7. „ in Al Azhar	7	2,000
8. „ for the Army	4	1,500
9. „ for Territorials	4	1,050
10. „ for Police	4	1,200
11. „ for Workmen	10	3,200
12. Day-time Propaganda meetings in Cairo	185	80,000
13. Cinema shows	50	25,000
14. Day-time Propaganda in Alexandria	110	45,000
15. Cinema shows in Alexandria	30	12,000
16. Propaganda Afternoon Meetings in Alexandria	78	20,000
17. Posters distributed	6,000	—
18. Plays produced and acted	4	3,000
19. Propaganda meetings in U.S. Army	1	300
20. Special meetings in cooperation with English Language Societies in Secondary Schools	20	8,000
21. Meetings in E.S.R. Workshops	4	4,800

TABLE No. 37.—GIVING DETAILS OF PROPAGANDA WORK CARRIED OUT DURING THE YEAR

	Number	Attendance
1. Number of Villages visited by Provincial Units	451	250,000
2. „ „ houses visited by Provincial Units	6,591	
3. „ „ patients treated by Provincial Units	66,692	
4. „ „ persons vaccinated against Typhoid	15,311	
5. „ „ persons vaccinated against Diphtheria	9,191	
6. Sanitary Nuisances Inspected	3,374	
7. Schools visited for propaganda purposes	434	
8. Evening Cinema Meetings	1,899	
9. Day-time propaganda rounds in quarters of cities	3,060	
10. Audience at evening meetings	1,643,530	
11. „ „ day-time rounds	164,156	

Part II.—QUARANTINE

Chapter VII.—REPORT OF THE DIRECTOR-GENERAL, QUARANTINE ADMINISTRATION

HEALTH SITUATION IN THE PORTS

TABLE No. 38.—SHOWING THE NUMBER OF CASES OF INFECTIOUS DISEASES
NOTIFIED IN THE PORTS DURING THE YEAR

DISEASE	ALEXANDRIA			PORT-SAID		SUEZ		TOR	KOSSEIR
	C.	D.	Imp.	C.	Imp.	C.	D.	C.	D.

*1.—Diseases for which the International Sanitary Conventions provide the application
of special measures*

Plague	—	—	—	12	1	—	—	—	—
Typhus	512	164	150	57	—	104	24	—	—
Small-pox	—	—	—	—	—	—	—	—	—
Dengue	—	—	—	—	—	—	—	—	—

2.—Other diseases

Cerebro-Spinal Meningitis	36	21	5	—	—	19	8	—	—
Typhoid and paratyphoid fevers	1,515	261	119	24	—	177	24	—	6
Dysentery	356	85	6	27	—	254	23	29	15
Malaria	1,933	11	274	4	—	308	—	16	7
Tuberculosis	1,420	571	32	164	—	—	—	—	—
Tetanus	37	23	8	2	—	3	3	—	—
Scarlet fever	18	—	—	—	—	—	—	—	—
Diphtheria	533	203	24	15	—	36	16	—	—
Measles	134	30	8	14	—	30	4	10	6
Influenza	5,020	10	259	6	—	609	9	9	6
Leprosy	16	—	—	—	—	1	—	—	—
Mumps	336	3	11	3	—	40	3	—	2
Undulant fever	1	—	1	1	—	—	—	—	—
Whooping cough	75	4	—	7	—	3	—	—	—
Erysipelas	335	18	13	5	—	111	9	1	—
Chicken-pox	190	1	4	9	—	13	1	—	3
Puerperal fever	48	12	2	10	13	3	—	—	—
Acute poliomyelitis	3	—	—	—	—	—	—	—	—
Broncho-pneumonia and Bronchitis	1,515	989	18	40	—	216	58	1	—
Encephalitis lethargica	1	1	—	—	—	—	—	—	—
Fever (suspected)	—	—	—	10	—	—	—	—	—

On June 16, as the result of the occurrence of a first case of Plague, Port Said was considered as infected with plague. The last case occurred on November 22. Three cases of bubonic plague were also reported from Kantara (port on the Suez Canal) during the year, the first occurred on July 7th and the last on August 13th. A first case of Plague was also reported at Ismailia (port on the Suez Canal) on December 24, 1912.

1.—INSPECTION OF VESSELS, PASSENGERS, DISEASES LANDED FROM VESSELS

As provided for in Article 48 of the Quarantine Regulations, all vessels arriving at Egyptian Ports must — before communicating with the shore — be medically inspected.

Special attention was paid to arrivals from places against which quarantine restrictions are in force.

During the year, a certain number of localities were added to the list of places of this category, viz.:

- June 9 a decision was taken to apply quarantine restrictions to arrivals from Kenya by air routes on account of Yellow fever;
- Oct. 10 quarantine restrictions against smallpox were enforced on arrivals from Syria and Lebanon;
- Nov. 15 quarantine restrictions against plague were enforced on arrivals by all routes from Haifa.
- 26 quarantine restrictions against Yellow fever on arrivals from the Anglo-Egyptian Sudan, whole territory, were cancelled and restricted to the territory lying south of 15° northern latitude.

Vessels coming from any of the infected localities are subjected to detailed medical inspection; this is followed up by surveillance of passengers at their place of destination in Egypt for periods varying according to the incubation period of the disease.

The following table No. 39 gives the details of the vessels dealt with in 1942:—

TABLE NO. 39.—SIMPLE MEDICAL INSPECTION

Port of	Postal	Cargo	Tanker	Warship	Sailing vessels	Various	Total
Alexandria	32	582	135	—	78	49	876*
Port-Said	121	1,392	184	—	3,007	—	4,704
Suez	38	780	172	81	153	143	1,367
El Tor	40†	—	—	—	162	21	223
Kosseir	—	36	—	—	151	2	189
Damietta	—	—	—	—	40	—	48
Rosetta	—	—	—	—	21	—	21
Hurghada	—	—	—	—	21	—	21
Abuqir	—	—	—	—	22	—	22
Shellal	53	60	—	—	—	130	243
Aswan Dam	—	232	—	—	—	—	232

DETAILED MEDICAL INSPECTION

Alexandria	—	—	—	—	—	—	280*
Port-Said	38	297	82	—	117	—	534
Suez	89	739	153	38	154	104	1,207
El Tor†	10	—	—	—	2	—	12

(*) The number included 280 vessels submitted to detailed medical inspection. (†) Including 3 pilgrim ships.
(‡) Including 8 pilgrim ships.

N.B.—The work at Mersa Matrouh, Sollum and Sidi Barrani was suspended.

Ships transiting the Suez Canal may, under certain conditions specified in the Quarantine Regulations, be exempted from the quarantine inspection after they have already been visited at Port-Said or Suez.

The vessels thus exempted were:—

Suez: 29 vessels coming from Port-Said.

Port-Said: 97 vessels coming from Suez.

The following table No. 40 shows the cases of diseases landed from vessels for treatment:—

TABLE No. 40

Disease	Alexandria	Port-Said	Suez
Total number of cases ...	467	44	201
<i>Infectious cases:—</i>			
Smallpox	—	—	1
Mumps	—	—	103
Dysentery	7	—	5
Measles	—	—	3
Chicken-pox	—	1	11
Typhoid and Paratyphoid ...	—	2	2
Malaria	2	1	12
Erysipelas	1	—	—
Pneumonia	1	1	—
Tuberculosis	3	8	15
Bronchitis	—	—	—
Influenza	7	3	46
Diphtheria	1	1	—
Cerebro-spinal Fever	—	—	3
Suspected Fever	6	3	—
<i>Surgical cases</i>	126	—	—
<i>Medical diseases</i>	240	21	—
<i>Veneral diseases</i>	41	1	—
<i>Skin diseases</i>	9	2	—
<i>Mental diseases</i>	12	—	—
<i>Ophthalmic diseases</i>	11	—	—

TABLE No. 41.—CONTROL OF PASSENGERS

	I and II Class	III and IV Class	Total
LANDING			
Alexandria	51	3	54
Port-Said	738	4,299	5,037
Suez... ..	1,030	2,383	3,413
Tor	—	pilgrims	5,972
EMBARKING			
Alexandria	—	15	15
Port-Said	114	108	222
Suez	1,234	979	2,213
Tor	—	pilgrims	4,555

2.—CONTROL OF AERIAL NAVIGATION

As the result of the extension of the war to the Mediterranean, the terminal aerodromes and airports of the International air traffic were transferred from Alexandria to Cairo (Rod el Farag and Almaza Aerodromes); Port-Said and Luxor Aerodromes were also used as landing places.

At Luxor, the aeroplanes alight for the purpose of refuelling: in the case of those arriving from the South, special precautions were taken to avoid any contact.

All aircraft coming from the South were disinfected by means of "Pyrocide 20."

The following table gives details of the aircraft dealt with during the year :—

TABLE No. 42

CAIRO :									
Rod el Farag (seaplanes)	...	...	...	...	...	...	...	...	315
Almaza Aerodrome (airplanes)	...	...	...	...	...	...	...	...	1,550
Including :—									
Egyptians	...	...	...	...	...	...	...	...	622
British	...	...	...	...	...	...	...	...	394
American	...	...	...	...	...	...	...	...	232
South African	...	...	...	...	...	...	...	...	247
Belgian	...	...	...	...	...	...	...	...	50
Other Nationalities	...	...	...	...	...	...	...	...	5

The passengers landed and embarked were as follows :—

	Landing	Embarking
CAIRO :		
Almaza Aerodrome: Total	10,442	10,387
Including :—		
Civilians	2,968	3,510
Military	6,602	6,566
Diplomats	184	137
Company Staff	550	133
Other Categories	138	41
Rod el Farag: Total	5,209	
Including :—		
Civilians	1,206	
Military	3,709	
Company Staff	294	

During the year, 489 aircraft were disinsectised at Almaza and 85 insects found ; at Rod el Farag, 121 seaplanes were disinsectised and 27 insects found.

Apart from the disinsectisation of aircraft, a permanent control of mosquito breeding places is carried out in a radius of three kilometres around the aerodromes at Alexandria (aerodrome and seaplane base), Rod el Farag, Almaza, Luxor (aerodrome and seaplane base). The larvæ and adult mosquitoes found are forwarded to Fouad I Research Institute for identification.

TABLE No. 43

	Alexandria	Rod-el-Farag
I.—No. of specimens of larvæ sent for identification	643	27
These include :—		
Aedes Aegypti	415	9
Culex	50	—
Culex pipiens	30	5
Culex peregrinis	2	—
Anophele	20	—
" pharoensis	—	1
Theobaldia	2	3
Aedes Caspius	3	2
Other Larvæ	56	—
Unfit for Examination	20	5
Not identified	45	—
II.—No. of adult mosquitoes sent for identification	95	17
Including insects found on Aircraft	—	11
These include :—		
Aedes Aegypti	24	5
Culex	7	—
Culex Pipiens	22	7
Aedes Caspius	2	2
Anophele	4	—
Culex peregrinis	4	3
Other Larvæ	12	—
Not identified	20	—

3.—CONTROL OF PILGRIMAGE

A.—Outward Movement.

The pilgrim season of year 1360 of the Hegira (1941-1942 A.D.) was opened with the arrival of Palestinian pilgrims in Egypt via Kantara on November 17, 1941.

On that date the usual measures were enforced for the control of the pilgrims arriving in Egypt and vessels transiting the Canal en route for the Hedjaz.

These measures remained in force until the departure of the last pilgrim ship from Suez, on December 23, 1941.

The measures include the vaccination of all foreign pilgrims proceeding to the Hedjaz against cholera and smallpox. All pilgrims were found vaccinated except one Palestinian who received the second dose of anticholera vaccine at Kantara.

In 1942, all foreigners who transited Egypt en route for the Hedjaz numbered 943 including Palestinians 841, Transjordanians 53, Syrians 46, Lebanese 3. This number exceeds the number arrived last year by 391.

The transport of Egyptian pilgrims was assured by the Misr Shipping Company which allocated three vessels, viz. the S.S. Taif, Talodi and Rizwani for this transport. These three ships transported all the pilgrims from Suez in six trips between December 2 and December 23. The number of pilgrims who embarked at Suez were :—

Egyptians	3,302
Palestinians	859
Transjordanians	46
Hedjazians	23
Syrians	40
Other Nationalities	11
TOTAL	4,281

B.—Homeward Movement

Yom Arafat coincided with December 27, 1941.

The first pilgrim ship arrived at El Tor on January 11, 1942, and the last one left Tor on February 12. Thus the pilgrim season lasted 33 days.

During that period, 4,558 pilgrims were landed at Tor of which 3,595 Egyptians and 963 foreigners.

No vessel carrying foreigners transited the Canal in quarantine under Article 142 of the Convention.

The pilgrims landed at Tor numbered 4,558 as compared with 2,469 for the preceding pilgrim season. These include :—

Egyptians 3,595, Palestinians 879, Syrians 35, Transjordanians 25.

All these pilgrims passed the statutory period in the lazaret.

59 patients, including 37 pilgrims and 22 from officers and labourers of the camp, were admitted to the hospitals, 23 were medical and 14 surgical cases. 3 deaths in the camp were reported, 1 on account of uraemia, 1 heart failure and 1 hemiplegia and cerebral hæmorrhage.

No case of quarantinable disease was isolated.

In the laboratory of Tor, 1,584 samples of stools were examined, including 135 specimens taken from members of ships' crews. The bacteriological examination revealed the presence of 36 vibrios, of these 35 agglutinating and 1 non agglutinating and hæmolytic (*Vibrio* El Tor).

Tor camp was closed on February 24, and Moses Wells camp opened for the reception of pilgrims, who numbered 27, i.e. 22 Egyptians and 5 foreigners.

4.—ANTIPLAGUE WORK

The trapping and laboratory examination of rats captured has been a routine procedure in the ports of Alexandria, Port-Said and Suez for some years. In addition, a Commission exists in each of the three ports the duty of which consists of the control of the measures taken to render gradually rat proof all houses, shops, yards, stores, existing in the port area.

TABLE NO. 44.—NUMBER OF RATS CAUGHT, DESTROYED AND EXAMINED IN THE PORTS

		Alexandria	Port-Said	Suez
No. and species of rats caught :—				
R.N.	Town	1,057	6,438	411
	Port Area	102	148	416
R.R.	Town	548	8	—
	Port Area	476	117	56
A. Cahirinus	Town	21	—	20
	Port Area	1	—	82
Rats killed or found dead		603	270	—
Plague Infected Rats		—	1	—
Mice caught :	Town	967	232	—
	Port Area	65	1	—

TABLE No. 45.—FLEAS FOUND ON RATS CAUGHT

	Town		Port		Total	
	L.M.	X. Ch.	L.M.	X. Ch.	L.M.	X. Ch.
ALEXANDRIA						
R. Norvegicus	1,314	2,105	131	505	1,445	2,610
R. Rattus	1,105	1,018	564	1,225	1,669	2,243
A. Cahirinus	—	—	—	—	—	—
					3,114	4,853
SUEZ						
R. Norvegicus	—	—	—	—	—	—
R. Rattus	—	2	—	13	—	15
A. Cahirinus	—	—	—	—	—	—
					—	15
PORT SAID						
R. Norvegicus	1,888	9,429	92	416	1,980	9,845
R. Rattus	58	71	28	194	86	265
A. Cahirinus	5	—	—	—	5	—
					2,071	9,750

TABLE No. 46.—VESSELS DERATIZED AND DERATIZATION CERTIFICATES ISSUED

Port	Vessels Deratized			Process of Deratization
	Steamers	Sailing and small craft	Total	
Alexandria... ..	22	—	22	Clayton S 02.
Suez	17	—	17	Clayton S 02. for steamers. Dutch ovens for others.
Port-Said	59*	1	60	Clayton S 02. Dutch ovens for sailing.

*Including 42 partial deratizations.

TABLE No. 47.—CERTIFICATES OF EXEMPTION ISSUED TO

Port	Steamers	Sailing vessels and small craft	Total
Alexandria	119	8	127
Suez... ..	94	120	214
Port-Said	74	41	115
Kosseir	—	36	36

TABLE No. 48.—RATS CAUGHT ON VESSELS

ALEXANDRIA :—

No. of rats caught alive : 5 R. Rattus.

No. of rats found dead after fumigation : 27 R. Norvegicus and 576 R. Rattus.

The above rats were caught on 15 vessels.

SUEZ :—

Rats found dead after fumigation : 53, including 28 R. Norvegicus and 25 R. Rattus, plus mice

The above rats were found on 5 vessels.

PORT-SAID :—

No. of rats caught alive : 7 R. Rattus.

No. of rats found dead after fumigation : 31 R. Norvegicus and 240 R. Rattus.

The above rats were caught on 9 vessels.

5.—DISINFECTION

TABLE No. 49

	Alexandria	Port-Said	Suez	Tor
<i>Disinfection by Chemical Means :—</i>				
Steamers disinfected... ..	57	1	5	5
Barges and boats	—	16	2	—
Cabins occupied by sick	—	16	—	—
Anchoring boats	—	628	2	—
Vessels transporting animals	1	—	2	—
<i>Disinfection by Steam under Pressure :—</i>				
Number of stovefulls	—	99	—	—
Effects and clothing :				
Steamers	3	184 kilos 18 parcels	25	380
From pilgrims and crews	—	—	2	2,262
From Customs and Police author. (parcels)	6	315	2	—
		+160 kilos		
From Quarantine Administration (parcels)	—	—	4	307
Zamzam Water (No. of times)	—	—	—	17
Disinfection by means of formol (No. of times)	—	—	—	13
Other disinfections	—	—	1	—

	Alexandria	Port-Said	Suez
<i>Control of water distribution to vessels in the ports :—</i>			
Routine laboratory examination of water supplies to vessels was maintained throughout the year :—			
No. of specimens taken from taps	545	—	357
No. of specimens taken from water boats	118	330	357
Result of bacteriological examination :—			
Fit for use :			
Taps	492	—	—
Water boats	108	286	—
Unfit for use :—			
Taps	53	—	—
Water boats	10	44	—
No. of cisterns and water boats disinfected	51	64	28
Water purified	—	—	27

6.—CONTROL OF SKINS AND ANIMAL PRODUCTS AND DEBRIS

TABLE NO. 50

	ALEXANDRIA		PORT-SAID		SUEZ		TOR	KANTARA
	Import	Export	Import	Export	Import	Transit	Export	Import
	Kilos.	Kilos.	Kilos.	Kilos.	Kilos.	Kilos.	Kilos.	Kilos.
<i>Skins and Hides</i>								
Big animals	165,446	40,000	129,889	500,226	95,215	269,157	1,005	55,215
<i>Number of pieces</i>								
Small animals	100 (fox fur)	—	1	235,210	5,461	—	300	6,037
<i>Kilogrammes</i>								
Wool	265	—	123,348	—	—	364,175	—	16,417
Horns	—	—	350	—	—	—	—	—
Salted guts... ..	740	15,370	3,814	—	—	—	—	2,587
Hair (pig)	14,000	—	700,100	7,880	—	—	—	—
Animal hair	—	791	—	—	—	—	—	132,670
<i>Control of Rags and Used Clothings</i>								
Rags	324,125	1797,824	2,891	6,562	—	—	—	6,320
Old sacks (jute) ...	—	—	—	16,115	—	—	—	—

THE HISTORY OF THE UNITED STATES OF AMERICA

CHAPTER I

Year	Population	Area	Capital
1776	2,500,000	3,500,000	Philadelphia
1780	2,500,000	3,500,000	Philadelphia
1783	2,500,000	3,500,000	Philadelphia
1787	2,500,000	3,500,000	Philadelphia
1790	2,500,000	3,500,000	Philadelphia
1793	2,500,000	3,500,000	Philadelphia
1796	2,500,000	3,500,000	Philadelphia
1799	2,500,000	3,500,000	Philadelphia
1800	2,500,000	3,500,000	Philadelphia

1776
1780
1783
1787
1790
1793
1796
1799
1800

Year	Population	Area	Capital
1803	2,500,000	3,500,000	Philadelphia
1806	2,500,000	3,500,000	Philadelphia
1809	2,500,000	3,500,000	Philadelphia
1812	2,500,000	3,500,000	Philadelphia
1815	2,500,000	3,500,000	Philadelphia
1818	2,500,000	3,500,000	Philadelphia
1821	2,500,000	3,500,000	Philadelphia
1824	2,500,000	3,500,000	Philadelphia
1827	2,500,000	3,500,000	Philadelphia
1830	2,500,000	3,500,000	Philadelphia

1803
1806
1809
1812
1815
1818
1821
1824
1827
1830

Year	Population	Area	Capital
1833	2,500,000	3,500,000	Philadelphia
1836	2,500,000	3,500,000	Philadelphia
1839	2,500,000	3,500,000	Philadelphia
1842	2,500,000	3,500,000	Philadelphia
1845	2,500,000	3,500,000	Philadelphia
1848	2,500,000	3,500,000	Philadelphia
1851	2,500,000	3,500,000	Philadelphia
1854	2,500,000	3,500,000	Philadelphia
1857	2,500,000	3,500,000	Philadelphia
1860	2,500,000	3,500,000	Philadelphia

1833
1836
1839
1842
1845
1848
1851
1854
1857
1860

Part III.—SOCIAL HYGIENE

Chapter VIII.—MATERNITY AND CHILD WELFARE

In the year 1942, Law No. 46 was issued. It aims at improving rural hygiene. Art. 10 provides a Maternity and Child Welfare Centre for every group of population amounting to 15,000. A similar scheme is followed in urban areas. Nineteen Provincial Maternity and Child Welfare Centres were consequently annexed to this Ministry as from May 1, 1942, together with their Midwifery Schools.

In order to raise the technical standard of midwives and health visitors working in welfare centres, a Ministerial Arrêté was issued on November 12, 1942, organizing the curriculum of these schools, the graduates of which will be called "Asst. midwives and health visitors."

Midwives in Practice are required to attend child and maternity welfare centres every four years for a refreshing course. Their permits are renewed for only four years pending their passing a refreshing examination.

Two mobile child welfare centres were opened at Dessouk and Beni Mazar.

A new centre was established at Cairo (Zeitoun District) to serve this remote suburb.

A two-bed room was provided in each Maternity and Child Welfare Centre for cases of difficult or spontaneous labour. Crèches are provided within the proximity of certain child welfare centres and are kept under constant supervision.

Table No. 51 gives statistics of the activities of Maternity and Child Welfare Centres during the year 1942 as compared with those of 1941.

TABLE No. 51

Cases		1941	1942
No. of New pregnant	...	103,988	104,929
" Old pregnant	...	412,382	353,292
" Blood specimens taken for Wasserman examination	...	8,308	85,46
" Positive for Wasserman's Reaction	...	8,546	7,602
" Children attendances at Centres	...	1,529,836	1,355,275
" Circumcision operations	...	4,436	10,450
" Infants vaccinated against small-pox	...	25,591	8,789
" " immunized against diphtheria	...	28,498	26,956
" Confinements undertaken by Midwives	...	24,559	29,381
" " Assistant Midwives	...	56,370	63,311
" " Medical Officers	...	5,080	7,076
" " from without (not previously recorded)	...	18,762	16,806
" Deliveries taking place before arrival of staff	...	16,366	13,712
Total number of confinements	...	121,137	130,286
No. of Expectant mothers removed to hospital	...	3,235	2,740
" Still-births at full term	...	78	790
" " within first 3 months of pregnancy	...	24	85
" " premature infants over 6 months	...	629	387
No. of Maternal mortality due to childbirth	...	36	46
" Infantile mortality, within first month of life	...	758	712
" Medical officers' visits to sick puerperals	...	3,163	2,405
" Midwives' visits to pregnant during the first month	...	45,127	45,262
" " puerperal mothers	...	471,809	498,592
" Other visits	...	49,85	245,314
" Visits by health visitors to pregnant at home	...	39,248	55,946
" " infants at home	...	130,394	12,405
" Cases of eclampsia	...	283	144
" Laceration of perineum	...	462	526
" Cases of puerperal sepsis	...	28	23
" " placenta previa	...	64	161
" Urine samples	...	411,043	313,643
" Post-parturition albuminuria	...	8,24	6,775
" Diabetes before delivery	...	177	179
" Lectures delivered by medical officers	...	4,930	4,820
" " midwives	...	8,736	8,677
" " health visitors on nutrition	...	6,483	5,994
Milk contributions to mother and baby	...	11,519	15,819
Ready-made clothes contributed to mother and baby	...	2,93	2,86
Cloth, per metre, contributed to mother and baby	...	12,607	11,027

FOUNDLINGS HOMES

The following is a statement of Cairo Foundlings Home during the year 1942:—

Children admitted during the year 1942	...	286
" remaining from previous year	...	508
" deaths during the year	...	163
" discharges: adopted	...	33
repatriated	...	72
removed to other homes	...	24
" remaining on December 31, 1942	...	502
" in wards	...	137
" with wet nurses	...	365

Chapter IX.—CHEST DISEASES

TUBERCULOSIS STATISTICS IN EGYPT

According to previous reports, the total number of tuberculous cases recorded by the chest diseases dispensaries up till 1941 was 35,891. During 1942, a further 5,986 were detected, bringing the total number of cases since 1929 when the campaign against tuberculosis was first launched until the end of the current year, to 41,877.

Hereunder are details of the cases discovered during 1942 at each dispensary, tabulated according to their occupation and geographical distribution.

The following table shows the professions of these patients before contracting the disease:—

MERCHANTS 285 (*i.e.* 4.7 %) comprising: 64 food vendors.
16 poultry and cattle merchants.
60 grocers.
36 fruiterers.
109 other trades.

EMPLOYEES 425 (*i.e.* 7.1 %) of whom: 227 Government employees.
93 commercial employees.
30 school teachers.
75 other occupations.

WORKMEN 1,710 (*i.e.* 28.5 %) including:

59 cooks, 60 waiters, 90 barmen, 72 servants, 21 office attendants, 40 gate-keepers, 63 hairdressers, 47 laundry men, 76 drivers, 115 tailors, 104 shoemakers, 117 carpenters, 30 painters, 46 building labourers, 81 company employees, 105 weavers, 114 mechanics, 44 printers, and 426 other workmen.

FARMERS 1,183 (*i.e.* 19.7 %).

STUDENTS 145 (*i.e.* 2.4 %).

UNEMPLOYED 2,238 (*i.e.* 37.4 %) comprising: 1,346 idle at home.
356 children.
536 unemployed.

ANTI-TUBERCULOSIS MEASURES

A.—Social and Preventive Measures

These consist of:—

(1) Examination of contacts to detect and treat early infections. Contacts are advised by doctors and health visitors, both at the dispensaries and in their homes, in how to evade infection by leading a healthy life.

During this year, no less than 7,400 contacts including 3,234 children were examined, amongst whom 322 developed tuberculosis.

(2) Patients who by nature of their work come in contact with the public are dissuaded from pursuing their occupation, and in return, they are provided with food, material for clothes and rent by the dispensaries.

Two Legislations will shortly be published concerning itinerant food vendors and domestic servants including maids, nurses, wet nurses, etc. These provide that members of the two categories will not be authorised to pursue their occupations before they are pronounced free from infectious diseases and tuberculosis.

(3) Grants and Contributions: Provincial Council contributions to local dispensaries which varied from L.E. 100-270 per annum proved insufficient for helping the patients. An appeal to raise these contributions to L.E. 350 was generously answered by some of the Councils who could afford it. On the other hand, the sum of L.E. 1,800 granted by the Government for this purpose was exhausted before the end of the financial year 1941-1942 and a further L.E. 500 were granted to meet the needs of patients until the end of the year. All this, however, proved inadequate in the face of the ever increasing number of patients and their various needs. The Ministry consequently asked that the Government grant be raised to L.E. 10,000 and finally it was possible to obtain L.E. 5,000 which, it is hoped, will allow a more liberal help to be offered to poor patients and their dependents. During the year 1942, about 1,000 families benefited by this scheme to the extent of L.E. 4,946.646. The dispensaries were further able to obtain from charitable societies and individuals various sums which have all been distributed among the most deserving cases.

(4) Whenever possible, patients who are under treatment and sufficiently recoverment their health are offered suitable jobs in the Chest Diseases Units so that they may remain under constant medical supervision.

(5) Special care is taken of the health of students on whom depends the future of the Nation. Whenever they fall victims to the disease, they are given priority for admission to the Sanatoria.

B.—Treatment

(1) Dispensaries.

A new chest diseases dispensary was opened in Qena on April 11, 1942, thus bringing the total number of dispensaries in Egypt to fifteen. Three branch clinics were opened in Menouf (23-8-41), Samallout (14-10-42) and Luxor (6-12-42) in connection with Shebin el Kom, Minia and Qena dispensaries respectively. These branch clinics proved such a success that it is proposed to open more branches to the other dispensaries.

Out of 97,367 new patients consulting the dispensaries during the year, 5,986 were found tuberculous. Of the latter, 284 were children (4.7 %) and 5,702 (95.3 %) were adults. The health visitors paid 24,286 visits and the medical officers 5,131 visits to patients in their homes this year.

Hereunder is the summary of the various treatments given by the dispensaries during the current year and their results:—

TABLE NO. 52.—SHOWS THE RESULTS OF DOMICILIARY TREATMENT OF PATIENTS

		Total Number of patients during 1942
Condition when diagnosed at Dispensary	Total Number of Tuberculous Patients ...	5,604
	Sputum	Positive 4,113
		Negative 1,491
	Extent	Unilateral 1,980
		Bilateral 3,624
	Last Sputum	Positive 3,891
		Negative 1,713
Result of Treatment ...	Increase in weight	1,875
	Decrease in weight	932
	Stationary	1,370
	Died	1,427
Ability to Work	Unable to work	1,241
	Able to work	1,155
	Able to do light work	1,165
	Able to do full work	616

Including 3,027 cavitary lesions.

Total No. of New and Old
Cases (1942)

Artificial Pneumothorax Therapy:—

Inductions	475
Refills	16,411

Condition before treatment:—

Sputum ...	{ positive	1,111	
	{ negative	268	
Extent of lesion ...	{ Unilateral	1,116	} Including 993 cavitary lesion.
	{ Bilateral	263	
Haemoptysis cases		284	
Unilateral pneumothorax		1,285	
Bilateral pneumothorax		94	
Extrapleural pneumothorax		3	
Refills of pneumothorax continued		1,091	

Refills stopped for the following reasons:—

Adhesions	104
Extension to the other side	91
Pleural effusion leading to adhesive pleuritis	95

Results of treatment:—

Sputum ...	{ Still positive	734
	{ „ negative	229
	{ Became negative	392
	{ „ positive	24
Weight ...	{ Increased	822
	{ Decreased	250
	{ Stationary	221
	{ Died	86
Ability to work after treatment	{ Unable to work	278
	{ Able to work	357
	{ „ do light work	407
	{ „ do full work	251

(2) *Sanatoria and Dispensary In-Patient Departments.*

In further pursuance of its policy to relieve congestion in Sanatoria, the Ministry provided two in-patient departments in the dispensaries at Tanta (4-7-42) and Assiut (26-12-42) thus bringing the number to six with an accommodation of 135 beds, besides 882 beds at Helwan and Abbassia Hospitals.

It has been observed that some of the patients forwarded by the dispensaries to the sanatoria for surgical operations cannot afford the travelling expenses. Financial authority has now been obtained to meet such expenditures from Government funds.

Blood transfusion may be deemed essential when major operations are undertaken. Suitable donors, who are selected from the healthy employees of the sanatoria are now granted the sum of one pound for each donation in recognition of their service.

The following table No. 53 gives details of patients admitted to Helwan and Abbassia Sanatoria and to In-patient Departments at Mansoura, Zagazig, Damietta, Fayoum and Tanta Dispensaries.

TABLE No. 53

	Helwan	Abbasia	Mansoura	Zagazig	Damietta	Fayoum	Tanta	
No. of patients on January 1, 1942	424	392	20	8	34	16	—	
„ „ admitted during the year	1,209	869	56	46	125	38	42	
„ „ discharged	1,189	853	56	35	114	35	22	
<i>Details of Discharges</i>								
Condition on admission :—								
(a) Sputum	{ positive	823	516	42	26	90	25	19
	{ negative	366	337	14	9	24	10	3
(b) Extent of lesion	{ Unilateral	550	392	36	23	88	23	19
	{ Bilateral... ..	639	461	20	12	26	12	3
	{ Cavitary	585	216	32	20	79	23	16
(c) Temperature	{ Normal	604	265	34	31	48	4	3
	{ Abnormal	585	588	22	4	66	31	19
<i>Treatment Given</i>								
General Treatment		870	573	30	15	114	35	7
Exercise Treatment		871	280	32	2	62	22	2
Gold Therapy	{ No. of patients	36	22	1	—	—	2	—
	{ No. of injections	403	214	10	—	—	32	—
Tuberculin Therapy	{ No. of patients	—	—	—	—	—	—	—
	{ No. of injections	—	—	—	—	—	—	—
Pneumothorax	{ Inductions	385	317	26	21	74	15	12
Treatment	{ Refills	5,397	4,831	489	750	74	302	3
Extrapleural Pneumothorax		—	—	—	—	—	—	—
Phrenic evulsion or crush		130	42	—	—	—	—	—
Pleurotomy		9	6	—	—	—	—	—
Pleural aspiration		65	66	4	3	—	—	1
Thoracoplasty		—	9	—	—	—	—	—
Adhesiectomy		197	53	—	3	—	—	—
Complications		705	117	—	2	9	—	6
No. of other injections		1,922	3,331	—	150	—	234	—
<i>Cause of Discharge</i>								
On leave but have not returned		50	31	2	1	2	2	4
In accordance	{ Refused treatment	376	36	—	2	2	—	2
with their wish	{ Plausible excuse	140	306	19	18	—	13	9
In accordance with the doctor's wish		497	372	35	13	106	19	7
<i>Condition on Discharge</i>								
(a) Weight	{ Increase	753	465	40	19	96	19	12
	{ Decrease	270	146	8	12	9	10	5
	{ Stationary	166	134	8	4	5	6	5
(b) Temperature	{ Normal	774	522	46	30	82	22	15
	{ Abnormal	415	223	10	5	28	13	7
(c) Sputum	{ Positive	700	388	22	14	67	25	17
	{ Still negative	323	138	14	9	28	2	3
	{ Became negative	136	199	20	12	15	8	2
	{ „ positive	30	20	—	—	—	—	—
Successful pneumothorax		415	292	26	16	56	26	13
Unsuccessful pneumothorax		40	25	6	5	5	2	2
Improved		656	475	40	21	87	24	13
Deteriorated		181	163	8	9	10	4	3
Stationary		226	107	8	4	13	6	6
Dead		126	108	—	1	4	1	—
<i>Ability to work</i>								
Able to Work	{ Fully	36	6	1	—	9	2	4
	{ Partially	615	406	30	22	53	19	6
Unable to Work		412	333	25	12	48	13	12
Average No. of days spent at Sanatoria		150	144	120	120	107	131	82
Stayed for 6 months or longer		397	211	17	9	21	13	—
Stayed less than 6 months		792	642	39	26	93	22	22

(3) *Preventoria.*

There are now four preventoria of which two are in Cairo, the third at Assiut and the fourth was at Alexandria but, owing to air raids, it was transferred to Mehalla el Kobra and started working on August 22, 1942. The number of children admitted to these Institutions during the year was 103 of whom:—

36 were contacts of their fathers.

47 „ „ mothers.

4 „ „ brothers or sisters.

5 „ of other relatives.

These children are under continuous medical care and also receive appropriate education.

(4) *Bone Tuberculosis Sanatoria.*

There are now two of these in operation, a sea-side one at Alexandria and another, inaugurated on January 8, 1942, at Abbassia Chest Diseases Hospital with an accommodation of 50 beds.

During this year, 326 patients were admitted and 279 discharged. 215 received ultra-violet radiation and major operations have been performed on 46. Plaster encasement was applied to 174 of whom 61 were discharged. 482 skiagrams were taken.

TABLE No. 54.—NUMBER OF T.B. POSITIVE CASES NOTIFIED BY THE DISPENSARIES DURING THE YEAR 1942 ACCORDING TO RESIDENCE

Unit	Cairo	Alexandria	Damietta	Port-Said	Canal, Suez and Ismailia	Behera	Gharbia	Menoufia	Dakahlia	Sharkia	Kalubia	Giza	Bent-Suef	Fayoum	Minia	Assiut	Girga	Qena	Aswan	Oases	Total
Boulaq Dispensa	759	6	1	1	2	—	3	22	—	2	43	9	—	—	—	1	—	—	1	—	850
Mobtadayan "	428	10	4	5	12	12	48	25	21	24	48	136	13	8	13	17	7	3	18	—	852
Khalifa "	637	1	—	2	3	7	12	10	8	3	21	20	2	—	4	4	—	1	5	—	740
Mansoura "	1	—	—	—	6	—	128	—	367	4	—	—	—	—	—	—	—	—	—	—	506
Tanta "	—	—	—	—	—	9	274	23	1	—	—	—	—	—	—	—	—	—	—	—	307
Damanhour "	—	—	—	—	—	366	70	—	—	—	—	—	—	—	—	—	—	—	—	—	436
Zagazig "	—	—	—	1	7	—	3	—	46	308	17	—	—	—	—	—	—	—	—	—	382
Mehalla el Kobra "	—	—	—	—	—	—	214	—	—	—	—	—	—	—	—	—	—	—	—	—	214
Alexandria "	—	409	—	—	—	24	3	—	—	—	—	—	—	—	—	—	—	—	—	—	436
Shebin el Kom "	—	—	—	—	—	—	—	165	—	—	—	—	—	—	—	—	—	—	—	—	165
Damietta "	—	—	162	57	—	—	70	—	170	1	—	—	—	—	—	—	—	—	—	—	460
Fayoum "	—	—	—	—	—	—	—	—	—	—	—	—	22	184	—	—	—	—	—	—	206
Assiut "	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	205	16	3	—	—	225
Minia "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	151	9	1	—	—	—	161
Qena "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	42	4	—	46
TOTAL	1,825	426	167	66	30	418	825	245	613	342	129	165	38	192	168	236	24	49	28	—	5,986

TABLE NO. 55.—DEATHS REPORTED TO THE DISPENSARIES DURING 1942 ACCORDING TO AGE

Dispensary	1-5 Years	5-15 Years	15-25 Years	25-35 Years	35-45 Years	Over 45 Years	Total
Boulac	5	97	108	61	26	26	323
Mobtadayan	4	10	54	44	22	11	145
Khalifa	11	31	104	77	41	25	289
Tanta	3	2	16	16	11	2	50
Mansoura	—	5	21	32	14	8	80
Shebin el Kom	—	3	12	8	2	9	34
Mahalla el Kobra	—	4	15	24	12	2	57
Zagazig	1	5	24	12	8	5	55
Damanhour	1	7	29	18	9	9	73
Alexandria	4	6	54	28	12	25	129
Damietta	1	1	24	12	7	2	47
Fayoum	—	2	18	33	20	6	79
Assiut	2	2	6	10	6	9	35
Minia	—	1	15	21	7	4	48
Qena	—	1	1	2	1	1	6
TOTAL	32	177	501	398	198	144	1,450

TABLE NO. 56.—MONTHLY NUMBER OF PATIENTS ATTENDING THE VARIOUS CHEST DISEASES
BRANCHES DURING THE YEAR 1942

Month	Number of Patients	Month	Number of Patients	
January	9,265	July	7,231	Total Number 97,367
February	9,548	August	7,940	
March	9,587	September	7,077	
April	9,579	October	5,774	
May	8,869	November	7,553	
June	7,849	December	7,095	

**TABLE NO. 57.—NUMBER OF NEW PATIENTS ATTENDING CHEST DISEASES UNITS
DURING THE LAST FIVE YEARS AND POSITIVE CASES DETECTED**

Year	Number of new patients	Positive for T.B.	Percentage
1938... ..	96,957	4,320	4.4
1939... ..	113,296	4,933	4.3
1940... ..	121,177	5,361	4.4
1941... ..	101,957	5,598	5.4
1942... ..	97,367	5,986	6.1

TABLE 58.—NUMBER OF THE VARIOUS UNITS ATTACHED TO THE CHEST DISEASES SECTION FROM 1929

Year	Chest Diseases Dispensaries	In-Patient Sections	Chest Sanatoria	T.B. Bones Sanatoria	Preventoria
1929	2	—	—	—	—
1930	3	—	—	—	—
1931	3	—	—	—	—
1932	3	—	—	—	—
1933	4	—	—	—	—
1934	4	—	1 ⁽¹⁾	—	—
1935	5	—	1	—	—
1936	6	—	1	1 ⁽²⁾	—
1937	8	—	1	1	—
1938	12	2	2	1	1
1939	13	2	2	1	1
1940	14	4	2	1	4
1941	14	4	2	1	4
1942	15	6	2	2	4

N.B.—⁽¹⁾ Fouad Sanatorium, Helwan, was attached to this Section in September 1934.

⁽²⁾ Maritime Sanatorium, Alexandria, was attached to this Section in September 1936.

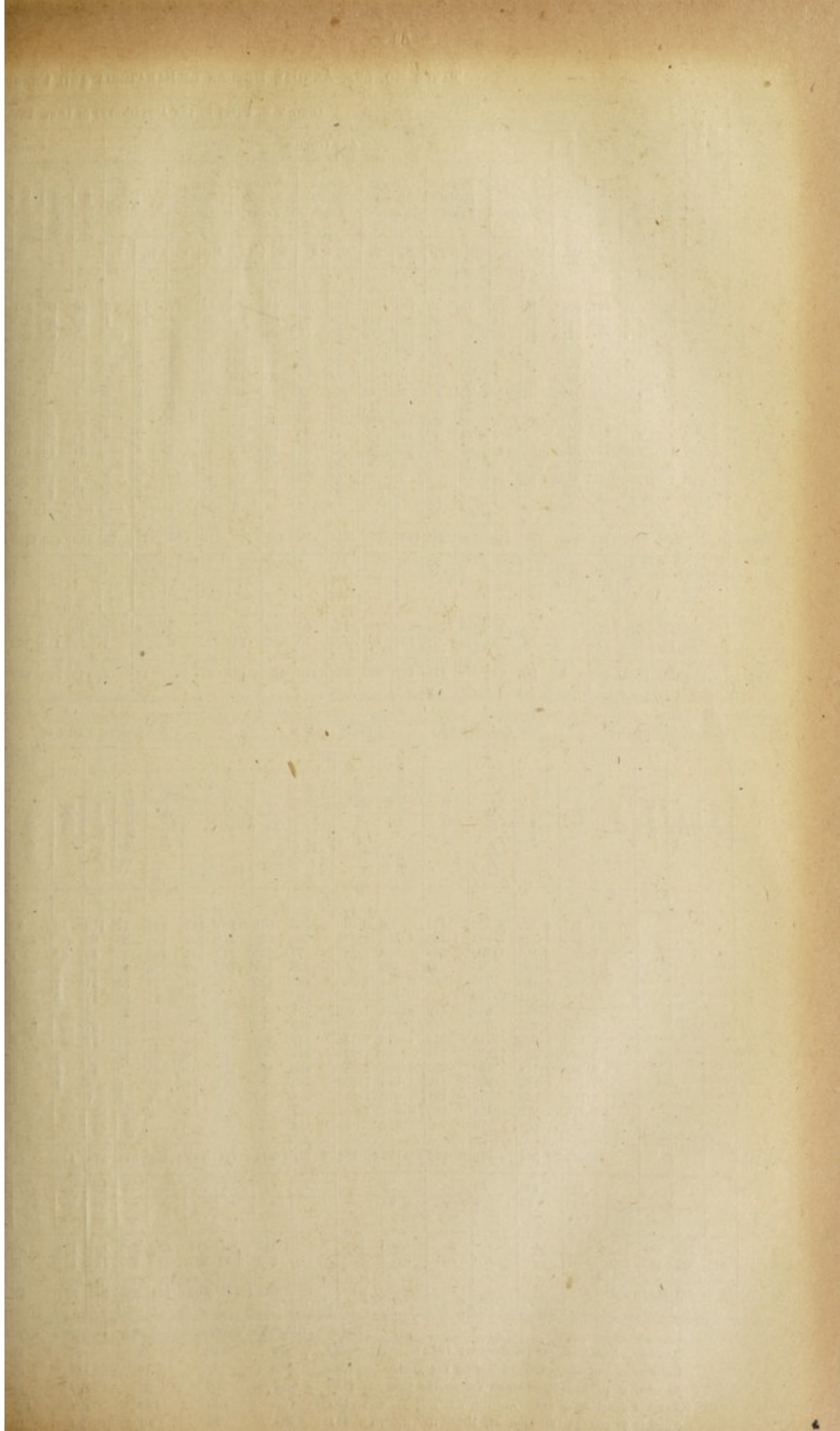


TABLE NO. 59.—ANNUAL RETURN OF SANATORIA AND CHEST DISEASE

New Cases seeking Treatment (Dispensary)		(New T.B. Cases in the Dispensary) or (New Patients admitted)																						
		T.B. Cases			Other Chest Diseases	Age Groups														Professions				
		Total	Sputum+	X-Ray+		From 1-9 Years		From 10-19 Years		From 20-29 Years		From 30-39 Years		From 40-49 Years		From 50-59 Years		Over 60 Years		Vendors	Officials	Workmen	Peasants	Students
						M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.					
10,944	850	553	297	8094	19	16	75	48	195	95	169	65	61	20	42	22	18	5	49	90	281	68	17	
8,929	852	513	339	8077	15	16	81	51	246	106	139	64	68	27	21	7	10	1	28	65	307	130	17	
7,215	740	416	324	6473	47	30	81	51	196	83	90	60	46	24	16	11	5	—	34	68	250	36	19	
8,816	506	349	157	8261	4	14	53	58	106	59	86	52	34	24	9	2	3	2	13	26	92	163	10	
10,208	307	217	90	9901	7	5	15	15	76	47	57	25	35	10	10	2	3	—	18	19	74	65	10	
11,758	382	278	104	11276	2	9	40	15	95	43	65	34	35	17	11	7	5	4	16	7	88	124	9	
7,887	214	165	49	7448	2	—	21	18	35	25	44	23	28	10	2	1	2	3	5	5	67	46	9	
4,223	165	120	45	4058	1	—	14	9	29	17	38	26	10	4	6	6	3	2	3	5	24	62	1	
4,490	436	309	127	2775	10	4	56	23	135	39	80	18	32	12	13	7	6	1	22	29	83	160	13	
3,851	436	311	125	3415	8	7	51	30	144	40	75	15	36	8	13	1	5	3	44	52	207	11	10	
5,708	460	285	175	5248	25	12	40	25	108	42	86	37	36	25	12	8	4	—	31	16	131	73	14	
4,560	206	203	3	3679	—	1	13	9	59	26	39	13	27	5	12	—	2	—	9	9	40	90	10	
5,249	225	150	75	4386	14	11	6	8	37	21	32	27	22	10	16	10	9	2	6	12	26	112	9	
2,752	161	116	45	2595	2	3	7	5	29	12	29	32	16	5	12	5	2	2	10	15	33	30	5	
777	46	30	16	545	—	—	2	2	9	3	9	5	5	6	4	1	—	—	—	7	7	13	1	
TOTAL	97,367	5986	4015	1971	86231	156	128	555	367	1499	658	1038	496	491	207	199	90	77	25	285	425	1710	1183	145
1,259	28	22	6	1231	—	—	3	2	7	1	6	2	5	—	—	1	—	1	1	2	7	11	—	—
153	5	5	—	148	—	—	1	—	1	—	1	1	—	—	1	—	—	—	1	—	1	1	—	—
32	5	1	4	22	—	—	—	—	1	—	1	1	2	—	—	—	—	—	—	1	—	2	1	—
1,209	1161	840	321	48	19	11	158	105	370	158	194	66	59	25	25	8	9	2	60	146	323	156	93	
869	865	692	173	4	9	8	120	71	291	104	135	40	50	18	12	6	4	1	50	116	269	123	75	
TOTAL	2,078	2026	1532	494	52	28	19	278	176	661	262	329	106	109	43	37	14	13	3	110	262	592	279	168

	Exam. of (Sanat.)				Old Cases (Disp.)				Visits (Disp.)		Discharged Patients										
	Teeth	Nose	Throat	Ears	Total	T.B. Cases	Under Observation	Contacts	Other Chest Diseases	Nurses Visits	M.O. Visits	Total	Sputum on Discharge		Improved	Stationary	Worse	Died	Ability to Work		
													Pos.	Neg.					Complete	Partial	Unable
					11,347	6,829	4,392	121	5	3,042	363	349	207	142	145	18	136	50	30	101	1
					11,350	7,549	1,171	1,298	1,332	1,876	360	252	143	109	151	38	63	—	—	135	1
					9,057	6,405	1,403	590	659	2,282	371	336	150	153	182	75	46	33	1	143	1
					3,385	3,086	65	52	182	1,307	370	185	102	83	116	36	25	8	—	80	
					9,522	4,885	789	364	3,484	2,300	361	120	75	37	57	35	21	7	1	30	
					22,708	7,411	3,706	1,164	10,427	1,299	295	93	53	40	47	26	17	3	—	41	
					9,072	3,751	643	444	4,234	1,409	456	53	28	25	17	32	4	—	1	23	
					3,735	3,085	578	15	57	562	265	39	27	12	12	—	27	—	—	12	
					5,076	3,140	298	212	1,426	1,188	370	104	52	46	72	21	11	—	4	79	
					7,848	6,038	1,383	383	44	1,817	346	47	24	16	18	15	7	7	—	19	
					6,328	3,715	361	295	1,957	1,848	350	162	105	57	145	3	10	4	2	84	
					4,167	1,556	205	710	1,696	1,639	483	35	25	10	24	6	4	1	2	19	
					3,990	2,068	739	161	1,022	1,514	355	27	13	14	16	4	7	—	1	15	
					5,616	1,913	454	262	2,987	1,152	361	11	7	4	6	—	—	—	—	7	
					450	123	78	8	241	61	25	—	—	—	—	—	—	—	—	—	
TOTAL					113,651	61,554	16,265	6,079	29,753	24,286	5,131	1,813	1,011	748	1,008	314	378	113	42	788	8
					176	135	38	—	3	—	—	—	—	—	—	—	—	—	—	—	
					142	36	8	—	98	—	—	—	—	—	—	—	—	—	—	—	
					—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	812	224	818	181	—	—	—	—	—	—	—	1,189	726	463	656	226	181	126	36	615	4
	816	423	423	423	—	—	—	—	—	—	—	853	516	337	475	107	163	108	6	406	3
TOTAL	1628	647	1241	604	—	—	—	—	—	—	—	2,042	1,242	800	1,131	333	344	234	42	1,021	7

	Helwan	Abbassia	Mansoura	Zagazig	Damietta	Fayoum	Tanta
Number of patients on 1st January 1942	424	392	20	8	34	16	—
Number of patients admitted during the year	1209	869	56	46	125	38	42
Number of patients discharged during the year	1189	853	56	35	127	35	22
Average duration of stay	150	144	120	120	107	131	82
Number of patients on Dec. 31, 1942	444	408	20	19	32	19	20

TABLE NO. 60.—ANNUAL RETURN OF THE WORK OF

	Discharged	Diseases attacked children during their residence						Result of mantoux test in the child		NEW CHILDREN									
		Other diseases	Skin	Ophthalmia	Chest	Intestines	Stomach	+	—	Details of their relative patients									
										Condition				Relation					
										Lesion		Alive	Died	Other relative	Sister	Brother	Mother	Father	
										Sp.	X.R.								
Zeitoun Preventorium	45	63	5	61	4	53	4	8	2	6	32	34	4	—	—	—	19	19	
Giza	24	5	23	18	3	6	1	—	4	1	14	15	—	—	—	—	11	4	
Mehalla El Kobra	3	3	2	12	—	1	—	29	2	28	3	31	—	—	—	3	17	10	
Assiut	6	29	75	170	—	32	—	4	3	8	1	9	—	5	—	1	—	3	
TOTAL	78	100	105	261	7	89	5	41	11	43	50	89	4	5	—	4	47	36	

	Zeitoun	Giza	Mehalla El Kobra	Assiut
<i>N.B.</i> —No. of Children on January 1, 1942	89	48	—	21
„ „ admitted during the year	33	15	31	19
„ „ discharged „ „	45	24	3	6
„ „ on Dec. 31, 1942	82	39	28	34

TABLE NO. 61.—ANNUAL RETURN OF CASES TREATED IN ALEXANDRIA MARITIME SANATORIUM

OUT-PATIENT SECTION																				
New Patients											Old Patients					Treatment		Minor Operations	Dressings	X-Rays
Total	Under 5 years		5-10 years		Over 10 years		Rickets	T.B Spine	T.B. bones and joints	Other diseases	Total	Rickets	T.B. Spine	T.B. bones and joints	Other diseases	By Electricity	By Ultra Violet			
	M.	F.	M.	F.	M.	F.														
526	67	51	37	28	144	198	36	43	113	333	1,125	301	10	57	757	41	507	5	510	184
45	2	1	6	11	16	9	3	11	14	17	—	—	—	—	—	—	—	—	—	—
570	69	52	43	39	160	207	39	54	127	350	1,125	301	10	57	757	41	507	5	510	184

	Alexandria	Abbasia
Number of patients on January 1, 1942	63	—
Number of patients admitted during the year	168	168
Number of patients discharged during the year... ..	166	113
Number of patients on Dec. 31, 1942	65	45

THE PREVENTORIA DURING 1942

ADMITTED

AGES																							No. of new children	
Above 10 years		10 years		9 years		8 years		7 years		6 years		5 years		4 years		3 years		2 years		1 year		Under one year		
F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		M.
1	—	—	—	—	—	1	—	—	1	2	1	4	3	2	—	2	1	1	1	1	—	10	7	38
—	—	—	—	—	—	—	1	—	—	1	—	—	—	—	1	—	—	—	—	4	1	—	7	15
2	—	1	—	—	—	1	—	1	1	3	3	2	3	2	2	1	3	—	3	—	2	—	3	31
—	—	1	1	1	—	2	1	1	1	1	1	1	—	2	—	2	2	1	—	1	—	—	—	19
3	—	2	1	1	—	4	2	2	3	7	5	7	6	6	3	5	6	2	4	6	3	10	17	103

AND SURGICAL BONES SECTION IN ABBASSIA C.D.H. DURING 1942

IN-PATIENT SECTION																						
New Patients												Discharged				Treatment		Major Operations	Plaster	X-Rays		
Total	Under 5 years		5-10 years		Over 10 years		T.B. Spine	T.B. Hip	T.B. Knee	T.B. other joints	Other diseases	Total	Cured	Improved	Stationary	Discharged in plaster	By Electricity					By Ultra Violet
	M.	F.	M.	F.	M.	F.																
168	14	11	29	17	61	36	42	25	23	33	45	166	45	56	43	22	—	215	28	88	328	Alexandria Maritime Sanat.
158	8	4	14	16	72	44	51	8	23	23	53	113	11	86	16	39	—	—	18	86	154	Surgical bones Section in Abbassia C.D. Hospital
326	22	15	43	33	133	80	93	33	46	56	98	279	56	142	59	61	—	215	46	174	482	

Chapter X.—LEPROSY

The anti leprosy campaign was started in 1929 by the creation of a treatment centre in Cairo. This was followed by other units created in the chief towns of provinces until, by the end of 1942, there were 10 main units with 36 branches. Most of the capitals of provinces are provided with clinics for the detection and treatment of lepers. The units do not only serve the capital of the province but also the neighbouring villages. The patients are thus spared the trouble and expense of having to attend the main clinic for treatment.

Leprosy Units and Branches.

(1) Abu-Zaabal leprosy colony. This is actually used for the isolation of male lepers. The necessary buildings for isolating female lepers as well are in the course of construction.

(2) Cairo leprosy hospital is temporarily accommodating female patients until the necessary buildings at Abu-Zaabal colony are completed. This hospital has three out-patient branches attached to it at Kalioub, Imbaba and Kara-Midan.

(3) Zagazig leprosy clinic and its 5 branches at Abu Hammad, Shebin el Kanater Mashtoul, Minia el Kamh and Abu Kebir.

(4) Tanta leprosy clinic and its 4 branches at Zifta, Mahalla el Kobra, Kafr el Zayyat and Kellin.

(5) Shebin el Kom leprosy clinic and its 5 branches at Menouf, Ashmoun, Quesna, Benha and El Batanon.

(6) Mansoura leprosy clinic and its 4 branches at Damietta, Simbellawen, Sherbin and Dekernis.

(7) Alexandria leprosy clinic and its 6 branches at Damanhour, Idko, Mahmoudieh, Rosetta, Shobrakheet and Abu-Hommos.

(8) Minia leprosy clinic and its 4 branches at Beni-Mazar, Abu Kirkas, Samallut and Mallawy.

(9) Soubag leprosy clinic and its 4 branches at Tima, Akhmim, Tahta and Girga.

(10) Qena leprosy clinic and its 4 branches at Luxor, Kous, Dishna and Nag Hamadi.

Abu-Zaabal Leprosy Colony.

The number of patients isolated in the colony at the end of 1942 was 304.

In order that a colony such as that at Abu Zaabal which is situated a long way from habitation may flourish, it is necessary that inmates undertake such domestic activities as may be needed for their maintenance and provision, without outside assistance except in rare urgent circumstances. To insure this, some technical posts were created in the budget of the colony, namely for a tailor, a shoemaker, a carpenter, a painter and a mason. On the one hand, these will undertake the technical work required by the colony and, on the other, will train able patients in these occupations.

Mention was made that the waste land surrounding the colony was levelled by the inmates and utilised in growing vegetables for them. Another site, apart from the first, is being prepared for the cultivation of vegetables for the staff of the colony. Healthy persons are engaged in this work. In view of supply difficulties arising from the war, a cooperative society was formed to supply the staff with commodities at reasonable prices. A canteen was also provided to supply patients with refreshments.

As an encouragement to patients, it was decided this year to grant a monthly allowance to patients who look after crippled inmates or who perform other work, *e.g.* agriculture, carpentry, tailoring, etc. This was much appreciated by the patients who now feel that they are no longer in detention. Life in the colony is now almost normal.

The workshops were very active during the year. Some 1,300 pairs of shoes, and 3,200 pieces of garments were made for lepers in the colony and the Cairo hospital — thus it was possible to dispense with supplies of both items from central stores. The carpentry shop made all huts, doors, sheds, etc., that were required in the wards. The other workshops similarly carried out all that was required for the colony.

Cairo Leprosy Hospital.

Out of 293 patients consulting the hospital in 1942, 210 were diagnosed positive for leprosy. The remaining 83 suffered from other skin diseases and were referred to the special hospitals. Out of 180 contacts examined, 2 were returned positive for leprosy and the remaining 178 were put under observation to be examined once every three months.

A total of 1,319 patients attend the hospital branches at Imbaba, Karamidan and Kalioub and are treated for leprosy and other accompanying diseases.

A school was created in the hospital in September 1937 to teach the children reading, writing, arithmetic, religion, etc. A radio was provided for the recreation and entertainment of the patients. Materials for needlework were supplied by the Ministry to keep the patients occupied. The patients were able to make garments for themselves as well as other works of embroidery.

Out-Patient Clinics.

Besides the Abu Zaabal colony and the Cairo hospital, there are 8 principal out-patient clinics in the chief towns of provinces with four branch clinics attached to each. The medical officer and staff proceed to the branch clinic by means of a car suitably equipped for examination and treatment purposes. The staff can also reach these branches by train in case the car is not working.

Patients.

The number of patients attending all the anti leprosy clinics during the year was 1,586 as against 1,387 in 1941. Of this number 825 patients suffered from leprosy as against 728 last year. The rest were found suffering from other skin diseases and were referred to the competent hospitals.

The number of patients who were examined since the anti leprosy campaign was first started in March 1929 up till the end of December 1942 in all the leprosy clinics and branches was 20,584 of which 9,979 were returned positive for leprosy. However, 2,413 of this number were recorded in more than one clinic leaving 7,566 lepers proper.

Treatment.

Besides treatment of leprosy, the unit medical officers treat also any other accompanying disease which lepers may have contracted. A dentist and an ophthalmologist visit Abu Zaabal leprosy colony and Cairo hospital once a week.

Drugs used in the Treatment of Leprosy.

- (1) Hydnocarpus oil.
- (2) Iodised ethyl ester of hydnocarpus oil.
- (3) Non-iodised ethyl ester of hydnocarpus oil.

These are injected intramuscularly once or twice a week. Treatment is begun by a dose of 0.5 cc. which is increased by 0.5 cc. every injection until a maximum dose of 5 cc. is reached. This is then maintained. The hydnocarpus oil proved to be the most effective, besides having the advantages of causing no irritation of the tissues and being the cheapest.

Surgical Operations.

When necessary, the medical officers of Abu Zaabal colony and Cairo hospital undertake such surgical operations as may be required by the lepers, *e.g.* hernias, piles, calculi of the bladder, etc.

TABLE 62.—NUMBER OF LEPROSY UNITS SINCE 1929

Year	Principal Units	Branches
1929... ..	1	—
1930... ..	3	—
1931... ..	5	—
1932... ..	5	4
1933... ..	6	8
1934... ..	6	8
1935... ..	6	10
1936... ..	6	12
1937... ..	6	15
1938... ..	9	15
1939... ..	10	21
1940... ..	10	33
1941... ..	10	38
1942... ..	10	39

TABLE NO. 63.—GIVES THE NUMBER OF NEW PATIENTS CONSULTING UNITS DURING THE PAST 5 YEARS AND RATIO OF POSITIVE LEPROSY CASES

Year	No. of new patients	No. of positives for leprosy	Percentage
1938... ..	2,172	1,047	50%
1939... ..	2,198	1,059	48%
1940... ..	2,299	995	44%
1941... ..	1,387	728	52%
1942... ..	1,586	825	52%

1. The first part of the report is a general statement of the work done during the year. It is a summary of the progress made in the various departments of the institution, and is intended to give a general view of the state of affairs at the end of the year.

2. The second part of the report is a detailed account of the work done in each of the departments. It is a summary of the progress made in each of the departments, and is intended to give a detailed view of the state of affairs in each of the departments.

3. The third part of the report is a summary of the work done in each of the departments. It is a summary of the progress made in each of the departments, and is intended to give a summary view of the state of affairs in each of the departments.

4. The fourth part of the report is a summary of the work done in each of the departments. It is a summary of the progress made in each of the departments, and is intended to give a summary view of the state of affairs in each of the departments.

5. The fifth part of the report is a summary of the work done in each of the departments. It is a summary of the progress made in each of the departments, and is intended to give a summary view of the state of affairs in each of the departments.

6. The sixth part of the report is a summary of the work done in each of the departments. It is a summary of the progress made in each of the departments, and is intended to give a summary view of the state of affairs in each of the departments.

7. The seventh part of the report is a summary of the work done in each of the departments. It is a summary of the progress made in each of the departments, and is intended to give a summary view of the state of affairs in each of the departments.

8. The eighth part of the report is a summary of the work done in each of the departments. It is a summary of the progress made in each of the departments, and is intended to give a summary view of the state of affairs in each of the departments.

9. The ninth part of the report is a summary of the work done in each of the departments. It is a summary of the progress made in each of the departments, and is intended to give a summary view of the state of affairs in each of the departments.

10. The tenth part of the report is a summary of the work done in each of the departments. It is a summary of the progress made in each of the departments, and is intended to give a summary view of the state of affairs in each of the departments.

TABLE No. 64.—ANNUAL STATISTIC

Unit	No. of Patients			General Remarks										How Infection was Conveyed								
	New Patients	Negative for Leprosy	Positive for Leprosy	Males	Females	Married	Single	Egyptian	Foreigner	Moslem	Coptic	Other Religions	Denies Infection	Admits Infection	Foreign Contact	Family Contact	Father Contact	Mother Contact	Parents	Husband	Wife	
Abu Zaabal	76	—	76	76	—	27	49	76	—	73	1	2	52	24	11	13	—	1	—	—	—	
Cairo	273	63	210	159	51	96	114	208	2	201	7	2	146	64	27	37	8	5	—	2	1	
Zagazig	56	—	56	37	19	23	33	56	—	53	3	—	39	17	—	17	—	4	—	—	—	
Subag... ..	114	26	88	74	14	51	37	88	—	72	16	—	61	27	—	27	7	2	—	—	—	
Tanta... ..	268	175	93	67	26	36	57	93	—	92	1	—	77	16	1	15	3	—	—	—	—	
Minia	268	213	55	42	13	30	25	55	—	46	9	—	49	6	1	5	1	1	—	1	—	
Alexandria	118	62	56	39	17	22	34	56	—	56	—	—	47	9	1	8	—	1	—	—	—	
Mansoura	162	90	72	47	25	30	42	72	—	71	1	—	49	23	10	13	—	3	—	—	—	
Shebin el Kom	142	60	82	66	16	43	39	82	—	81	1	—	60	22	12	10	1	1	—	—	—	
Qena	109	72	37	26	11	15	22	37	—	35	2	—	31	6	—	6	1	1	—	—	—	
TOTAL	1586	761	825	633	192	373	452	823	2	780	41	4	611	214	63	151	21	19	—	3	1	

Unit	Duration of Disease							Laboratory Findings					No. of Patients since Inauguration				
	1 year	2 years	3-5 years	6-10 years	11-15 years	16-20 years	From 21 and upward	Neg. B.C.	Positive B.C.	Nose Only	Skin Only	Nose & Skin	General No.	No. of Negative	No. of Positive	No. of Readmitted	True No. of Positive
Abu Zaabal	7	12	31	16	6	3	1	22	54	8	—	46	906	—	906	751	155
Cairo	65	47	70	17	6	2	3	109	101	4	5	92	5,911	3,132	2,779	347	2,432
Zagazig	6	4	31	10	3	—	2	33	23	11	—	12	1,965	1,141	824	167	657
Subag	6	15	50	15	2	—	—	5	83	44	—	39	3,407	2,040	1,367	108	1,269
Tanta	34	26	13	13	2	2	4	46	47	13	2	32	3,524	2,043	1,481	274	1,207
Minia	9	28	12	6	—	—	—	24	31	—	11	20	1,738	824	914	83	831
Alexandria	16	13	8	13	6	—	—	31	25	4	7	11	713	445	268	78	190
Mansoura	30	13	17	9	2	1	—	27	45	25	—	20	918	297	621	300	321
Shebin el Kom	33	22	17	9	—	—	1	19	63	29	—	34	831	304	527	251	276
Qena	13	6	8	7	—	3	—	17	20	3	1	16	671	379	292	54	238
TOTAL	219	186	257	115	27	11	11	333	492	141	26	325	20,584	10,605	9,979	2,413	7,566

Unit	Cairo Gov.		Alex. Gov.		Damietta Gov.		Canal Gov.		Suez Gov.		Behera Province		Gharbia Province		Menoufia Province		Dakahlia Province		Sharkia Province		Kaliubia Province	
	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence
Abu Zaabal	—	5	—	1	—	—	—	—	—	—	5	5	7	7	10	10	6	7	1	1	4	4
Cairo	8	58	—	—	—	—	—	—	—	—	8	8	21	18	20	16	7	7	4	3	36	35
Zagazig	—	—	—	—	—	—	—	1	—	—	1	1	1	—	—	—	5	6	24	24	24	24
Subag	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1	—	—	—	—	—	—	—	—	—	5	5	69	70	6	6	10	10	—	—	2	2
Minia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Alexandria	—	—	—	—	—	—	—	—	—	—	27	24	14	13	1	—	1	—	—	—	—	—
Mansoura	—	—	4	16	1	—	—	—	—	—	16	18	1	—	—	—	50	49	—	—	—	—
Shebin el Kom	—	—	—	—	5	5	—	—	—	—	1	1	1	1	59	59	—	—	—	—	21	21
Qena	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL	9	63	4	17	6	5	—	1	—	—	44	47	129	127	97	91	79	79	29	28	87	86

Chapter XI.—VENEREAL AND SKIN DISEASES

The number of patients who attended the Venereal and Skin Diseases Clinics during the year for treatment and were found suffering from one or other of these diseases was 168,074 as against 148,194 in 1941. This increase is due to: (1) the opening of two new Venereal Diseases Clinics at Assuan and Boulaq Health Group, (2) the fact that wars are generally great factors in the increase of venereal diseases, and finally (3) the public's appreciation of the services rendered by these clinics and their increased attendance in consequence.

The number of attendances during the year under review was 548,545 as compared with 636,503 in the previous year.

I.—GONORRHOEA

The number of patients suffering from gonorrhœa during the year amounted to 30,702, as against 35,535 in 1941.

There are, however, two evident clinical phenomena in gonorrhœa.

Whereas the incidence of acute gonorrhœa is predominant among men, chronic gonorrhœa is predominant among women. This is chiefly due to two causes; one pertaining to the patient and the other to the disease itself. The first may be explained by the shyness of women to disclose their infliction on the onset of the disease particularly in public clinics. They are, besides, less appreciative of the consequences than men with the result that they seek treatment only when the disease becomes chronic, or when their quack remedies fail. Moreover, the disease is less painful in women.

No accurate estimate can be made of the actual number of gonorrhœa cases in Egypt owing to the absence of legislation providing for the compulsory notification of venereal diseases.

A project-law has, however, been drawn up for the protection of offsprings against venereal diseases which, when promulgated, will enable us to arrive at an approximate estimate of the number of venereal diseases cases. The project law is now under the consideration of the legislative authorities.

II.—SYPHILIS

The number of patients suffering from syphilis during the year was 15,147, which is about their number in 1941 (14,954).

Table No. 69 shows that the primary, secondary, latent and nervous forms of syphilis are a little more or about the same as those of 1941. The cases of tertiary and hereditary syphilis have comparatively decreased than last year.

III.—OTHER VENEREAL DISEASES

The number of patients suffering from other venereal diseases amounted to 119,847 as against 68,372 in 1941, or an increase of 75.2 per cent.

IV.—DISCONTINUATION OF TREATMENT

The ratio of patients of both sexes who discontinued treatment was 37.4 per cent for gonorrhœa and 35.9 per cent for syphilis. It is, however, hoped that by the publication of the law dealing with the protection of offsprings against venereal diseases, these ratios will be reduced to a minimum.

The reasons for discontinuation of treatment are chiefly the disappearance of acute pains in gonorrhœa after a short period of treatment and the patients underrating the consequences.

V.—TECHNICAL WORK

The Social Hygiene Department published in 1942 a reference book demonstrating clinical diagnosis and treatment of the different stages of each of the venereal diseases, for males and females.

This book was responsible for co-ordinating and uniforming the technical work in clinics.

TABLE NO. 65.—SHOWING THE TREATMENT DURING
THE LAST FIVE YEARS

Year	No. of Clinics	New Patients	No. of Visits
1938... ..	20	111,447	793,488
1939... ..	20	143,660	907,996
1940... ..	23	145,801	622,220
1941... ..	23	148,194	636,503
1942... ..	25	168,074	548,545

TABLE NO. 66.—DISTRIBUTION OF BEDS

Hospitals	1st Class	2nd Class	3rd Class Spec.	3rd Class Ord.	Children	Opth. Branch	Total Beds for Patients	Beds for Staff	Total No of Beds
Hod el Marsoud... ..	—	—	10	264	—	—	274	11	285
Kabbari	—	—	20	183	—	—	203	6	209
TOTAL	—	—	30	447	—	—	477	17	494

TABLE NO. 67.—HOSPITALS AND PATIENTS TREATED THEREIN DURING THE YEAR 1942

Hospitals	In-Patients						Out-Patients	
	Treated during the year	Discharged during the year				Remaining	New Cases	No. of Visits
		Cured	Relieved	Not imp.	Died			
Hod el Marsoud	3,251	1,786	1,266	—	—	199	594	14,545
Kabbari	2,132	2,052	—	—	—	80	1,125	4,009
TOTAL	5,383	3,838	1,266	—	—	279	1,719	18,554

TABLE No. 68.—SHOWING THE NUMBER OF NEW CASES AND VISITS TO THE SKIN AND VENEREAL DISEASES UNITS DURING 1942

Locality of Clinic	New Cases				Number of Visits				Total			
	Male		Female		Male		Female		New Cases	Old Cases	Number of Visits	
	Under 16 years	Over 16 years	Total	Total	Under 16 years	Over 16 years	Total	Over 16 years				
Sayed'a Zeinab ...	2,120	6,039	8,159	8,081	9,145	27,432	36,577	11,359	33,961	16,240	81,897	98,137
Shûbra ...	411	822	1,233	6,167	3,940	7,900	11,840	7,720	10,040	7,400	29,600	37,000
Gamalia ...	69	4,013	4,082	6,314	753	34,562	35,315	1,176	43,693	10,396	80,184	90,580
The Health Group, Boulac ...	2,931	6,727	9,658	12,213	4,896	14,289	19,185	8,572	17,832	21,871	45,589	67,460
Port-Said ...	3,241	2,703	5,944	6,502	2,789	10,222	13,011	4,042	13,220	12,446	30,273	42,719
Suez ...	920	1,807	2,727	4,044	1,247	7,873	9,120	1,928	14,602	6,771	25,650	32,421
Damanhour ...	2,396	1,886	4,282	5,249	3,971	6,950	10,921	5,064	12,472	9,531	28,487	38,018
Tanta ...	1,024	2,289	3,313	2,566	534	8,823	9,357	862	8,937	5,879	19,156	25,035
Mehalla el Kobra ...	584	978	1,562	1,218	973	4,599	5,572	921	4,343	2,780	10,836	13,616
Mansoura ...	759	1,426	2,185	2,179	845	7,619	8,464	2,333	19,343	4,984	30,140	35,124
Zagazig ...	2,068	2,517	4,585	4,288	618	1,852	2,470	655	1,573	8,873	4,698	13,571
Shebin el Kom ...	1,673	1,807	3,480	3,732	3,298	8,018	11,316	2,747	13,700	7,212	27,763	34,975
Fayoum ...	916	1,582	2,498	2,327	1,916	6,733	8,649	1,859	8,761	4,825	19,269	24,094
Beni-Suef ...	1,894	1,642	3,536	3,298	988	10,153	11,141	1,113	7,670	6,834	19,924	26,758
Minia ...	1,971	2,128	4,099	4,054	1,216	13,428	14,644	1,295	5,345	8,153	21,284	29,437
Assiut ...	1,111	1,933	3,044	3,244	1,174	5,696	6,870	2,078	5,826	6,288	14,774	21,062
Souhag ...	620	1,223	1,843	1,594	452	2,763	3,215	500	2,298	3,437	6,013	9,450
Girga ...	1,217	1,248	2,465	2,074	364	729	1,093	2,148	2,234	4,539	5,476	10,015
Qena ...	281	583	864	1,289	234	3,227	3,461	792	2,976	2,153	7,229	9,382
Nag Hammadi ...	421	552	973	1,076	483	3,397	3,880	716	3,377	2,049	7,973	10,022
Aswan ...	164	300	464	524	141	1,872	2,013	257	1,755	988	4,025	5,013
Benha ...	6	249	255	396	62	1,848	1,910	67	2,184	651	4,161	4,812
Sanuris ...	723	804	1,527	3,745	962	1,759	2,721	2,141	2,942	5,272	7,804	13,076
Tahta ...	155	965	1,120	1,998	375	1,815	2,190	1,159	2,525	3,118	5,874	8,992
Mit-Ghamr ...	1,426	982	2,408	2,976	2,218	2,033	4,241	2,879	3,346	5,384	10,466	15,850
TOTAL ...	29,101	47,205	76,306	91,768	43,594	195,582	239,176	64,413	244,956	168,074	548,545	716,619

TABLE NO. 69.—SHOWING NUMBER OF VENEREAL DISEASES CASES TREATED

Clinic	Gonorrhœa						Syphi-					
	Acute		Chronic		Total		Primary		Secondary		Tertiary	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Sayeda Zeinab ...	1,048	1,411	2,037	3,380	3,085	4,791	452	39	226	98	34	41
Shubra ...	380	150	141	2,574	521	2,724	108	50	76	57	20	4
Gamalia ...	1,750	2,619	798	3,193	2,548	5,812	509	51	195	120	19	7
The Health Group, Boulac ...	1,063	348	368	511	1,431	859	312	204	216	126	12	9
Port-Said ...	334	1	41	337	375	338	69	—	54	27	7	3
Suez ...	304	348	112	837	416	1,185	46	1	149	70	10	10
Damanhour ...	121	131	9	233	130	364	36	8	27	39	33	31
Tanta ...	282	72	144	190	426	262	233	5	39	31	46	39
Mehalla el Kobra ...	194	94	52	59	246	153	53	3	65	30	4	6
Mansoura ...	322	17	13	1,173	335	1,190	32	8	45	26	36	33
Zagazig ...	308	40	3	—	311	40	58	3	36	41	22	29
Shebin el Kom ...	123	68	48	488	171	556	50	11	49	45	32	29
Fayoum ...	155	79	15	34	170	113	39	5	151	142	68	90
Beni-Suef ...	177	7	15	234	192	241	103	1	106	58	17	6
Minia ...	194	40	46	92	240	132	192	13	87	50	17	25
Assiut ...	141	22	23	43	164	65	54	2	159	120	42	37
Souhag ...	82	1	11	3	93	4	20	—	79	74	21	27
Girga ...	70	8	13	21	83	29	88	18	200	162	79	133
Qena ...	87	1	15	1	102	2	36	3	60	71	16	20
Nag' Hammadi ...	27	7	18	24	45	31	27	7	129	157	65	49
Aswan ...	28	6	33	59	61	65	36	—	22	9	15	14
Benha ...	61	34	24	251	85	285	10	1	13	6	17	9
Sennuris ...	36	48	—	—	36	48	15	—	18	22	12	28
Tahta ...	16	9	7	48	23	57	13	21	1	15	42	13
Mit-Ghamr ...	28	17	7	15	35	32	15	5	12	18	9	15
TOTAL ...	7,331	5,578	3,993	13,800	11,324	19,378	2,506	459	2,214	1,612	695	707

TABLE NO. 70.—SHOWING NUMBER OF PATIENTS WHO COMPLETED THEIR COURSE OF TREATMENT AT THE VENERAL

Locality of Clinic	Patients Completed Treatment												
	Gonorrhœa			Syphilis			Other Diseases			Grand Total	Percentage		
	M.	F.	Total	M.	F.	Total	M.	F.	Total		Gonorrhœa	Syphilis	Other Diseases
Sayeda Zeinab ...	2,132	4,591	6,723	767	507	1,274	4,011	2,801	6,812	14,809	57	28	88
Shûbra ...	321	1,816	2,137	98	100	198	225	2,305	2,530	4,865	66	25	75
Gamalia ...	1,911	3,462	5,373	496	318	814	643	90	733	6,920	77.6	11.7	10.6
The Health Group, Boulac...	1,258	817	2,075	715	505	1,220	6,218	9,539	15,757	19,052	90.6	89.9	86.5
Port-Said ...	20	62	82	15	22	37	3,913	4,121	8,034	8,153	8.9	6.1	72
Suez ...	70	194	264	—	—	—	916	1,381	2,297	2,561	16	—	48
Damanhour ...	76	52	128	45	120	165	3,538	3,249	6,787	7,080	1.8	2.3	95.8
Tanta ...	242	168	410	266	116	382	2,215	1,795	4,010	4,802	8.5	7.9	83.5
Mehalla el Kobra.	47	6	53	111	57	168	1,100	909	2,009	2,230	2	8	90
Mansoura ...	52	154	206	21	39	60	1,045	887	1,932	2,198	13.5	66	65
Zagazig ...	6	10	16	10	17	27	36	45	81	124	13.5	14	1.1
Shebin el Kom ...	98	56	154	—	—	—	2,706	2,307	5,013	5,167	2.9	—	97.1
Fayoum ...	21	26	47	28	40	68	70	80	150	265	17.5	25.5	56.5
Beni-Suef ...	76	83	159	2	5	7	1,165	1,001	2,166	2,332	36.7	2	35.8
Minia ...	21	12	33	2	5	7	3,104	2,902	6,006	6,046	0.5	0.1	99.2
Assiut ...	16	—	16	1	—	1	207	1,066	1,273	1,290	6.8	0.1	33.9
Souhag ...	13	2	15	—	—	—	525	401	926	941	15.4	—	39.5
Girga ...	37	9	46	—	—	—	1,580	1,292	2,872	2,918	41	—	98
Qena ...	7	—	7	11	14	25	203	228	431	463	7	6	18
Nag' Hammadi...	25	26	51	—	—	—	500	605	1,105	1,156	65	—	79
Aswan...	43	48	91	35	38	73	152	120	272	436	72	39	46
Benha ...	12	37	49	—	—	—	9	1	10	59	14	—	11.6
Sennuris ...	35	59	94	14	22	36	1,120	2,940	4,060	4,190	98.9	34.1	77
Tahta ...	21	49	70	—	—	—	672	918	1,590	1,660	87.5	—	96.5
Mit-Ghamr ...	18	8	26	22	28	50	433	577	1,010	1,086	38.8	22.6	26.9
TOTAL ...	6,578	11,747	18,325	2,659	1,953	4,612	36,306	41,560	77,866	100,803	—	—	—

THE SKIN AND VENEREAL DISEASES CLINICS DURING THE YEAR 1942

								Other Diseases					
Latent		Hereditary		Nervous		Total		Chancroid		Other Venereal Diseases		Total	
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
88	145	43	42	6	3	849	368	232	91	3,933	2,891	4,165	2,982
153	245	30	50	3	2	390	408	58	35	264	3,000	322	3,035
162	224	14	17	1	2	900	421	536	42	98	39	634	81
113	85	69	89	28	17	750	530	42	35	7,435	10,789	7,477	10,824
87	118	23	29	—	2	240	179	94	—	5,246	5,974	5,340	597
42	68	7	18	2	—	256	167	8	1	1,932	2,806	1,940	2,807
46	191	12	22	6	—	160	291	60	10	3,932	4,584	3,992	4,594
55	80	17	14	3	2	393	171	15	—	2,479	2,133	2,494	2,133
65	99	27	18	2	—	216	156	—	—	1,100	909	1,100	909
24	227	29	25	1	1	167	320	124	19	1,560	1,269	1,684	1,288
19	64	12	8	1	—	148	145	55	1	3,439	3,152	3,494	3,153
39	185	78	47	—	—	248	315	9	1	2,808	2,308	2,817	2,309
17	36	6	3	1	—	282	276	—	—	2,046	1,938	2,046	1,938
13	27	15	10	1	—	255	102	117	—	2,972	2,955	3,089	2,955
7	28	37	28	5	1	345	145	41	—	3,473	3,777	3,514	3,777
100	202	4	1	2	—	361	362	—	—	2,621	2,715	2,621	2,715
272	355	60	56	5	2	457	514	3	—	1,310	1,056	1,313	1,056
1	3	39	45	3	—	410	361	—	—	1,972	1,684	1,972	1,684
25	89	32	49	10	1	179	233	2	—	689	946	691	946
20	96	1	29	—	—	242	338	19	6	664	704	683	710
19	53	3	13	1	—	96	89	8	3	299	367	307	370
46	84	4	4	1	—	91	104	18	1	61	6	79	7
—	4	4	2	—	—	49	56	—	—	1,442	3,641	1,442	3,641
332	826	43	87	—	—	431	962	—	—	707	938	707	938
16	11	62	55	1	—	115	104	—	—	2,258	2,840	2,258	2,840
761	3,545	671	761	83	33	8,030	7,117	1,441	245	54,740	63,421	56,181	63,666

SES CLINICS AND THOSE WHO CEASED TO ATTEND BEFORE COMPLETION OF THEIR TREATMENT DURING 1942

Patients who Ceased to attend before Completion of their Treatment												
Gonorrhoea			Syphilis			Other Diseases			Grand Total	Percentage		
M.	F.	Total	M.	F.	Total	M.	F.	Total		Gonorrhoea	Syphilis	Other Disease
2,953	6,246	9,199	961	618	1,579	1,847	1,693	3,540	14,318	22	13	10
258	302	560	236	186	422	6	4	10	992	56.4	42.5	1
173	42	215	77	60	137	1,217	1,250	2,467	2,819	9.4	10.1	13.5
399	280	679	193	167	360	666	926	1,592	2,631	7.4	6	16
71	127	198	61	42	103	213	301	514	815	12	24	11
32	84	116	24	168	192	431	248	679	987	11.7	19.4	68.7
184	94	278	127	55	182	279	338	617	1,077	25.8	16.9	57.2
24	20	44	36	17	53	—	—	—	97	45	55	—
193	656	849	119	185	304	590	380	970	2,123	55.6	33.4	32.6
273	28	301	103	100	203	3,458	3,108	6,566	7,070	78	70	98.9
25	87	112	63	52	115	240	212	452	679	16.4	16.9	66.7
95	92	187	84	82	166	116	109	225	578	36	28.5	38.5
75	120	195	150	39	189	885	760	1,645	2,029	45	52.9	27.7
215	112	327	285	105	390	675	569	1,244	1,961	16.6	19.8	63.4
146	34	180	58	72	130	1,126	608	1,734	2,044	79.5	17.9	45.1
80	2	82	192	181	373	788	655	1,443	1,898	84.5	10.0	61.3
43	23	66	198	153	351	—	—	—	417	59	45	—
96	1	97	168	219	387	1,118	918	2,036	2,520	93	94	82
10	3	13	45	32	77	183	105	288	378	17	18	20
18	17	35	61	51	112	127	46	173	320	28	61	54
49	176	225	30	63	93	54	4	58	376	72.8	48	67.4
1	—	1	24	45	69	407	805	1,212	1,282	1	65.9	22.9
2	8	10	—	—	—	35	20	55	65	12.5	—	3.5
18	16	34	46	42	88	493	590	1,083	1,205	50.7	39.8	57
5,433	8,570	14,003	3,341	2,734	6,075	14,954	13,649	28,603	48,681	—	—	—

Chapter XII.—MENTAL DISEASES

Patients.

The patients remaining on December 31, 1941, numbered 4,444; new admissions in 1942 numbered 2,499 (1,607 males and 892 females) as against 2,454 in 1941. Therefore the total number of cases treated in 1942 amounted to 6,943. Out of this number, 3,004 cases were discharged or died thus leaving 3,939 patients.

Accused Patients.

The number of accused persons sent by the Procurer General for examination and report was 219. The Parquet also asked for reports on 51 cases admitted as ordinary patients. Among the patients sent for examination 39 persons were accused of murder or attempted murder.

The number of accused and criminal patients in residence up to December 31, 1942 amounted to 882.

Pellagrous Admissions.

608 cases suffering from pellagra were admitted during the year under review (427 males and 181 females) as against 585 cases in 1941.

Treatment.

(1) The Wasserman reaction tests were carried out in the Central Laboratories of the Ministry. Specimens of cerebro-spinal fluid were also taken from patients where this was necessary.

(2) 12 cases were treated in the out-patient clinics.

(3) In the Dental and Ophthalmic Departments, a great number of patients was treated.

(4) The number of cases treated locally from physical ailments amounted to 13,221.

(5) 193 X-Ray films were taken and screening was made for 104 cases.

(6) Shock therapy by the use of cardiazol or tetracor was carried out on 89 males and 72 females. Of these, 131 cases were of the schizophrenic reaction-type, 40 cases of which recovered or markedly improved, 42 improved slightly, while the rest showed no change. 16 other cases were of the manic depressive-type and out of these 7 recovered or markedly improved, 4 improved slightly, while the rest showed no change. 11 cases were confusional in type, and out of these 4 cases recovered or markedly improved, two others showed slight improvement, while the rest did not respond to treatment. The remaining 3 cases were suffering from paraphrenia and showed no improvement.

Suicides.

Fortunately no suicides or attempted suicides have taken place during the year under report.

Births.

8 children were born during the year in the female wards.

Medical Commissions.

(1) *Central Medical Commission.*

67 officials and employees were sent for examination, 21 reports were sent on inmates of the hospitals.

(2) *Military Medical Board.*

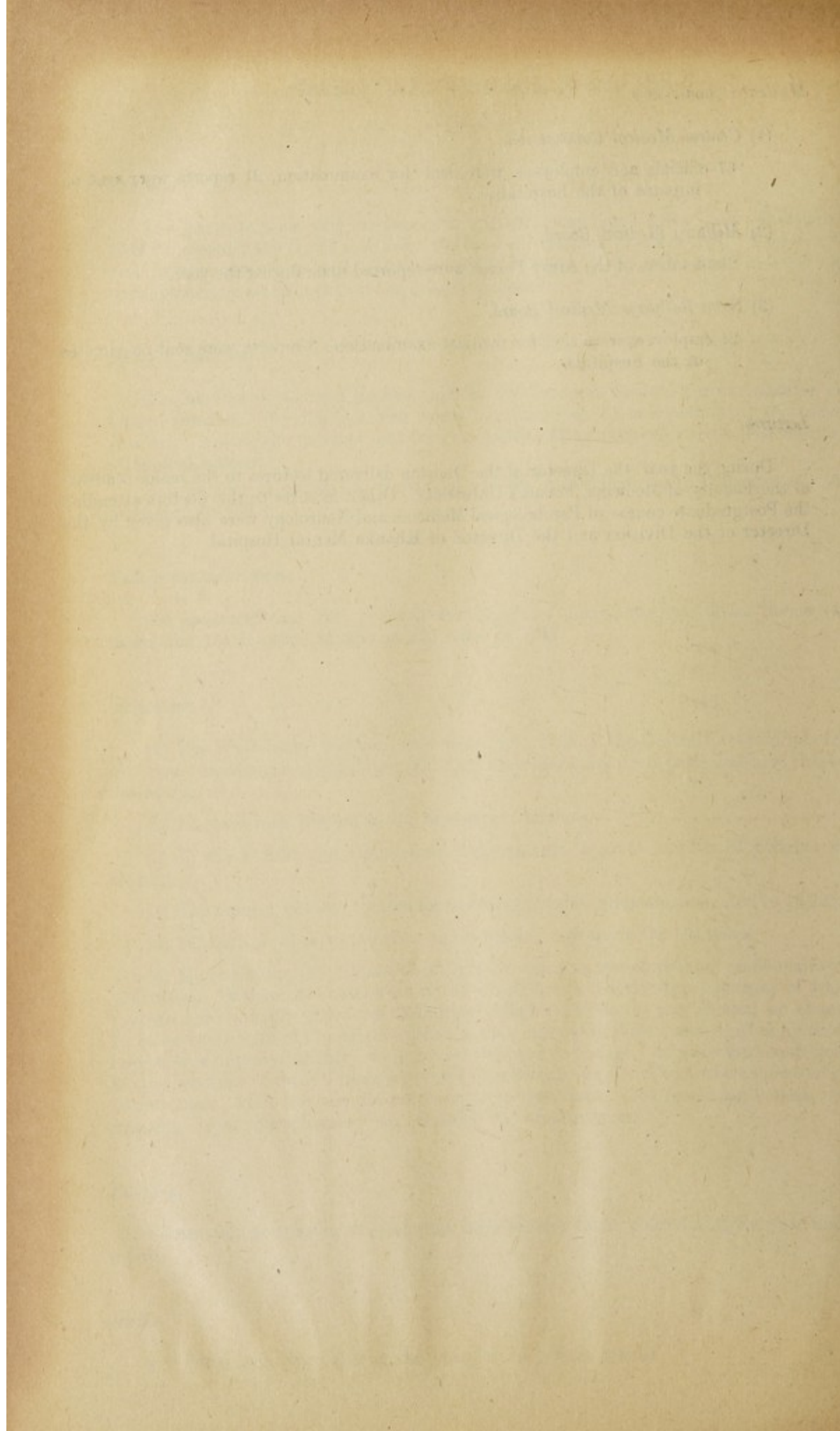
29 members of the Army Forces were reported upon during the year.

(3) *State Railways Medical Board.*

21 employees were sent for medical examination. 3 reports were sent on inmates of the hospitals.

Lectures.

During the year, the Director of the Division delivered lectures to the senior students of the Faculty of Medicine, Fouad I University. Other lectures to the doctors attending the Postgraduate course of Psychological Medicine and Neurology were also given by the Director of the Division and the Director of Khanka Mental Hospital.



Part IV.—TREATMENT

Chapter XIII.—GENERAL HOSPITALS

Hospitals in Operation.

A total of 72 general hospitals under the control of the Ministry were in operation during the year. Of these, 20 were in the Governorates and Chief Towns of Provinces, and 52 in Bandar towns and districts. There were in addition four out-patient clinics.

Hospital Accommodation.

The total number of hospital beds this year was 6,880 of which 5,988 were reserved for the patients and 892 for the personnel.

Treatment.

In view of the prevailing war time conditions, part of the hospital accommodation was reserved for emergency cases. A total of 95,587 patients were treated in the in-patient departments and 2,375,913 in the out-patient departments. The latter attended treatment 2,258,883 times.

Surgical Operations.

Surgical treatment in hospitals is progressing satisfactorily. The number of surgical operations performed this year was 33,007 in the in-patient departments and 79,524 in the out-patients making a total of 112,031 operations as against 30,890, 81,781 and 112,671 operations respectively in 1941.

X-Ray Examinations.

The number of cases examined and treated by X-Ray this year was 26,746 as against 30,226 in the previous year.

Deaths.

The number of deaths amongst patients treated in the in-patient departments was 7,248 from a total of 95,587 patients, i.e 7.58 per cent.

TABLE No. 71.—SHOWING THE NUMBER OF HOSPITALS

Year	Hospitals in Capitals of Provinces and Governorates	Hospitals in Chief Towns and Districts	Village Hospitals	Out-Patient Clinics
1932	19	43	46	—
1933	19	44	49	—
1934	19	45	50	1
1935	19	45	50	3
1936	19	45	50	3
1937	20	48	60	3
1938	20	48	62	3
1939	20	48	62	3
1940	20	51	62	3
1941	20	52	—	3
1942	20	52	—	4

TABLE No. 72.—NUMBER OF BEDS

Year	No. of Beds	Remarks
1933	6,482	
1934	5,309	Kasr el Aini Hospital has been detached from the Ministry.
1935	5,852	
1936	5,964	
1937	6,341	
1938	6,822	
1939	6,979	
1940	6,926	The Lock Hospitals have been detached from the section.
1941	6,969	
1942	6,880	The village hospitals have been detached from the section.

TABLE No. 73.—DISTRIBUTION OF BEDS

Hospital	1st Class	2nd Class	3rd Class Special	3rd Class Ordinary	Children	Ophth. Branch	Total beds for patients	Beds for Staff	Total No. of Beds
King's	—	—	—	226	—	—	226	81	307
Demerdash	6	14	—	346	—	—	366	123	495
Alexandria	1	6	18	873	—	—	898	120	1,018
Port-Said	2	2	12	165	13	—	194	14	208
Suez	4	11	—	193	—	25	233	17	250
Damietta	2	2	—	90	—	35	129	14	143
Damanhour	2	—	—	107	2	—	111	11	122
Tanta	—	4	—	218	2	—	224	28	252
Mansoura	—	—	—	196	6	—	202	9	211
Mit Ghamr	—	—	—	43	—	13	56	6	62
Zagazig	1	3	—	187	23	—	214	20	234
Shebin el Kom	—	2	—	88	—	—	90	3	93
Benha	—	—	—	108	6	—	114	5	119
Kaliub	—	—	—	74	—	—	74	4	78
Fayoum	—	1	—	100	—	—	101	4	105
Beni-Suef	—	—	—	98	—	—	98	4	102
Minia	1	1	—	85	12	—	99	4	103
Fikriya	—	—	—	22	—	13	35	4	39
Maghagha	—	—	—	—	—	—	—	—	—
Assiut	—	4	—	193	11	—	208	18	226
Mallawi	—	—	—	16	—	11	27	4	31
Souhag	—	2	—	96	—	—	93	6	104
Tahta	—	—	—	26	—	—	26	2	28
Qena	—	1	—	90	—	—	91	4	95
Luxor	6	6	—	50	10	25	97	16	113
Esna	—	1	—	70	24	—	95	14	109
Aswan	1	2	—	51	—	25	79	2	81
Ismailia	—	—	—	46	—	8	54	10	64
Delingat	—	—	—	23	—	12	35	5	40
Kafr el Dawar	—	—	—	27	—	8	35	9	44
Rosetta	—	—	—	28	—	12	40	9	49
Shoubra khit	—	—	—	22	—	12	34	9	43
Edfina	—	—	—	44	—	—	44	6	50
Kom Hamada	—	—	—	29	—	11	40	9	49
Dessouk	—	—	—	35	—	12	47	10	57
Mahalla el Kobra	—	—	—	115	—	—	115	12	127
Samannud	—	—	—	40	—	8	48	7	55
Tayyeba	—	—	—	32	—	15	47	2	49
Sherbin	—	—	—	24	—	12	36	3	39
Faraskour	—	—	—	23	—	8	31	9	40
Simbellawein	—	—	—	28	—	12	40	10	50
Manzala	—	—	—	31	—	—	31	7	38
Aga	—	—	—	36	—	—	36	7	43
Dikernes	—	—	—	47	—	8	55	10	65
Belbeis	—	—	—	24	—	12	36	9	45
Faqus	—	—	—	23	—	12	35	8	43
Minia el Kamh	—	—	—	26	—	8	34	2	36
Tala	—	—	—	23	—	12	35	6	41
Ashmoun	—	—	—	28	—	12	40	7	47
Menouf	—	—	—	36	—	16	52	10	62
Zawyet el Na'oura	—	—	—	32	—	—	32	5	37
Shebin el Kanater	—	—	—	27	—	12	39	9	48
Saff	—	—	—	24	—	12	36	10	46
Ayat	—	—	—	39	—	16	55	10	65
Etsa	—	—	—	35	—	—	35	7	42
Wasta	—	—	—	25	1	12	38	6	44
Beba	—	—	—	29	—	12	41	10	51
Beni Mazar	—	—	—	32	—	8	40	5	45
Fashn	—	—	—	24	—	11	35	6	41
Samalout	—	—	—	40	—	—	40	8	48

TABLE No. 73 (contd.)

Hospital	1st Class	2nd Class	3rd Class Special	3rd Class Ordinary	Children	Ophth.	Total beds for patients	Beds for Staff	Total No. of Beds
Dairout	—	—	—	30	—	12	42	10	52
Al Badary	—	—	—	22	—	8	30	8	38
Sahel Selim	—	—	—	24	—	8	32	8	40
Abutig... ..	—	—	—	30	—	8	38	9	47
Akhmim	—	—	—	28	—	—	28	5	33
Al Baliana	—	—	—	24	—	12	36	9	45
Girga	—	—	—	20	—	12	32	9	41
Dishna	—	—	—	25	—	8	33	9	42
Kous	—	—	—	22	—	12	34	10	44
Nag Hammadi	—	—	—	28	—	14	42	10	52
Kom Ombo	—	—	—	22	—	—	22	3	25
Edfu	—	—	—	27	2	14	43	5	48
Aldirr	—	—	—	—	—	—	—	2	2
TOTAL	26	62	30	5,210	112	548	5,988	892	6,880

Treatment.

The following table shows the number of in and out-patients treated in the various hospitals and clinics during the last five years.

TABLE No. 74.

Year	In-Patients	Out-Patients	No. of Atten- dances at out- patient sections	Patients treated in Village Hospitals	Attendance at Village Hospitals
1938	126,246	2,963,156	5,493,277	1,109,018	2,393,079
1939	131,068	3,275,350	5,907,039	1,239,119	2,705,883
1940	104,475	3,015,066	5,435,477	1,175,477	2,671,104
1941	93,029	2,596,697	2,142,282	—	—
1942	95,587	2,375,913	2,258,883	—	—

TABLE No. 75.—SHOWING HOSPITALS AND PATIENTS TREATED THEREIN

Hospital	In-Patients						Out-Patients	
	Treated during the year	Discharged during the year				Re-maining	New Cases	No. of Visits
		Cured	Re-lieved	Not im-proved	Died			
King's...	2,427	1,322	572	313	73	147	79,479	157,424
Demerdash	5,814	2,949	2,036	257	365	257	141,657	129,666
Alexandria	18,957	4,881	11,127	886	1,663	399	185,999	325,777
Port-Said	3,334	780	1,842	359	219	134	57,518	59,650
Suez	3,829	1,513	1,776	85	315	140	41,402	28,565
Damietta	1,577	710	713	21	54	79	38,406	30,321
Damanhour	2,247	1,139	771	57	172	108	65,282	51,968
Tanta	4,102	2,186	1,299	53	398	166	44,531	22,505
Mansoura	3,430	1,785	1,295	61	196	93	62,603	31,222
Mit Ghamr	972	626	190	14	116	26	44,675	28,376
Zagazig	3,421	1,400	1,527	164	217	113	42,266	37,755
Shebin el Kom	1,431	665	561	17	135	58	53,503	47,132
Benha	1,370	687	517	22	98	46	33,025	12,253
Qalioub	579	235	256	2	61	25	26,843	25,156
Fayoum	2,028	1,344	348	49	181	106	33,209	18,197
Beni-Suef	1,015	407	441	4	123	40	13,582	30,933
Minia	1,672	1,307	221	19	48	77	34,071	24,870
Fikriy	510	234	215	3	38	20	29,095	34,288
Maghaga	—	—	—	—	—	—	27,689	32,105
Assiouti	3,613	2,473	571	171	265	131	55,990	43,978
Mallaw	508	391	51	3	57	6	40,708	28,183
Souhag	1,250	792	227	48	135	48	30,633	23,913
Tahta	702	478	113	—	78	33	31,526	12,122
Qena	807	371	330	24	62	20	29,651	17,149
Luxor	522	276	142	27	33	44	21,511	9,601
Esna	722	394	222	17	41	48	22,808	22,806
Aswan	595	293	226	5	35	36	20,239	27,704
Ismailia	1,137	685	264	5	130	53	27,570	49,001
Delingat	259	107	125	1	13	13	11,673	13,244
Kafr el Dawar	1,083	520	418	14	101	28	46,504	54,141
Rasheed	658	295	177	114	49	23	19,442	40,672
Shoubra khit	397	179	160	17	34	7	11,564	10,574
Edfina	735	195	477	22	16	25	11,664	9,669
Kom Hamada	385	264	54	9	44	14	12,651	14,457
Dessouq	803	599	98	17	55	34	27,266	35,642
Mahalla el Kobra	2,049	918	899	17	152	63	68,853	44,145
Samannoud	578	422	105	—	34	17	21,588	25,955
Tayyeba	756	439	248	3	36	30	—	—
Sheroun	591	307	218	13	42	11	23,359	13,258
Faraskour	649	430	157	12	18	32	25,154	15,210
Simbellawin	563	471	24	1	52	15	22,416	9,276
Manzala	700	469	161	3	45	22	26,890	19,768
Aga	429	295	52	38	24	20	28,049	12,886
Dekernes	1,009	406	486	47	42	28	28,582	20,303
Belbeis	468	238	72	—	47	11	24,377	19,135
Faqus	404	232	114	8	38	12	21,551	12,985
Minia el Qamh	427	265	101	5	36	20	23,343	14,380
Tala	507	239	205	—	42	21	24,771	14,757
Ashmoun	755	507	186	—	35	27	16,312	12,274
Menouf	963	753	104	19	62	25	19,259	19,884
Zawyet el Na'oura	321	200	78	7	20	16	13,632	9,477
Shebin el Qanater	782	572	102	20	53	35	17,258	18,688
Saff	414	297	74	3	24	16	16,087	21,158
Ayat	621	296	237	3	63	22	25,803	19,920
Etsa	673	524	65	21	38	25	21,424	11,470
Wasta	411	174	172	9	36	20	17,850	13,535
Beba	586	476	39	12	44	15	20,473	16,461
Beni Mazar	716	574	60	10	48	24	26,488	24,856
Fashn	459	287	90	10	56	16	17,156	14,853
Samallout	694	306	291	19	50	28	25,179	24,346
Deirout	847	328	383	30	83	23	32,322	28,486

TABLE No. 75 (contd.)

Hospital	In-Patients						Out-Patients	
	Treated during the year	Discharged during the year				Re- maining	New Cases	No. of Visits
		Cured	Re- lieved	Not im- proved	Died			
Badari	421	386	13	—	17	5	26,283	34,977
Sahel Selim	345	202	108	—	24	11	27,095	24,351
Abou Tig	854	407	313	6	96	32	34,014	25,978
Akhmim	392	245	86	5	38	18	15,703	19,852
Baliana	317	184	79	7	33	14	24,089	27,439
Girga	533	425	51	—	42	15	21,704	22,812
Dishna... ..	428	315	74	—	22	17	17,491	10,027
Kous	611	331	221	17	31	11	27,930	24,888
Kom Ombo	490	421	17	3	33	16	15,983	7,491
Edfou	389	169	181	3	21	15	22,408	10,012
Al-Dir	—	—	—	—	—	—	1,980	8,420
Naga Hamadi	544	198	271	3	49	23	26,389	23,668
TOTAL	95,587	46,291	35,551	3,734	7,248	3,313	2,375,913	2,258,883

TABLE No. 76.—OPERATIONS AND X-RAY EXAMINATIONS

Year	In-Patient Operations	Out-Patient Operations	Total	X-Ray Examinations
1938... ..	46,827	78,779	125,606	47,216
1939... ..	50,115	86,511	136,626	65,591
1940... ..	37,815	80,198	118,013	47,088
1941... ..	30,890	81,781	112,671	30,226
1942... ..	33,007	79,524	112,031	26,746

TABLE No. 77.—SHOWING THE NUMBER OF IN-PATIENTS TREATED DURING THE LAST FIVE YEARS AND THE NUMBER OF DEATHS

Year	No. of In-Patients	No. of Deaths	Percentage
1938... ..	126,246	6,724	5.32
1939... ..	131,068	7,056	5.38
1940... ..	104,475	6,822	6.53
1941... ..	93,029	6,943	7.46
1942... ..	95,587	7,248	7.58

TABLE No. 78.—THE CONSTRUCTION PROGRAMME

Province or Governorate	District Hospitals		Province or Governorate	District Hospitals	
	Constructed	Under construction		Constructed	Under construction
Behera...	Delingat ...	Itai el Baroud.	Beni Suef ...	Wasta... ..	—
	Kafr el Dawar ...	Abu Hommos.		Beba	—
	Rosetta ...	El Atf,	Fayoum ...	Itsa	Sinures.
	Shubrakhit... ..	—			
	Idfina	—			
	Kom Hamada ...	—			
Gharbia ...	Desouk	Kafr el Zayat.	Minia	Beni Mazar ...	—
	Mahalla	Belkas.		Samalout ...	—
	Sherbin	Talkha.		Fashn	—
	Samanoud	—			
	Tayeba	—	Assiut ...	Deirout	Manfalout.
Dakahlia ...	Fareskour	—		Badary	Abnoud.
	Simbellawin ...	—		Sahel Selim ...	Wlaga.
	Manzala	—		Abu Tig	—
	Aga	—			
	Dekernes	—			
Kaliubia ...	Shebin el Kanater	Toukh.	Girga	Girga	—
Sharkia ...	Belbeis—Fakus...	—		Akhmim	—
	Minia el Kamh.	—		Baliana	—
Menoufia ...	Ashmoun	Quesna.	Qena	Dishna	—
	Tala	—		Kous	—
	Zawiet Na'oura...	—		Nag Hammadi ...	—
	Menouf	—			
Canal	Ismailia	—	Aswan... ..	Edfou	—
				Kom Ombo ...	—
				El Dirr	—

TABLE No. 79.—SHOWS THE NUMBER OF PROSTITUTES TREATED IN THE GENERAL AND DISTRICT HOSPITALS DURING THE YEAR 1942

Gonorrhœa	Syphilis	Other Diseases	Total
546	89	38	673

TABLE No. 80.— SHOWS THE TOTAL NUMBER OF PATIENTS TREATED FOR VENEREAL DISEASES IN THE GENERAL AND DISTRICT HOSPITALS DURING THE YEAR 1942

In-Patient Sections			Out-Patient Sections		
Gonorrhœa	Syphilis	Total	Gonorrhœa	Syphilis	Total
270	218	488	4,510	7,018	11,528

Chapter XIV.—OPHTHALMIC HOSPITALS

New Units.

During this year, an ophthalmic department was provided within the Boulac Health Group, Cairo.

Ophthalmic treatment was also provided at the following towns:—

Tema.
El Bagour.
Sobk el Dahhak.
Shamma.

Thus the number of ophthalmic units reached 94 (of which 79 are permanent and 15 travelling). Ophthalmic treatment is being extended to all parts of the country according to a constructive scheme which is being gradually executed.

Clinical Work.

The following table No. 71 shows the clinical work done during the year 1942 as compared with that of 1941.

TABLE No. 81

	1941	1942
New patients	1,431,858	1,303,949
In-patients	36,272	32,233
Operations	327,529	291,611
Out-patients attendances	8,970,642	8,110,014

The number of patients who were found blind in one or both eyes, excluding cataract cases causing blindness, was 57,862, *i.e.* 4.4 per cent of all patients examined at the ophthalmic hospitals. By adding the cataract cases causing blindness, this percentage becomes 4.6 per cent.

Acute ophthalmias form 82 per cent of all causes of blindness. The gonococcus is still the predominant factor of infection with acute ophthalmias, its ratio to total microbes being 4.1 per cent.

Age of Patients.

Out of 1,303,949 new patients treated during the year, 91,420 or 7 per cent were under the age of one year; 427,780 or 32.8 per cent from one to 15 years of age; 335,423 or 25.7 per cent from 16 to 30 years of age, and 763,203 or 58.5 per cent from one to 30 years of age.

School Clinics.

Ophthalmic examination, inspection and treatment of pupils are, at present, carried out in 40 Primary Government Schools in Cairo, Alexandria and the Provinces.

A total of 13,172 pupils were examined, of whom 98.5 per cent were found suffering from trachoma in its various stages. About 32 per cent of these were in the serious stages of the disease (Trachoma I and II).

As a result of ophthalmic treatment, the latter percentage fell to 13 per cent.

In this connection it is to be noted that the most accurate estimate of the prevalence of trachoma among pupils, can be obtained in government schools.

There the examination and treatment are carried out in a regular and permanent manner on pupils who are under the constant supervision of the treating doctors.

Other Services.

Ophthalmologists also pay regular visits to other hospitals and institutions to examine and treat eye cases, *e.g.*

The Leprosy Colony and Hospital at Abu Zaabal and Syufia, Cairo.

The Mataria Children Dispensary.

The Fever Hospitals at Abbassia and Embaba.

The Mental Hospitals at Abbassia and Khanka and Home for Weaned Babes at Zeitoun.

In addition to these services, ophthalmologists are occasionally sent to the Frontier Districts to examine and treat the inhabitants.

An ophthalmologist also accompanies the Medical Mission sent to the Hedjaz during pilgrimage to examine and treat pilgrims of all nationalities.

Accommodation.

The number of beds in all the ophthalmic units was 2,146.

Post-Graduate Course of Ophthalmology.

15 medical officers of the Ophthalmic Section attended this course in 1942; of these, 10 were examined in April 1942 in the preliminary course and all passed and 2 in October and 1 passed.

5 medical officers were examined in November 1942 in the final course and 4 passed.

Modern Apparatus and Instruments in Ophthalmic Hospitals.

Ophthalmic hospitals are kept supplied with modern apparatus and instruments to keep pace with new developments in this field.

Chapter XV.—PHARMACIES

Private Pharmacies.

The Ministry granted this year 4 permits for new pharmacies owned by local subjects, 3 of whom are qualified pharmacists and the fourth is not a pharmacist. Three pharmacies owned by non-pharmacist foreign subjects were closed.

The total number of existing pharmacies is 493, of which 410 are possessed by Egyptians (265 by qualified pharmacists and 145 by non-pharmacists) and 83 are possessed by foreign subjects (46 by qualified pharmacists and 37 by non-pharmacists).

Pharmacies Annexed to Health Offices.

During 1941, there were 14 of these pharmacies; one was closed in 1942, leaving 13 in operation. These pharmacies are annexed to health offices in districts having no pharmacies for the purpose of dispensing medicine to the inhabitants.

Cairo Night Service Pharmacies.

The number of night service pharmacies in Cairo remained the same in 1942 as in 1941, i.e. 7 in number. These dispensed 7,865 prescriptions during the night, as compared with 6,357 prescriptions in 1941. Specialities and patented medicines which are issued without prescriptions are not included.

Students of Pharmacies.

During 1942, 58 students of the Egyptian School of Pharmacy and 4 of Foreign Schools have been authorised by the Ministry to pass the statutory period of training in pharmacies, as compared with 47 of the Egyptian School and 22 of Foreign Schools during 1941.

Simple Drug Stores.

Three permits were granted by the Ministry for simple drug stores (2 in Menoufia and 1 in Girga). No such stores were closed down during the year.

Poisonous Drug Stores.

No permits for dealing in poisonous substances were granted to drug stores during the year; two permits were cancelled (1 in Cairo and 1 in Alexandria). Twelve permits were granted for trading in agricultural and industrial substances (3 in Cairo, 5 in Alexandria, 1 in Sharkia, 2 in Menoufia and 1 in Gharbia) and three permits were cancelled (1 in Cairo, 1 in Alexandria and 1 in Assiut). No permits were granted for trading in Narcotics.

Medical Practitioners who prepare drugs in their clinics for their Private Patients.

Gharbia	...	...	...	5	Behera	...	...	...	3	Menoufia	...	...	...	3
Dakahlia	...	...	...	1	Kaliubia	...	...	...	3	Giza	...	...	...	1
Fayoum	...	...	...	1	Beni-Suef	...	...	...	1	Minia	...	...	...	1
Girga	...	...	...	1	Qena	...	...	...	1					

Total = 21 throughout the country.

Registration of Egyptian Specialities.

During the year, 119 permits for preparation and sale of Egyptian specialities were granted and 23 specialities were refused registration.

The actual number of Egyptian specialities registered in the Ministry is 687.

Laboratories Manufacturing Pharmaceutical Preparations.

The Ministry granted 21 permits for laboratories manufacturing pharmaceutical preparations (18 in Cairo, 1 in Kaliubia, 1 in Gharbia and 1 in Giza).

Contraventions to Law.

The number of contraventions brought by the Ministry before the Courts amounted to 298, of which 137 were for trading in poisonous drugs without permits, 24 for practising pharmacy without authorisations and 82 against pharmacists and assistant-pharmacists.

TABLE No. 82.—SHOWING QUANTITIES OF STUPEFACIENTS IMPORTED INTO EGYPT AND EXPORTED THEREFROM DURING 1942

Name of the Drug	Quantities Imported		Quantities Exported	
	Kg.	Gr.	Kg.	Gr.
Opium and its preparations	2	736	—	—
Morphine and its salts	—	162	—	—
Eucodal and its salts	—	—	—	—
Cocaine and its salts	—	981	—	—
Cannabis Indica (tincture and extract)	—	—	—	—

TABLE No. 83.—QUANTITIES OF STUPEFACIENTS CONFISCATED FOR ILLICIT IMPORT AND EXPORT

	Kilo.
Opium	1226
Cannabis Indica	2644
Heroin	—

TABLE No. 84.—QUANTITIES OF STUPEFACIENTS CONSUMED FOR MEDICINAL PURPOSES

	Kilos
Opium and its preparations ...	15
Morphine and its salts	—
Cocaine and its salts	2
Cannabis Indica	2

Chapter XVI.—BILHARZIA AND ANKYLOSTOMA

New Units.

During this year, the following units were opened :—

- (1) Travelling Ank. and Bilh. Hospital No. 35 opened in Edfu on July 18, 1942.
- (2) Ank. and Bilh. Branch opened on December 16, 1942, at Ayat District Hosp.
- (3) Ank. and Bilh. Branch opened on December 31, 1942, at Shubrakhit Dist. Hosp.

The total number of all units is thus 90 of which 6 are Stationary, 44 Travelling, 24 Branches in District Hospitals and 16 School Clinics.

Number of Patients Treated.

The following table No. 85 gives the number of new patients, doses of anthelmintics and number of injections given as compared with the corresponding numbers of the previous year (1941).

TABLE No. 85

YEAR	New Patients	Number of Injections	Anthelmintic Doses	Observations
1941	1,013,704	3,611,757	342,316	Deficiency 25,623 Pts. Increase of 38,320 injections and 10,621 Doses.
1942	988,081	3,650,077	448,534	

The decrease in the number of new patients this year is due to the fact that 11 endemic diseases units were assigned to treatment of cases in Fayoum Province in connection with the Bilharzia eradication scheme. This, however, is balanced by a substantial increase in the number of injections given.

Treatment of Pupils.

47,145 pupils were examined.

9,244 anthelmintic doses were given.

100,292 anti-Bilharzial injections were given.

Treatment of the Territorial Force.

8,678 Territorial soldiers were examined during this year as against 11,834 in 1941.

48,015 injections were given during this year as against 84,261 injections given during the previous year.

5,495 Anthelmintic doses were given during this year as against 6,314 doses given during the last year.

Units Undertaking Treatment in Adjoining Localities.

The state of health among workmen in the Gebel el Asfar Farm and Main Drainage Department was so unsatisfactory that it was decided to treat them and their families for endemic and other diseases. The Ankylostoma branch in Shebin el Kanater Hospital was therefore transferred to the Farm towards the end of the year where 1,907 patients were examined and treatment provided.

Inducing Patients to Continue Treatment.

Despite repeated advice about the importance of completing Bilharzia treatment, it was observed that patients were apt to cease treatment soon after the disappearance of the acute symptoms. It was therefore decided to try the following two methods of inducement :—

- 1.—Providing a free midday meal to patients attending after the 6th injection.
- 2.—Free issue of shoes to patients on completing the course of 12 injections.

(1) The former method was adopted by the Ankylostoma hospital at Shebin el Kanater and No. 6 Ank. Clinic at Tala, with the result that absenteeism was most observed in the intervals between the 1st and 6th injections, i.e. before the free meal was due. 37 per cent of all the patients continued treatment until the 6th injection. From the 7th injection up to the 12th the ratio of attendance rose to 60 per cent. A marked general increase in attendance of both new and old patients was observed during this experiment. In the light of these results, it was decided to provide free meals throughout the course of treatment.

(2) Taking advantage of the scheme for providing the poor with shoes, it was decided to present every patient who receives the full course of 12 injections with a pair of shoes. This was tried in No. 8 Ankylostoma Hospital at Helwan, with the following result.

Before the experiment : the ratio of patients completing treatment was 30 per cent. During the first six months of the experiment, the ratio rose to between 40-48 per cent. This ratio however fell to the normal average of 24 per cent during the last 2 months preceding the transfer of the hospital to Kirdassa where the experiment was resumed with a result of 26 per cent of the patients completing their treatment.

New Treatment Technique.

*Treatment of *Lambia intestinalis* with Atebrin*

The patient is instructed to take a light supper and come to the hospital the next morning without taking any breakfast. Atebrin is then administered in half tablets at a quarter of an hour intervals until 2 tablets have been administered within three quarters of an hour. Four hours later, the patient is given a dose of magnesium sulphate. A week later, the patient is re-examined and treatment repeated to still positive cases.

Introduction of Intramuscular Injections in the Treatment of Bilharzia Patients with Invisible Veins.

The intramuscular injection of Fouadin and Anthiomaline was permitted where Tartar emetic could not be administered intravenously owing to invisibility of patients' veins.

Modification of Treatment Technique.

Abolition of Preliminary Purgatives

It was decided to abolish the use of the preliminary purgative given before the administration of Carbon Tetrachloride, it being sufficient to ascertain that the patient was not constipated.

Introduction of Arsenical Compounds in the Treatment of Amaebiasis.

It has been decided to give a supplementary arsenical (carbarson) treatment to acute dysentery cases under treatment with emetine or Enterovioform.

Revision of Technical Instructions.

All instructions previously issued to Units on admission, diagnosis and treatment of patients have been collected for the purpose of revision and publication in booklet form.

Compulsory Treatment of Bilharzia (Fayoum Region).

Reference was made in last year's report to the issue of the Anti-Bilharzia Law No. 58 in October 1941. The first snail extermination campaign was started in December of that year. The application of the Law to the Region by ministerial arrêté was however postponed until the extermination of snails was complete.

The distribution of the units to the districts to which the law is applicable was as follows:—

TABLE No. 86

Districts	Units	Date of Work
Gharak El Sultani	Hospitals Nos. 25 and 28	May 1942.
Sanhour El Baharia	Clinics Nos. 11 and 15	Sept. 1942.
Tatoun	" " 4 and 14 (will be transferred from Edwa).	
Lahoon	Hospital No. 19 (will be transferred to Shawsahna) and Clinic No. 7.	

Each of the above four units was charged with the examination and treatment of an area of 30,000 of population.

Three other units were left to carry out treatment throughout the province namely, No. 4 Hospital in Fayoum Bandar, No. 14 Hospital in Sinnouris and an Ankylostoma branch in Etsa District Hospital.

The following is a summary of the work accomplished:—

Total of patients who started treatment	30,394
Total receiving 12 injections	28,876
Total receiving 15 injections	19,297
Total Number of injections given	340,770

Kom Ombo District.

All water-ways having been cleared of snails, the Anti-Bilharzia Law was applied and compulsory treatment is in progress.

Treatment of Malaria.

Laboratory assistants are being trained in the examination of blood specimens for Malaria instead of forwarding same to the Research Institute for examination, thus saving time and expediting treatment.

Treatment of Pellagra.

A total of 21,691 cases were diagnosed pellagra of which 16,313 were treated as compared with 14,740 cases diagnosed and 10,293 treated in the previous year.

Treatment of Pupils.

According to an agreement reached between the Ministries of Education and Public Health, parents of pupils will henceforth be required to give a declaration on the beginning of the school year accepting the examination and, if necessary, the treatment of their children for parasitic diseases. No pupil will be accepted in school before that declaration is produced.

Incidents of Poisoning.

During the year, 4 fatal cases of poisoning with Chenopodium oil were recorded. 2 cases of poisoning with Carbon tetrachloride were reported but these were treated and recovered.

Protective Measures and Propaganda.

The Ankylostoma and Bilharzia units spare no effort in driving home to the patients the great importance of completing the treatment course and in showing them the means of protection against parasitic infections. A total of 27,320 lectures were delivered to patients during the year.

The Relation of Certain Canals to the Spread of Bilharzia.

Canals which run through village habitations are closely connected with the spread of Bilharzia, e.g. Kased Canal in Tanta and Kafr Youssef Salama drain in Zankaloun Village. These two canals were inspected and recommendations made in conformity with agreements concluded between the Ministries of Public Works and Public Health.

Research Work on the Spread of Helminthic Infections in Certain Localities.

The population of certain localities namely Hosh Eisa, Abou Matamir and Wafaeiya (Behera Province) were examined with a view to determining the extent of Helminthic infection.

As a result, a unit was dispatched to the last place to undertake the treatment of the patients.

Post Graduate Studies.

During the year, two Medical Officers of the Ankylostoma and Bilharzia Units were delegated to attend a post graduate course in Tropical Diseases.

Chapter XVII.—BILHARZIA SNAIL DESTRUCTION

I.—*The Fayoum.*

A detailed description of the Province and its irrigation and drainage systems is given in the Annual Report of the Bilharzia Snail Destruction Section for 1942. The province was divided into small areas of 5,000 to 10,000 feddans and surveyed. The aim of the survey is to note accurately the location and the number of snails in a canal or drain in view of subsequent treatment. Stations are made along the canals; at each station 3 dips are taken by nets and the snails collected at every dip are recorded in the respective column of the survey books. Notes are also taken about other species of snails, weeds, length, width, depth of the stream, etc.

After treatment a second survey of the Province was made and showed a considerable decrease in the total number of snails found in infested streams. A decrease in the number of infested streams was recorded.

II.—*Treatment.*

Treatment of irrigation channels harbouring Bilharzial snails consists essentially of:—

- (1) *Clearance* of weeds by mechanical means such as hoes and nets. It is preferably done at the low water period of the irrigation rotation. The vegetation is dug up first and then floating debris, snails and eggmasses are dipped out with the nets.
- (2) *Sulphation*.—Copper sulphate is used in a concentration from 15-30 parts per million and left to act for at least 3-4 days. Sulphation is done in streams cleared from vegetation to minimize the absorption of the drug by organic matter and facilitate the dragging of the sacks of copper sulphate. The amount of sulphate required for the volume of water to be treated is filled into sacks of 10 Kgs. which are tied to the middle of a rope and dragged along the stream by two men placed on opposite banks of the stream.

III.—*Research.*

A number of experiments, most of them having an important bearing upon the destruction of snails, have been worked out, including:—

- (1) The Effect of Copper Sulphate on *Planorbis boissyi* and *Bulinus truncatus* in Environmental Ponds before Weed Clearance.
- (2) Life-span and Monthly Growth Measurements of *Bulinus truncatus* and *Planorbis boissyi*.
- (3) Revival after drying.
- (4) Experiment on the Self-fertilization of *Planorbis boissyi*.
- (5) Ecological studies.
- (6) *Cercaria vivax* and its development into *Prohaemistomum vivax*.
- (7) Random Examination of *Bulinus* Snails sent from Fayoum Province for Trematode Infections.

IV.—*Equipment.*

A good supply of hand-nets provided with stout wooden handles and covered with wire gauze of fine and large mesh, were made in the Government workshops. A small workshop for repair of nets and the making of small instruments and furniture such as could not be obtained through the stores was established in the Section. A quantity of Copper Sulphate was bought from the Imperial Chemical Industries as the local supply was insufficient.

Chapter XVIII.—MALARIA

The incidence of Malaria was slightly less this year than in the previous year.

The ratio of positive cases for both the new infections and relapses was 10·3 per cent in Lower Egypt and 4·3 per cent in Upper Egypt as compared with 10·5 and 4·9 per cent respectively in the previous year.

The general ratio of all malaria cases throughout Egypt was 8·9 per cent as against 9·06 per cent in the previous year, excluding the Gambia malaria epidemic which has invaded the southern part of Upper Egypt during the year.

A Permanent Station was created at Wadi El Natroun bringing the total number of permanent stations to 10. The number of travelling stations remained the same this year as in the previous year. Some outposts were, however, set up where these were required.

It was not possible to get Teh El Baroud and Abu Kebir stations ready during the year.

The following table No. 87 gives the distribution of permanent and travelling stations and outposts during the year.

TABLE No. 87

A.—Lower Egypt.			
Behera...	{Edku {Kafir el Dawar ...	Kafir el Dawar 3 ... (Not yet started) ...	Montazah. Nazlia. Busseili, Khorshed.
Dakahlia	Faraskour	{Kafir Abu Nasser 4... {Dekernis Markaz ...	{Mansoura.
Gharbia	{Fowa {Kafir el Sheikh ...	{Dessouk 5	{Shaba, Biala. {Qulline.
Sharkia	—	Belbeis 2	{Faroukia El Magar. {El Faridia.
Canal	Ismailia	—	{Abu Sweir, Nefisha, El Dabiya, {Sarabium, Abu Soltan.
Suez	Suez	—	{El Koubry. {El Shalloufa.
Kaliubia	—	Toukh 6.	—
B.—Upper Egypt.			
Giza	Giza	—	Kafir Ghatati.
Fayoum	Fayoum	Abshawai 1	—
Wadi Natroun	Wadi Natroun	—	—
Frontier Governorates	—	—	{Oases of Baharia, Dakbla and {Kharga.

Blood Specimens and Results of Examination.

Of a total of 142,370 blood specimens examined during the year, 12,794 or 8·9 per cent were returned positive for malaria for both new infections and relapses. Tables Nos. 88, 89 and 90 give the distribution of these specimens according to attendance at malaria units and branches, persons suspected of infection in their homes and persons undergoing a general examination. Table No. 88 deals with Lower Egypt, Canal and Suez Governorates, table No. 89 deals with Upper Egypt and Western and Southern Desert Governorates, and table No. 90 deals with Egypt as a whole.

Perusal of these tables shows that the ratio for the first category appears rather high, being 28 per cent in all Egypt, whereas it drops in respect of the second and third categories to 7.9 per cent and 3.2 per cent respectively. This is explained by the fact that attendance at the Malaria Stations and outposts more often than not are either suffering from symptoms of the disease or rise of temperature, whereas examination of the latter two categories is made for mere suspicion or to get an idea as to the trend of the disease.

New Malaria Infections and Relapses.

Of the total number of 12,794 positive cases, 3,529 were returned new infections by the Malaria Units and Branches or a ratio of 27.5 per cent of all positive cases, the remaining 9,265 being relapses. It is to be pointed out that the number of new infections is an indication of the degree of the spread of malaria mosquito carrier.

Malaria Incidence According to Age Groups.

Tables Nos. 91 and 92 show that the ratio of positive malaria cases is lowest during the first year of life. This being due to the fact that infections in early life are generally new whereas older children and adults are open to new as well as recurrent attacks.

Types of Malaria.

Of 11,397 positive malaria cases recorded in Lower Egypt and the Canal and Suez Governorates, 7,579 or 66.5 per cent were benign (2,120 new infections and the remainder relapses), and 3,818 or 33.5 per cent were malignant (1,153 new and the remainder relapses). No quartan cases were recorded.

Of the 1,397 positive cases recorded in Upper Egypt and the Southern and Western Desert Governorates, 705 cases or 50.4 per cent were benign (107 new and the remainder relapses), and 685 cases or 49 per cent were of the malignant type (148 new and the remainder relapses), 6 quartan cases were recorded in Fayoum and one in Baharia Oasis making a ratio of 0.6 per cent (of these one was new and the remainder were relapses). (*Vide* Table No. 93).

The total number of cases of malaria of the three types recorded throughout Egypt was 12,794 or 8.9 per cent of a total of 142,370 specimens—exclusive of cases occurring in the Southern provinces which were caused by the Gambia mosquito.

Monthly Incidence of Malaria.

Tables Nos. 94 and 95 give the seasonal incidence of malaria in Lower and Upper Egypt. It will be observed that the benign type is highest during June–September, whereas the malignant type is highest during November and December.

The incidence of the quartan type was sporadic in Upper Egypt during the last four months of the year.

Malaria Cases and Deaths notified in the Governorates and Provinces.

Table No. 96 gives the number of malaria cases and deaths notified to the Statistical Department during 1941 and 1942. It will be observed that there is a marked increase in the number of cases and deaths during 1942 than in 1941. This is attributed to the escape of the Gambia mosquito from the Southern regions to Upper Egypt which is the subject of a separate report elsewhere.

Detection of Mosquito Breeding Places.

Special attention was paid to breeding places of mosquitoes which carry malaria as well as of *Culex pipiens* larvæ and *Bilharzia* snails particularly in *Filaria* infected localities. Tables Nos. 97 and 98 demonstrate the extent of the work carried out in Lower and Upper Egypt.

Places where *Anophelines Pharoensis* or *Sergenti*, *bilharzia* snails or *Culex pipiens* breed were given first priority and were reported to the Department of Village Affairs for their extermination.

Control Measures.

The same control measures were adopted this year as in previous years. The control of mosquito larvæ of all species consisted of treating breeding places with insecticides. *e.g.* paris green or mazot, clearing of weeds, drainage of stagnant water and filling in of burrow-pits and small subsoil water collections. A total of 588·850 kilogrammes of Paris Green and 71,799 kgs. of mazot were used this year in both Lower and Upper Egypt. (*Vide* Table No. 99).

Permanent control measures are undertaken by the Department of Village Affairs and consists of filling in of breeding places. During 1941–1942, 65 birkas of a surface area of 50 feddens, 14 kerats and 18 sahms were filled in. These required a total of 265,389 cubic metres of earth which cost L.E. 25,873·850 mms. as shown in tables Nos. 100 and 101. During 1942, 57 birkas of 89 feddans, 4 kerats and 23 sahms surface area were filled in requiring 473,268 cubic metres of earth and costing L.E. 41,507·600 mms.

Other breeding places falling within the property of the E.S.R. the Irrigation Department or other Government Department, were reported to these authorities with a view to their eradication or clearance. In addition to filling in work, the Department of Village Affairs reconstructed the covered drain passing through Zerbi village, Sennouris Markaz, for the drainage of infiltration water. The work was started on January 21, 1942, and a sum of L.E. 695·424 mms. was provided by the Higher Malaria Commission for the purpose. The drain is built of concrete piping 587 metres long and 20 cms. in diameter, joined together by clinker boxes. A shield of gravel 0·75 meter high and 0·15 metre wide was built along the drain for recovering infiltration water. 4 inspection chambers were also built along the drain.

Filariasis (Elephantiasis).

Research work was confined this year to Fareskour area, Dakahlia Province. Some 565 blood specimens were taken of which 15 or 2·65 per cent were returned positive for filariasis. *Culex pipiens* were detected in certain drains in that area.

Treatment and Drugs.

Drugs were distributed to all malaria patients who were examined microscopically. Table No. 102 gives the total amounts distributed of each of these drugs, in both Lower and Upper Egypt.

Anti Malaria Law No. 1.—Rice and Sugar Cane Cultivation.

The Law was not applied this year to any localities other than those to which it was previously applied and where it is still in force.

Propaganda.

The public were again instructed in the symptoms of malaria, the causes of its propagation, the methods of treatment and the means of protection.

Complaints.

All complaints received due attention, especially those concerning the existence of marshes in proximity to habitations or the prevalence of mosquitoes. Where the complaints dealt with stagnant water, growth of weeds or infiltration water, the respective inspections of irrigation were notified for action. The E.S.R. and other Departments were also approached with regard to burrow-pits within their properties.

Researches in regard to Rice Cultivations.

The researches which had been started in 1939 were continued this year. Special areas and localities being selected for the purpose. A 1 per cent Paris green compound was used for dusting irrigation water just before entering the rice cultivation. In this way, an even amount of insecticide is carried with the irrigation water to all parts of the field. The procedure was the same as adopted during the past three years. By this method, it was possible to reduce the amount of Paris green from 6.4 kgs. to 5 kgs. per feddan, and at the same time obtain the same effects on anopheles.

**TABLE No. 88.—SHOWING DISTRIBUTION OF BLOOD FILMS EXAMINED FOR LOWER EGYPT
AND THE CANAL AND SUEZ GOVERNORATES**

Category	No. of Specimens	Positive			
		New	Relapses	Total	%
(1) Patients visiting Stations and Branches	28,631	2,228	5,882	8,110	28
(2) Suspected persons at their residence...	20,409	729	890	1,619	7.9
(3) General examinations	61,217	316	1,352	1,668	2.7
GRAND TOTAL	110,257	3,273	8,124	11,397	10.3

**TABLE No. 89.—SHOWING DISTRIBUTION OF BLOOD FILMS EXAMINED FOR UPPER EGYPT
AND THE GOVERNORATES OF SOUTHERN AND WESTERN DESERTS**

Category	No. of Specimens	Positive			
		New	Relapses	Total	%
Patients visiting Stations and Branches ...	—	—	—	—	—
Suspected persons at their residence... ..	—	—	—	—	—
General examinations	32,113	256	1,141	1,397	4.3
GRAND TOTAL	32,113	256	1,141	1,397	4.3

**TABLE No. 90.—SHOWING GENERAL DISTRIBUTION OF BLOOD FILMS EXAMINED FOR MALARIA
IN EGYPT (LOWER AND UPPER EGYPT, CANAL AND FRONTIER ZONE).**

Category	No. of Specimens	Positive			
		New	Relapses	Total	%
Patients visiting Stations and Branches ...	28,631	2,228	5,882	8,110	28
Suspected persons at their residence... ..	20,409	729	890	1,619	7.9
General examinations	93,330	572	2,493	3,065	3.2
GRAND TOTAL	142,370	3,529	9,265	12,794	8.9

TABLE No. 91.—SHOWING MALARIA CASES IN DIFFERENT AGES IN LOWER EGYPT AND THE CANAL AND SUEZ GOVERNORATES DURING 1942

Region	CHILDREN LESS THAN 1 YEAR			FROM 1 TO 15 YEARS			FROM 16 TO 35 YEARS			ABOVE 35 YEARS		
	No. of Specimens	Positive	%	No. of Specimens	Positive	%	No. of Specimens	Positive	%	No. of Specimens	Positive	%
Iaku ...	452	69	15.2	8,268	1,842	22.2	7,823	1,146	14.6	3,214	487	15.1
Kafr El Dawar ...	140	9	6.4	6,344	97	1.5	1,892	55	2.9	1,175	43	3.7
Dessonk ...	127	34	26.7	2,641	607	22.9	2,498	535	21.4	1,118	118	16.8
Biala ...	591	32	5.4	2,980	660	22.1	2,064	543	26.3	770	154	20
Kafr El Sheikh ...	—	—	—	803	12	1.4	4,105	40	0.9	1,422	15	1
Dekernis ...	174	2	1.1	8,940	165	1.8	1,431	32	2.2	410	7	1.7
Faraskour ...	125	33	26.4	5,411	949	17.5	3,923	629	16.2	678	139	20.5
Belbeis ...	—	—	—	—	—	—	—	—	—	—	—	—
Ismailia ...	721	35	4.8	6,297	487	7.7	5,939	328	5.5	1,728	111	6.4
Suez ...	152	2	1.33	5,123	81	1.5	2,964	69	6	1,714	32	1.9
Toukh ...	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL ...	2,482	216	8.7	46,807	4,900	10.4	32,639	3,377	10.3	12,229	1,106	9

TABLE No. 92.—SHOWING MALARIA CASES IN DIFFERENT AGES IN UPPER EGYPT AND THE SOUTHERN AND WESTERN DESERT GOVERNORATES DURING 1942

Region	CHILDREN LESS THAN 1 YEAR			FROM 1 TO 15 YEARS			FROM 16 TO 35 YEARS			ABOVE 35 YEARS		
	No. of Specimens	Positive	%	No. of Specimens	Positive	%	No. of Specimens	Positive	%	No. of Specimens	Positive	%
Fayoum	58	1	1.7	11,408	368	3.2	2,619	195	17.4	1,807	94	5.2
Baharia Oasis	4	—	—	781	14	1.7	181	—	—	77	—	—
TOTAL	62	1	1.7	12,189	382	3.1	2,800	195	17.2	1,884	94	5

TABLE No. 93—SHOWING NO. OF CASES ACCORDING TO MALARIA SPECIES IN LOWER EGYPT AND THE CANAL AND SUEZ GOVERNORATES AND IN UPPER EGYPT AND THE GOVERNORATES OF SOUTHERN AND WESTERN DESERTS DURING 1942.

Province or Governorate	Benign Malaria				Malignant Malaria				Quartan Malaria						
	Total of Specimens	Total Positive	%	No.	New	Relapses	% to Pos.	No.	New	Relapses	% to Pos.	No.	New	Relapses	% to Pos.
Behera...	29,218	3,748	12.7	2,551	1,058	1,493	68.06	1,197	314	883	31.93	—	—	—	—
Gharbia	19,139	2,820	14.7	2,012	810	1,202	71.3	808	190	618	38.7	—	—	—	—
Dakahlia	21,094	1,956	9.5	1,503	37	1,466	76.8	453	19	434	23.2	—	—	—	—
Kalubia	7,534	1,005	13.3	887	5	882	88.3	118	5	113	11.7	—	—	—	—
Sharkia	8,534	723	8.4	347	39	308	48	376	91	285	32	—	—	—	—
Canal ...	14,686	961	6.5	220	150	70	23	741	497	244	77	—	—	—	—
Suez ...	9,953	184	1.8	59	21	38	32	125	37	88	68	—	—	—	—
TOTAL ...	110,257	11,397	10.3	7,579	2,120	5,459	66.5	3,818	1,153	2,665	33.5	—	—	—	—
Giza ...	6,872	411	3.9	333	9	324	81	78	9	69	19	—	—	—	—
Fayoum ...	24,198	972	4.01	370	98	272	38.1	596	128	468	61.3	—	—	—	0.6
Govern. of South, and West. Deserts	1,043	14	1.3	2	—	2	14.3	11	11	—	78.6	6	1	—	7.14
TOTAL ...	32,113	1,397	4.3	705	107	598	50.4	685	148	537	49	7	1	6	0.06
GRAND TOTAL ...	142,370	12,794	8.9	8,284	2,227	6,057	64.7	4,503	1,301	3,202	35	7	1	6	0.06

TABLE No. 91.—SHOWING MALARIA CASES ACCORDING TO SPECIES IN LOWER EGYPT AND THE GOVERNORATES OF CANAL AND SUÉZ, DISTRIBUTED THROUGH THE MONTHS OF THE YEAR 1942

MONTH	Total of Specimens	Total of Positive Cases	%	BENIGN MALARIA				MALIGNANT MALARIA				QUANTAN MALARIA			
				No.	New	Relapses	%	No.	New	Relapses	%	No.	New	Relapses	%
January	4,897	157	3.2	64	15	49	1.3	93	25	68	1.9	—	—	—	—
February	6,274	195	3	87	15	72	1.3	108	26	82	1.7	—	—	—	—
March	6,880	210	2.9	115	19	96	1.6	95	18	77	1.3	—	—	—	—
April	8,602	264	3	209	40	169	2.4	55	16	39	0.63	—	—	—	—
May	7,148	540	7.5	489	155	334	6.8	51	10	41	0.71	—	—	—	—
June	7,074	856	10.6	809	183	626	11.4	47	5	42	0.66	—	—	—	—
July	9,091	1,019	11.1	905	276	629	9.9	114	44	70	1.2	—	—	—	—
August	14,364	1,552	10.7	1,283	367	916	8.9	269	59	210	1.8	—	—	—	—
September	14,617	2,391	16.2	1,734	568	1,166	11.8	657	185	472	4.4	—	—	—	—
October	11,307	2,037	18	1,025	256	769	90.6	1,012	276	736	8.9	—	—	—	—
November	11,909	1,514	12.6	659	191	468	5.5	855	310	545	7.1	—	—	—	—
December	8,094	662	8.1	200	35	165	2.4	462	179	283	5.7	—	—	—	—
TOTAL	110,257	11,397	10.3	7,579	2,120	5,459	6.8	3,818	1,153	2,665	3.4	—	—	—	—

TABLE No. 95.—SHOWING MALARIA CASES ACCORDING TO SPECIES IN UPPER EGYPT AND THE GOVERNORATES OF SOUTHERN AND WESTERN DESERTS DISTRIBUTED THROUGH THE MONTHS OF THE YEAR 1942

Month	Total of Specimens	Total of Positive Cases	BENIGN MALARIA				MALIGNANT MALARIA				QUARTAN MALARIA			
			No.	New	Relapses	%	No.	New	Relapses	%	No.	New	Relapses	%
January ...	2,402	77	51	2	49	2.1	26	8	18	1.08	—	—	—	—
February ...	2,640	79	54	12	42	2.04	25	11	14	0.9	—	—	—	—
March ...	2,453	51	32	2	30	1.7	18	2	16	0.7	1	—	1	0.04
April ...	2,892	50	48	5	44	1.6	2	—	2	0.006	—	—	—	—
May ...	1,797	34	33	—	33	1.8	1	—	1	0.05	—	—	—	—
June ...	1,586	55	51	1	50	3.2	4	—	4	0.25	—	—	—	—
July ...	1,744	151	80	10	70	4.5	71	17	54	4.07	—	—	—	—
August ...	3,955	142	99	25	74	2.5	42	11	31	1.06	1	—	1	0.02
September ...	3,247	150	78	15	63	2.4	70	17	53	2.15	2	—	2	0.06
October ...	2,096	159	61	10	51	2.9	97	24	73	4.6	1	—	1	0.04
November ...	4,340	326	90	18	72	2.07	235	41	194	5.4	1	—	1	0.02
December ...	2,955	123	28	8	20	0.94	94	17	77	3.1	1	1	—	0.03
TOTAL ...	32,113	1,397	705	107	598	2.1	685	148	537	2.1	7	1	6	0.02

TABLE No. 96.—SHOWING NUMBER OF NOTIFIED MALARIA CASES AND DEATHS
DURING THE YEARS 1941 AND 1942

GOVERNORATE OR PROVINCE	1941		1942		Difference	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Alexandria	1,911	22	1,933	10	+ 22	— 12
Gharbia	768	9	264	4	— 504	— 5
Behera	730	8	1,191	4	+ 471	— 4
Dakahlia	178	1	134	2	— 44	+ 1
Governorates and Frontier Districts	2,017	22	2,685	25	+ 668	+ 3
Sharkia	—	5	447	1	— 118	— 4
Menoufia	147	3	57	—	— 90	— 3
Kaliubia	1,256	4	1,738	—	+ 482	— 4
Cairo	668	16	601	14	— 67	— 2
Giza	138	1	92	—	— 46	— 1
Fayoum	484	—	1,297	7	+ 813	+ 7
Beni-Suef	56	2	72	5	+ 16	+ 3
Minia	89	3	48	1	— 41	— 2
Assiut	72	2	185	1	+ 113	— 1
Girga	21	3	1,879	11	+ 1,858	+ 8
Qena	225	3	1,095	24	+ 870	+ 21
Aswan	5	—	7,219	285	+ 7,214	+ 285
TOTAL	9,320	104	20,937	394	+11,617	+ 290

N.B.—The large increase of cases in the Southern Provinces is mainly due to the prevalence of Gambia mosquito during 1942.

TABLE NO.—97.—SHOWING NO. OF VILLAGES INSPECTED AND BIRKAS HARBOURING EITHER LARVAE OF ANOPHELES, CULEX PIPPIENS OR BILHARZIA SNAILS IN LOWER EGYPT AND CANAL ZONE AND IN UPPER EGYPT AND IN THE OASES.

Province, or Governorate	Station	No. of Villages Inspected	No. of Birkas examined	Birkas free of larvae		Birkas harbouring Anopheles Larvae						Birkas harb. Bilharz. Snails		Birkas harb. Culex Pippiens	
				No.	%	Pharoen.		Multi col.		Sergenti		Other Spec.		No.	%
						No.	%	No.	%	No.	%	No.	%		
Behera...	{ Idku ... Kafir el Dawar ...	2	5	1	20	4	80	—	—	—	—	2	40	—	—
		11	29	23	79	3	10.3	—	—	—	—	2	70	—	—
Gharbia ...	{ Dessouk ... Biala ... Kafir el Sheikh ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		5	11	6	54.5	5	45.5	—	—	—	—	—	—	—	—
Dakahlia ...	{ Biala ... Kafir el Sheikh ...	16	30	15	50	8	26.6	6	20	—	—	—	—	—	—
		23	58	32	55	9	15.5	—	—	—	—	—	—	—	—
Sharkia ...	{ Dekernis ... Faraskour ...	5	6	2	33.3	—	—	—	—	—	—	—	—	4	66
		15	22	12	54.5	10	54.5	20	90.9	1	45.4	5	22.7	7	32
Canal ...	{ Belbeis and its Branches ... Ismailia and its Branches ...	5	511	29	5.6	88	17	19	3.7	22	4.3	33	6.4	—	—
		3	11	6	54.5	3	27.2	4	36.3	—	—	4	36.3	—	—
Kaliubia ...	{ Suez ... Toukh ...	17	34	8	23.5	11	32.6	7	20.6	—	—	—	—	7	20.6
		102	717	134	18.6	141	19.6	56	7	23	3	46	6	18	2.5
Giza ...	{ Giza ...	42	92	—	—	27	29.3	11	10.8	—	—	4	4.3	19	20.6
Fayoum ...	{ Fayoum ... Abshway ...	13	26	3	11.5	20	77	19	80.8	12	46.1	11	42.3	—	—
		1	1	—	—	—	—	1	100	1	100	1	100	—	—
Baharia Oasis ...	{ Baharia Oasis ...	1	50	50	—	—	—	—	—	—	—	—	—	—	—
TOTAL		57	169	53	31.2	47	27.8	31	18.3	13	9	16	13.6	19	11.2
GRAND TOTAL		159	886	187	—	188	—	87	—	36	—	62	—	37	—

TABLE No. 98.—SHOWING No. OF EXAMINATIONS OF DIFFERENT MOSQUITO BREEDING PLACES IN LOWER EGYPT AND CANAL ZONE, IN UPPER EGYPT AND THE GOVERNORATES OF SOUTHERN AND WESTERN DESERTS DURING 1942

Province or Governorate	Unit	Burrow-Pits	Railway Ditches	Unburnt Brick Pudding	Wells and Sakias	Drains	Canals Irrig. Water courses	Ponds	Marshes	Rice Cultivation	Sugar Cane Cultivation	Samar Cultivation	Lakes	Other Places
Behera...	Idku ...	588	—	—	—	4,662	3,120	56	203	—	—	—	538	—
	Kafr el Dawar ...	73	31	—	—	457	140	12	11	47	—	—	—	—
	Dessouk ...	—	—	—	—	585	—	5	—	4	3	—	—	—
Gharbia ...	Bialla ...	—	—	—	—	—	—	—	—	—	—	—	—	—
	Kafr el Sheikh...	—	—	—	—	781	—	436	—	41	—	—	—	639
Dakahlia ...	Dekernis ...	23	45	—	—	324	88	412	48	91	—	—	—	—
	Faraskour ...	—	—	—	1	371	4	20	—	4	—	—	—	1
Sharkia ...	Belbeis and its Branches	4	—	—	10	90	—	29	—	—	—	—	—	13
Kalubia ...	Toukh ...	—	148	—	26	—	—	570	—	169	—	—	—	—
Canal ...	Ismailia ...	609	158	—	43	3,263	715	2,728	86	—	—	—	—	2,730
Suez ...	Suez ...	79	47	—	—	5,136	194	248	—	—	—	—	—	—
TOTAL ...		1,376	419	—	80	15,669	4,256	4,514	348	356	3	—	538	3,353
Giza ...	Giza and its Branches	—	2	2	—	37	36	92	8	2	—	—	—	—
	Fayoum ...	—	274	115	—	760	395	853	—	—	—	—	—	—
	Abshway ...	—	190	42	—	1,197	344	21	—	28	—	—	—	—
Western Desert Governorate	Baharia Oasis ...	3	—	—	2	7	—	—	—	3	—	—	—	—
TOTAL ...		3	466	159	2	2,001	775	966	8	33	—	—	—	—

**TABLE No. 99.—SHOWING QUANTITIES OF PARIS GREEN AND
MAZOUT CONSUMED THROUGHOUT THE YEAR 1942**

District	Province or Governorate	Station	Paris Green in Kilograms	Mazout in Kilograms
Lower Egypt and Canal Zone:	Behera ...	Idkou	34·550	6,853
		Kafr el Dawar ...	35	1,500
	Gharbia ...	Dessouk	25	—
		Bialla	15	—
		Kafr Abu Nasir	10	10,912
	Dakahlia ...	Faraskour	51	428
		Dekernis	8	369
	Sharkia	Belbeis	15	1,000
	Kaliubia	Toukh	22	2,500
	Canal	Ismailia	138	17,069
Upper Egypt:	Suez	Suez	80	3,000
	TOTAL		425·550	48,111
	Giza	Giza	1·500	13,592
	Fayoum ...	Fayoum	152	7,256
		Abshway	9·800	2,840
	TOTAL		163·300	23,688
	GRAND TOTAL ...		588·850	71,799

TABLE No. 100.—SHOWING BIRKAS FILLED IN DURING THE FISCAL YEAR 1941-1942

Province	No. of Birkas	Total Area			Vol. of Soil in C.Ms.	Total Cost	
		F.	K.	S.		L.E.	MILL.
Behera... ..	6	9	—	1	41,885	—	—
Dakahlia	14	10	17	8	44,749	—	—
Gharbia	15	11	14	12	53,712	—	—
Menoufia	7	2	13	14	22,223	—	—
Kaliubia	17	10	5	15	45,770	—	—
TOTAL	59	44	3	2	208,339	—	—
Aswan	—	—	—	—	—	—	—
Fayoum	—	—	—	—	—	—	—
Beni Suef	4	3	9	1	40,766	—	—
Giza	2	3	2	15	16,284	—	—
TOTAL	6	6	11	16	57,050	—	—
GRAND TOTAL	65	50	14	18	265,389	—	—

TABLE No. 101.—SHOWING BIRKAS FILLED IN DURING THE FISCAL YEAR 1942-1943

Province	No. of Birkas	Total Area			Vol. of Soil in C.Ms.	Total Cost	
		F.	K.	S.		L.E.	Mill.
Behea	2	7	7	8	39,993	3,144	218
Dakahlia	8	19	12	2	56,075	4,522	660
Gharbia	14	29	20	21	198,993	1,317	439
Menoufia	3	3	—	2	23,762	2,371	700
Kalioubia	13	11	11	12	63,626	7,637	117
Sharkia	9	9	3	21	20,941	4,180	205
TOTAL	49	78	7	13	403,990	35,773	339
Aswan	—	—	—	—	—	—	—
Fayoum	3	3	3	11	16,170	1,127	858
Giza	5	7	17	23	53,108	4,606	40
TOTAL	8	10	21	10	69,278	5,734	261
GRAND TOTAL	57	89	4	23	473,268	41,507	600

TABLE No. 102.— SHOWING TOTAL QUANTITIES OF MAIN DRUGS DELIVERED FOR
TREATMENT DURING YEAR 1942

A.—Quinine.

(2 grains)	104,016 Tablets.
(5 grains)	291,964 „
(Chocolate)	21,342 „

B.—Plasmochine.

(Simple 1 Cgm.)	4,304 „
(„ 2 „)	5,942 „
(Comp. 0.5 „)	35,967 „
(„ 1 „)	24,786 „

C.—Atebrine 4,237 „

D.—Iron 267 „

Part VI.—RESEARCHES AND LABORATORY EXAMINATIONS

Chapter XIX.—SUMMARY OF THE WORK OF THE DEPARTMENT OF PUBLIC HEALTH LABORATORIES

1.—*Bacteriological Section.*

The total number of specimens examined bacteriologically in the Central, Provincial¹ and Branch Laboratories, during the year 1942 was 546,391.

2.—*Pathological Section.*

1,688 specimens were examined during the year under review in this section and the Branch Pathological Laboratory, Alexandria.

3.—*Chemical Section.*

The total number of samples examined chemically in the Central Laboratories, Assiut and Tanta Chemical Laboratories during the year 1942 was 105,098.

4.—*Water Section.*

(a) Bacteriological Service.

The total number of samples of water, aerated water, ice and syrup examined by this section, during the year 1942 was 8,665.

(b) Chemical Service.

During the year, some 609 samples of water have been subjected to chemical analysis.

5.—*Antirabic Institute and Hospital.*

During the year 1942—7,217 patients attended the Institute; out of these 6,958 were fully treated.

6.—*Serum and Vaccine Institute.*

The following vaccines and sera have been prepared during the year 1942 :—

(1) T.A.B.	865,955 ccs.
(2) Anti-Plague vaccine ...	11,525 „
(3) Cholera vaccine	62,375 „
(4) Diphtheria prophylactic (Formol Toxoid) ...	23,175 boxes, each box for one person.
(5) Calf Lymph vaccine	14,433,050 doses.
(6) Diphtheria Antitoxin	910 ampoules, 10 cc. containing 4,000 Inter. Units.
	400 „ „ „ 6,000 „
	286 „ „ „ 7,000 „
	888 „ „ „ 8,000 „
	528 „ „ „ 10,000 „
	637 „ „ „ 12,000 „
	1,966 „ 5 cc. „ 4,000 „
(7) Serum Anti-Tetanus	11 litres.
(6) Anti-scorpion serum	16 „

Chapter XX.—FOUAD I INSTITUTE AND ENDEMIC DISEASES HOSPITAL.—PARASITOLOGY DEPARTMENT

A.—Schistosomiasis

The Destruction of Snails by the Chemical Method

Based upon experiments done previously in the Laboratory (Khalil, 1924) ⁽¹⁾ and in the Dakhla Oasis (Khalil, 1927 and 1929) ⁽²⁾ where a successful attempt at eradication of the snail intermediate host of *Schistosoma haematobium* with copper sulphate was made, another attempt was made in a vast area on a basis which differs in technique from the previous one. The object of this attempt was, in the main, as follows:—

- (1) To eradicate the snail intermediate host on a large scale by the chemical method.
- (2) To determine the cost of the chemical method of snail destruction.
- (3) To compare the chemical method with the clearance method.

The area chosen was Teftiche Wadi Kom-Ombo, Aswan Province, Egypt. This Teftiche covers an area of 30,000 acres of cultivated land, and is irrigated all the year round by a system of about 90 canals and branches, all of which are supplied from a main big canal called "Canal Cassel." The water is raised to this canal by means of 4 pumps directly from the Nile. The lengths of these canals, "Cassel" excepted, exceed 200 kilometres and their tributaries, most of which were also treated, exceed the figure of 1,000 kilometres.

An expedition composed of one doctor and 5 experienced assistants was sent early in 1940. About 200 stations for examination were established on the canals, mainly at the head and tail of each. The examination was carried out: (a) before the treatment to determine the degree of infestation with the snails and to find out the canals, if any, not requiring treatment; (b) about 3 weeks after the treatment to determine the immediate effect of the method and (c) at intervals of one month, when possible, or of two months, to determine the stability of the method and to fix data for future treatments.

Method of Examination.

A method of examination of the canals in question for snails had to be devised. It should be uniform in all canals, should also give reliable results and lastly it should be quick and easily carried out, as the area in question was large and the means at the disposal of the expedition were limited. Such a method of examination complying more or less with these requirements was found in a trap made of a freshly cut branch of a palm-tree. This is available in every locality in Egypt. It was submerged under the water by fixing it to a piece of stone to allow it to rest on the bed of the canal. The branch was fixed to a piece of string, the other end of which was fastened to some object on the edge of the canal. The trap was left in that condition between 5-7 days of irrigation, after which it was carefully raised from the water and all snails found on the leaves were sorted and counted. A series of tests were made to determine the reliability of this trap and the results were satisfactory, allowing for a margin of error amounting to 10-15 per cent. Reference regarding this trap is found in the account given below, pages 125-127.

The preliminary examination of the locality by this trap at the two hundred stations was made during the month of April, 1940. The result of this examination is found in Khalil-Bey and Hummy (1940) ⁽³⁾ table 2, pp.733-739. The conclusion reached from this preliminary examination is summarized in the following:—

- (1) All miskas in which *Potamogeton crispus* is found should be treated, whether or not snails have been found in them.
- (2) All miskas drawing their water from the lower third of a canal infested with *Bulinus* should be treated.

⁽¹⁾ Khalil, M. (1924), Ancylostomiasis and Bilharziasis in Egypt. Reports and Notes of the P.H. Laboratories, No. 6., D.P.H., Ministry of the Interior, Cairo, Egypt, pp. 195.

⁽²⁾ Khalil-Bey, M. & Abdel-Azim, M. (1928). On the History of the Anti-Bilharzial campaign in the Dakhla Oasis. Journ. Egypt Med. Ass., Vol. 21 (3), p. 102-105.

⁽³⁾ Khalil-Bey, M. and Hummy, I. S. (1940). The Eradication of Bilharzia from Teftiche Wadi Kom-Ombo. Journ. Egypt. Med. Ass. Vol. 23 (10-11), pp. 720-729, with 8 tables, 14+3 figs. (Arabic).

- (3) Large ponds formed at the head of miskas and caused by the rush of water from the supplying canal should not be overlooked.

The following miskas should be left untreated:—

- (1) Miskas in which only *Physa* or snails other than *Bulinus* can live.
- (2) Miskas with sandy and clean beds, and also those which are very shallow, and which usually completely drain their water at the end of every period of irrigation owing to their high level.
- (3) Miskas supplying areas of land not to be cultivated before the lapse of a few months, the so-called "fallow land."

Technique employed.

A special technique has been devised and is explained in some detail (loc. cit. p. 740). It is applicable under the following two fundamental conditions:—

- (1) The canals must be practically empty at the commencement of the treatment.
- (2) The addition of the copper sulphate is made at the time when the canals are refilled.

The work was thus rendered much easier, and it was possible to complete it in a very short time.

The copper sulphate was added in dry form and the outfit required was composed of: 30 air-raid-precaution sand bags, 15 calico bags of each of three different sizes, one of which fits the sand bags, 12 iron or wooden wheels, a quantity of ropes and strings and a few poles. The bags contained, when full, 1 to 16 kgs. of the dry drug.

The bags, filled with the appropriate amount of the drug, were placed at certain chosen points on the canal in such a way that the incoming water passes through them. Special consideration is given to: (a) the amount of water passing; (b) the time required to fill the canal to the desired level and (c) the diameter of the canal at the selected point. It was thus possible to have the contents of a bag of 16 kgs. completely dissolved in from 15 to 180 minutes.

In canals with regulating bridges the technique followed was different from that used for canals without regulators. For the latter a simple formula has been made.

It has thus been possible to obtain a fairly even distribution of the drug at the end of the process of treatment.

Both at the commencement of the treatment and immediately after concluding it, every water outlet, whether to or from the canal, must be closed and remains so during a period of 5 days from the start.

At the end of this period the canals were reopened for irrigation without further restriction.

To avoid interception by the vast number of miskas occurring between the different canals, the latter were divided into 16 groups, separated from one another by large drains. Each group was treated in a single day, with a few exceptions.

Chemical examination of the water at the conclusion of the treatment was made to check the distribution of the drug. It was, however, not continued throughout the campaign, as certain difficulties arose.

Other difficulties encountered were:—

- (1) Several of the snail traps were lost, and in some cases this occurred more than once at the same station. This question should receive due attention. The traps should be placed in such a way as to escape the notice of passers-by.

- (2) Our movements along the canals, which was frequently necessary, was greatly limited owing to slow means of communication. A motor-cycle rendered valuable service during the preliminary survey. The motor-trolley, so kindly put at our disposal by the Company, was very useful.

- (3) It has been intended from the start to close and seal all gates on the head of each canal and inspect the seals regularly during the 5-days period. Lack of time and personnel prevented us from carrying out this plan to the letter. Inspection, which was done occasionally, revealed certain indiscriminate actions which had a deteriorating effect on the result of the treatment of some canals. Chaining and locking the gates is advisable.

(4) Big-disappointments have been met with in the treatment of a few canals, which were apparently empty at the start of the treatment, although they contained large amounts of water in their distant, lower portions. Such water collects at the tail of the canal, which is usually more infested with snails, and remains free of the drug. Unless this is guarded against, a complete failure is certain. It is therefore advisable not to rely on outside information as to the state of the canal prior to treatment.

Immediate result of the Treatment.

Three weeks after the treatment of the canals, about 40 stations were re-examined by the snail trap. The result is given in the following table, together with the result prior to treatment.

TABLE No. 103

Station No.	No. and relative size of palm-leaves		No. of Bulinus		No. of Physa		No. of Planorbis (2)	
	Before	After	Before	After	Before	After	Before	After
	Treatment (1)		Treatment		Treatment		Treatment	
2	91 m.	—	74	neg.	12	neg.	28	neg.
7	134	105 l.	16	12	1	1	8	neg.
9	169	69 s.	42	15	4	neg.	24	1
9b	196	67 s.	194	7	5	neg.	14	neg.
12	105 m.	58 m.	338	20	33	neg.	4	neg.
13	98 m.	110 m.b.	64	neg.	8	neg.	12	neg.
14	95 l.	132 l.b.	87	404	neg.	neg.	10	9
20	117	78 m.b.	30	3	neg.	neg.	4	1
23	117 m.	72	25	3	1	neg.	70	neg.
24b	—	—	26	neg.	7	neg.	3	neg.
29	72 s.	57 m.	22	1	neg.	neg.	neg.	neg.
33b	85 l.	68 m.	892	18	130	1	1	neg.
40	75 m.b.	100 m.b.	352	35	109	neg.	1	neg.
51	124 m.	102 s.	63	12	83	neg.	neg.	neg.
55	59 m.	76 l.	2	neg.	4	2	1	neg.
57	126 m.	—	15	17	117	neg.	neg.	neg.
63	97 m.	103 l.	1	3	30	neg.	neg.	neg.
67	45	—	4	neg.	10	neg.	neg.	neg.
68	70 l.	90 l.b.	72	41	170	2	12	neg.
69	101 m.	92 l.b.	22	7	1	neg.	1	neg.
72	95 m.	—	57	39	9	neg.	neg.	neg.
74	62 m.	—	16	neg.	150	neg.	1	neg.
78	105 m.	102 m.	1	1	42	neg.	neg.	neg.
80	123 m.	100 m.	22	neg.	3	neg.	neg.	neg.
85	134 b.	56	206	11	9	neg.	14	neg.
86	93 m.	55 m.	40	1	2	neg.	neg.	neg.
89	103 m.	—	4	neg.	68	neg.	neg.	neg.
90	95 l.b.	—	87	8	156	neg.	neg.	neg.
102	125 m.	112 l.b.	15	60	6	neg.	1	neg.
110b	92 m.	—	28	neg.	55	neg.	neg.	neg.
113b	94 m.	105 m.	81	neg.	36	neg.	35	neg.
117	127	—	5	2	3	neg.	1	neg.
140	95 l.	104 l.b.	90	6	10	5	3	neg.
145	161 m.	89 l.b.	87	neg.	1887	9	1	neg.
146	115 m.	—	5	neg.	21	neg.	neg.	neg.
147	88 l.	91 l.b.	55	6	140	8	11	neg.
172	133 m.	—	47	neg.	774	neg.	neg.	neg.
176	110 m.	114 m.	50	25	510	neg.	neg.	neg.
185	108 m.b.	87	167	8	12	neg.	49	neg.
190	83 m.	43 m.	280	6	30	neg.	3	neg.
201	103 m.	—	59	neg.	36	neg.	neg.	neg.

b. = broad.

l. = large.

m. = medium.

s. = small.

(1) This number is usually not given in negative cases.

(2) *Planorbis laurenti*. *P. boissyi* is not present in this locality.

A study of the previous table shows clearly that:—

- (1) Physa is almost completely eradicated from the canals treated.
- (2) Bulinus was eradicated from 14 out of 41 stations examined.
- (3) A reduction of from 50-100 per cent of Bulinus was achieved in most of the stations.
- (4) In 5 out of 41 stations the treatment must be considered to have failed and their corresponding canals have accordingly been treated again.

From the effect on Physa it is concluded that in every case the drug reached its destination by the technique employed.

Regarding Bulinus, two probable conclusions have been drawn. The first was that the distribution of the drug was markedly not even, and the second, that the dilution of 5 per million was not sufficient to kill all the Bulinus-snails.

One or both of these two possibilities might have been the cause of the incomplete success achieved, or failure suffered, in these few canals. While it is not intended to exclude the occurrence of a certain extent of uneven distribution, the unsatisfactory result in these canals is attributed mainly to the insufficient amount of drug used. This is made evident in five experiments carried out in the laboratory on a large number of snails. The result of these experiments⁽¹⁾ shows that not all the Bulinus snails, especially the large forms, succumb readily to the action of the drug at the dilution used (5 per million). To this is added that canals in which the chemical examination gave a concentration of the drug calculated at about 7 per million became absolutely free from non-operculated snails.

It is therefore suggested that a concentration of 6-7 per million might be used in future with an addition of 1 per million for a would-be uneven distribution.

The failure in the 7 canals referred to above is also partly attributed to the difficulties encountered and mentioned before.

The Effect of Copper Sulphate on Potamogeton crispus.

Generally speaking, no deteriorating effect of the drug on *Potamogeton crispus* was observed. Only in 2 cases, where a concentration as high as 20 per million was approached, did this plant disappear completely from the canal bed.

The Effect of Copper Sulphate on Man and Animal.

No ill-effects have been observed during the campaign on man or animal, although many people reported that they have used the treated water for drinking and other purposes.

Delayed urination was, however, observed in some camels which drank from an isolated locality especially reserved to test the effect of high concentrations of the drug on *Potamogeton crispus*.

Effect of Copper Sulphate on Agriculture.

As for agricultural plants, there is no question of any harm that might be caused to them by the drug. The treated canals are closed for irrigation during the period of treatment. At the end of this period only a trace, less than half per million, is found in the water, as the drug is gradually eliminated from the water by natural process. Moreover, on resuming the irrigation, the incoming fresh water dilutes the water-content of the treated canal to such an extent that it will be practically impossible to trace the drug in the irrigation water.

⁽¹⁾ Vide Khalil Bey, M. and Hilmy, I. S. (1940), J. Roy. Egypt. Med. Ass., p. 768-769.

Canals Free from Snails.

Branch 3 Cassel Kebli and Canal Suarez with its six branches were the only canals found free from snails. The water of these canals was examined chemically and a trace of copper in a soluble form was found in it. As the first of these canals receives its water directly from the waste-water pipe of the sugar factory of Kom Ombo and drains it to Canal Suarez, a sample of the canal bed near the waste-water outlet of the factory was collected for chemical examination. It was found to contain 150 milligrams of copper in an insoluble form in every 100 grams of the dried sample. This copper originates from the bronze boilers of the factory during their grinding. Certain conclusions are drawn from these findings and further examinations are in progress.

Re-Examination.

Three months after the work was concluded, the area was inspected again and many of the canals were examined by the wire-net, with good results. *Potamogeton crispus* disappeared completely. This is evidently due to the action of the flood-water as it usually occurs every year. It was also not possible to obtain any snails, or only a few could be found, by means of the net in places where this was easy and large amounts could be secured before the canals were treated.

It was decided, therefore, to examine, by the snail trap, some 22 stations and the results are given in the following table.

TABLE No. 104

Station number	No., rel. size of palm-leave			No. of Bulinus			No. of Physa		
	Before Treatment	First	Second	Before Treatment	First	Second	Before Treatment	First	Second
		Examination			Examination			Examination	
		After Treatment (1)			After Treatment			After Treatment	
2	91 m	—	103 m	74	neg.	3	12	neg.	neg.
6	74 m	(2)	102 m	8	(2)	3	32	(2)	7
7	134	105 l	90 m	16	12	2	1	1	neg.
9	169	69 s	138 m	42	15	neg.	4	neg.	neg.
9b	196	67 s	131 m	194	7	neg.	5	neg.	neg.
12	105 m	58 m	68 m	338	20	neg.	33	neg.	neg.
14	95 l	132 lb	120 m	87	404(3)	67(4)	neg.	neg.	neg.
33b	85 l	68 m	60 m	892	18	6	130	1	neg.
68	70 l	90 lb	74 m	72	41	29	170	2	neg.
90	95 lb	—	94 l	87	8	4	156	neg.	neg.
102	125 m	112 lb	—	15	60	neg.	6	neg.	3
110b	92 m	—	20 s	28	neg.	neg.	55	neg.	3
113b	94 m	105 m	105 m	81	neg.	neg.	36	neg.	neg.
117	127	—	86 s	5	2	neg.	3	neg.	neg.
140	95 l	104 lb	102 m	90	6	19	10	5	7
145	161 m	89 lb	54 l	87	neg.	neg.	1,887	9	1
146	115 m	—	24 m	5	neg.	1	21	neg.	neg.
147	88 l	91 lb	—	55	6	neg.	140	8	neg.
172	133 m	—	—	47	neg.	neg.	774	neg.	neg.
176	110 m	114 m	112 m	50	25	32	510	neg.	1
179b	—	(2)	98 m	8	(2)	neg.	2	(2)	neg.
190	83 m	43 m	106 m	280	6	3	30	neg.	neg.

(1) This number is not given in negative cases.

(2) Not examined by the snail trap immediately after treatment.

(3) All snails of a large size.

(4) All snails of a small size.

The above table shows a further reduction of the snail population in all but 5 stations. This improvement could not be attributed to the action of the flood water, as in the case of *Potamogeton*, but rather to the treatment the canals have undergone. Best evidence for this is obtained by considering the result in the 5 stations mentioned above. Special reference is also made to another station (No. 14), which gave a number of 67 *Bulinus*-snails, all of which of a size not exceeding two millimetres. Had the flood water had any detrimental effect on the snails, such young forms would not have been able to escape their fate. When to this is added the result of the other 5 stations, in which the number of snails remained stationary or even increased, it may be safely concluded that a direct action of the Nile flood on the snail-population of irrigation canals does not exist.

The Cost of the Chemical Method.

Following is a detailed list of all expenditure which have been made during this campaign.

TABLE NO. 105.—EXPENDITURE

Kind	Total		Cost per acre in milliemes (¹)	Borne by
	L.E.	mills.		
Copper sulphate 2·91 tons L.E. 41·4 per ton	120	598	4·0199	Kom-Ombo Company.
Delivery Kom-Ombo				
March 1940				
Labourers	15	440	0·5147	Kom-Ombo Company.
Assistants	61	360	2·0453	Government.
Utensils	10	059	0·3353	8·244 K.O. Co. 1·815 Govern.
Total cost	207	457	6·9152	

(¹) 1 millieme = 1/48 shilling or 1/250 dollar.

The above expenditure did not include the salary of the M.O. in charge of the campaign. This had been calculated at L.E. 0·001 to every acre. It should also be borne in mind that the price paid for copper sulphate was high, due to the war and that in future it will be reduced to about 50 per cent; this will make out for any additional increase in expenditure such as the M.O.'s salary and the increase in the amount of copper sulphate to be used in future.

Progress of the Treatment.

Result during the Two Years Following the Treatment.

The further development of snails in this area during two years following the application of copper sulphate is shown in graphs I, II and III, which show the result of a 2-monthly examination of the canals in question. Graph I shows that, after an abrupt reduction of the *Bulinus* population in the canals to 2·4 per cent in June, 1940, the improvement continued until the month of November of the same year (0·6 per cent) as compared with a control area where the corresponding figures were 100 per cent and 27·5 per cent respectively.

After November, 1940, the number of snails began to increase steadily until it reached its maximum of 9·3 per cent in June, 1941 (Graph II). The last examination of these stations was concluded towards the middle of July, 1942 (Graph III); the number of snails was then found to be 6·5 per cent, compared with 2·0 per cent in July, 1940, and 6·3 per cent in July, 1941.

Table No. 106 shows the percentage of snails obtained during the corresponding month of the two-years period :—

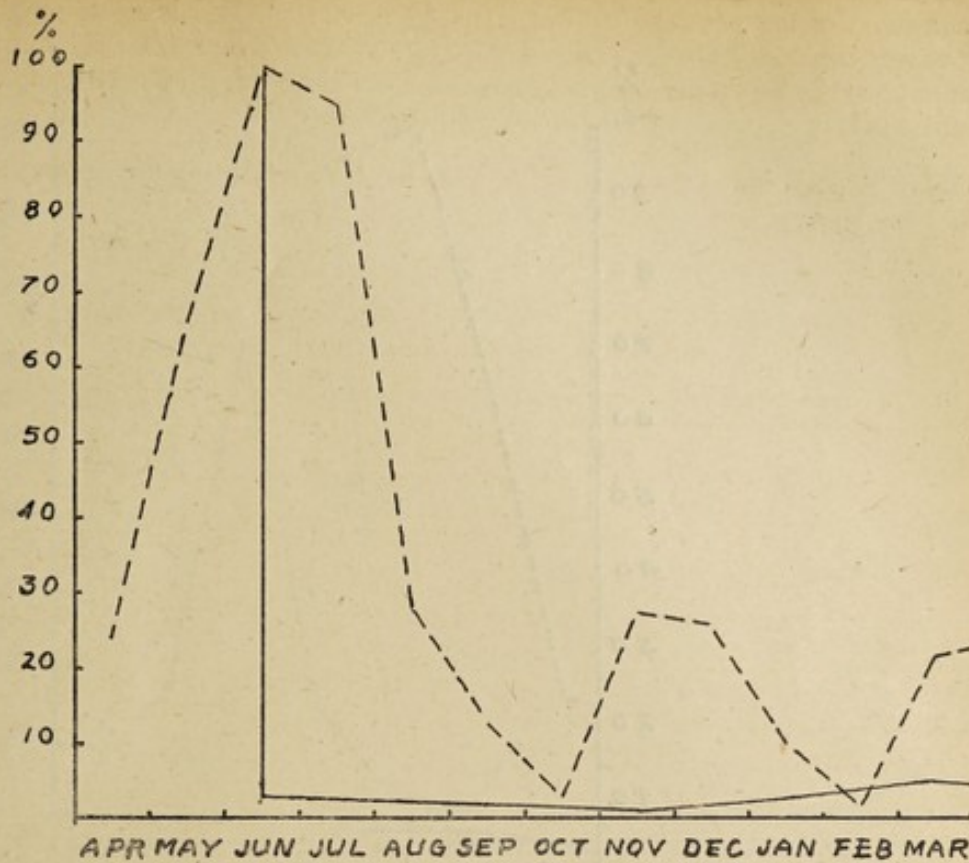
TABLE NO. 106.—COLLECTIVE STATE OF THE CANALS DURING TWO YEARS
FOLLOWING APPLICATION OF COPPER SULPHATE

Months	1940	1941	1942
March	—	5%	2·5%
April	22% ⁽¹⁾	4%	5%
June	100 % ⁽¹⁾ 2·4% ⁽²⁾	9·3%	—
July	2%	6·3%	6·5% ⁽³⁾
September	1·4%	1%	
November	0·6%	0·7%	

(¹) Before copper sulphate treatment.

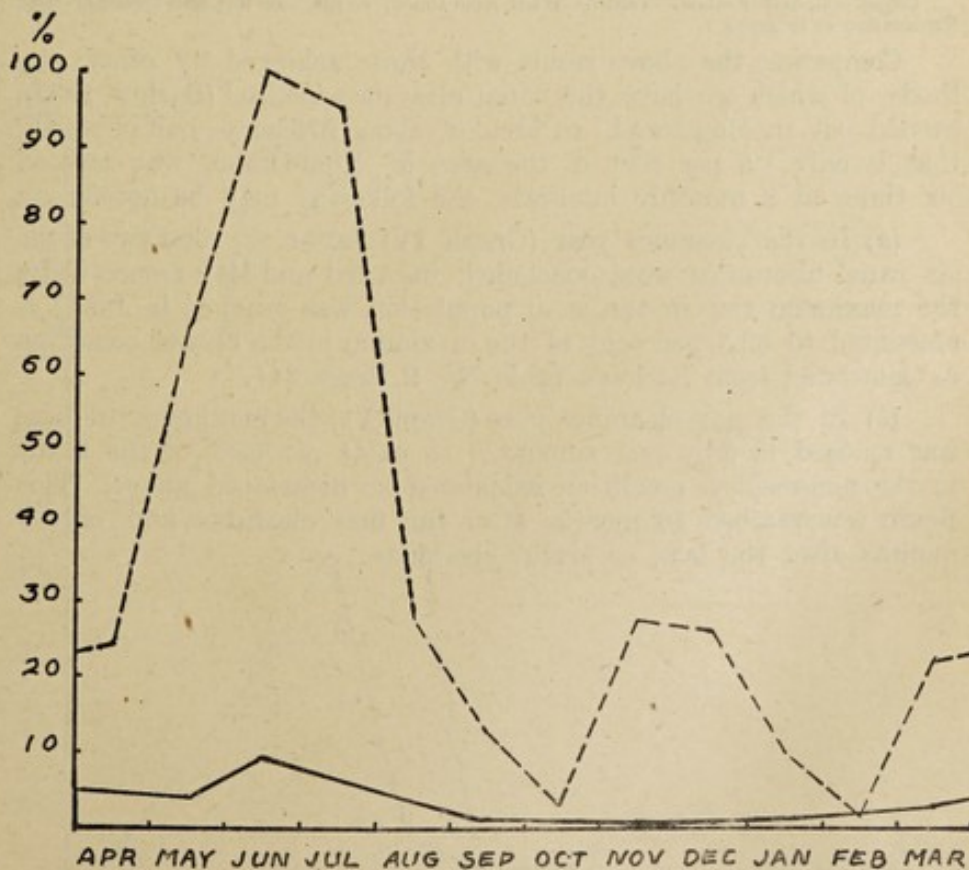
(²) After copper sulphate treatment.

(³) Last examination of the locality.



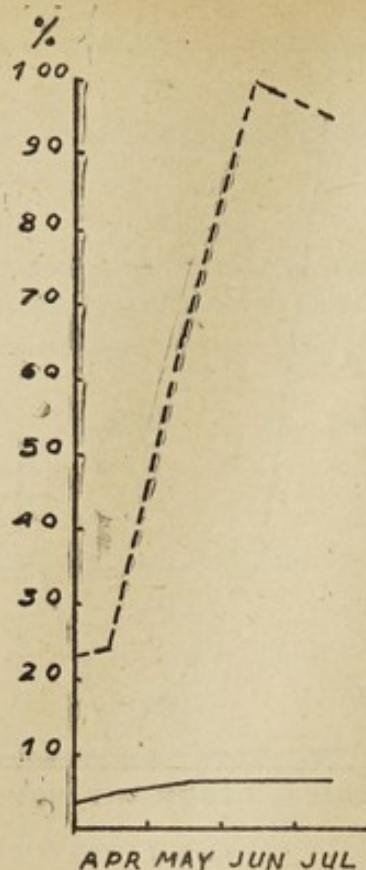
GRAPH I.

Copper sulphate method. Teftiche Wadi Kom-Ombo, Egypt. Treatment year. Graph-line in solid black percentage of snails in the treated canals. Graph-line in spaced black shows state of canals in a control area.



GRAPH II.

Copper sulphate method. Teftiche Wadi Kom-Ombo, Egypt. First post-treatment year. Explanation as in graph I.



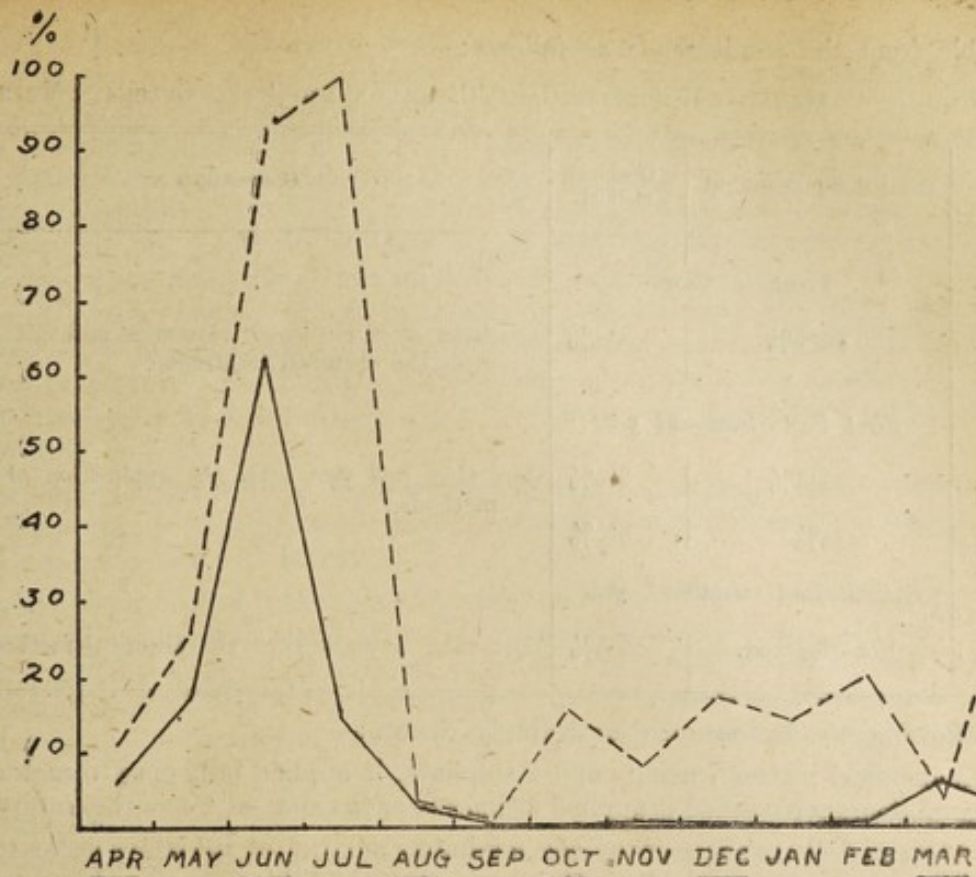
GRAPH III.

Copper sulphate method. Teftiche Wadi Kom-Ombo, Egypt. Second post-treatment year. Explanation as in graph I.

Comparing the above result with those achieved by other methods, of which we have the canal clearance method (Barlow, 1937), carried out in Moustorod, an area of about 875 acres, half of which, that is only 1.5 per cent of the area of Kom-Ombo, was treated six times at 2 monthly intervals, the following may be noted:

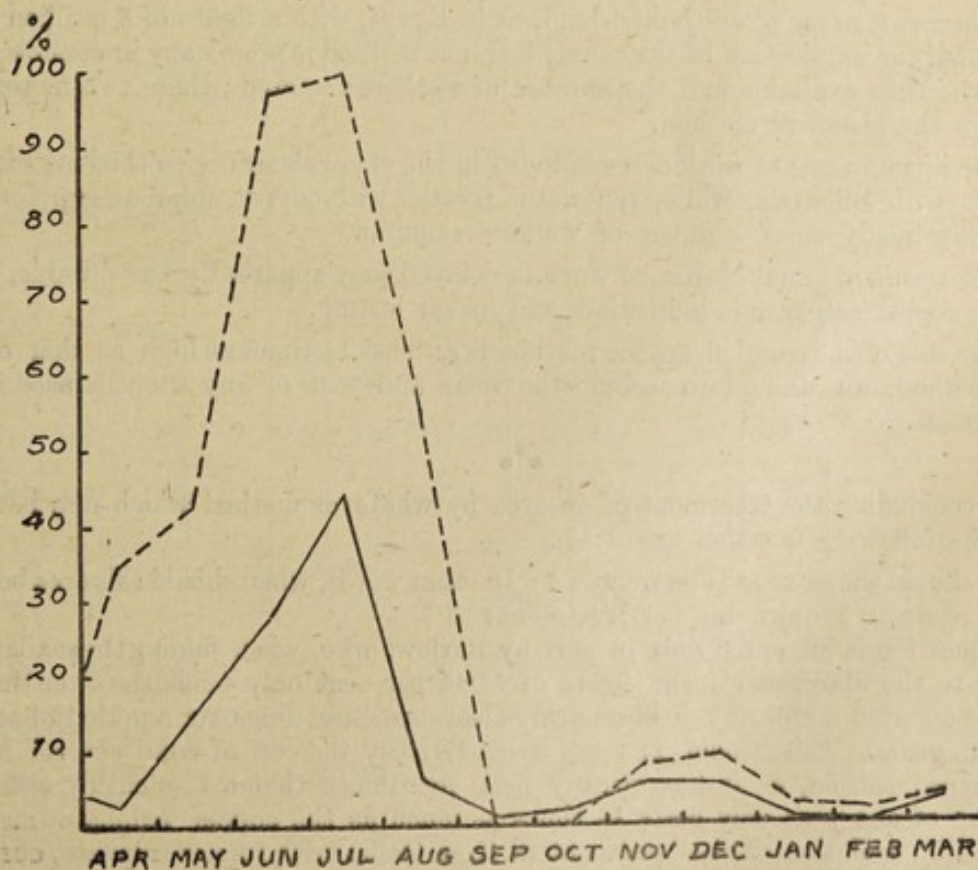
(a) In the clearance year (Graph IV); after the first two of the six canal clearances were concluded, in April and May respectively, the maximum rise in the snail population was reached in June; it amounted to 62.5 per cent of the maximum in the cleared condition as calculated from Barlow's table No. 2, page 341.

(b) In the post clearance year (Graph V); the maximum rise here was reached in July and amounted to 44.44 per cent of the snails in the non-reached condition calculated as mentioned above. This figure was reached 16 months after the first clearance and only 4 months after the last, or sixth, clearance.



GRAPH IV.

The canal clearance method, Moustorod, Egypt. Clearance year. Clearance months are underlined. Graph-line in solid black shows percentage of the snails in the cleared canals. Graph-line in spaced black shows state of the same canals if untreated, using Barlow's control. (Vide Barlow, 1937, table 2, p. 341).



GRAPH V.

The canal clearance method, Moustorod, Egypt. First post-clearance year. Graph-lines as in Graph IV.

In table from the result reads as follows:—

TABLE NO. 107.—COMPARATIVE RESULTS OF CANAL CLEARANCE AND COPPER SULPHATE METHODS

	Canal clearance method	Chemical method	Observations
	<i>Treatment year</i>		
June	62·5%	2·4%	3 months after the canal clearance and one month after the chemical treatment.
	<i>First Post—treatment year</i>		
June	27·7%	9·3%	More than one year after the application of either methods.
July	44%	6·3%	
	<i>Second Post—treatment year</i>		
July	Not observed.	6·5%	More than 2 years after the chemical method.

The following conclusions are accordingly drawn:—

(1) The chemical method, using copper sulphate, is applied only once to each canal, while the canal clearance method is applied 6 times to each canal, at 2-monthly intervals.

(2) In the canal clearance method the minimum number of workdays necessary for an area of 200 acres is 543 days, while in the chemical method this figure is reduced to only one day for each 200 acres.

(3) In the canal clearance method the amount of human labour required is accordingly 543 times as much as in the chemical method.

(4) Canal clearance work is therefore long and tedious, but the chemical method is "Blitz-like."

(5) When vast areas of cultivated land, as in Egypt, with a figure of 6 million acres are concerned, the application of the canal clearance method is practically impossible, both regarding the time available and the number of workers required; these two factors are negligible in the chemical method.

(6) The huge masses of workmen employed in the canal clearance method are exposed to infection with Bilharzia, while, the water treated with copper sulphate is practically safe for the already small number of workers required.

(7) The result of canal clearance work is delayed and apparently less durable, while that of the copper sulphate is immediate and longer lasting.

(8) The cost of the canal clearance method is at least 14 times as high as that of the chemical method, not taking into account the wear and tear of any utensils used in the canal clearance.

*
*
*

After concluding the treatment of an area by whatever method which may be found suitable, the following question arises:—

When should the same area be treated? In other words, when should this area become dangerous again to require another treatment?

This question is answered only in part by Barlow, who, when finding the snails rising so quickly to the above-mentioned figure of 44·44 per cent only 4 months after the last clearance, suggested a monthly or bi-monthly clearance extending over a period of several consecutive years. This would increase tremendously the cost of snail control by the canal clearance method, as it has already been mentioned that a bi-monthly clearance for a period of one year only costs 14 times as much as the copper sulphate method.

After the conclusion of the treatment in Kom-Ombo with copper sulphate, our next aim was to keep on examining the canals, monthly when possible, or bi-monthly, for the purpose of finding out how long the improvement continues and when, as mentioned above, will it be necessary to repeat the treatment.

Considering the above mentioned result as a whole, it can be safely concluded that, after more than two years, the condition of the canals remained so good that there could yet be no question of repeating the treatment.

On the other hand, discussing the result from another aspect, that is, considering each canal alone, it can be seen from table No. 108, that a rise in 9 out of 33 stations (st. No. 2, 51, 57, 80, 86, 110 b, 113 b, 117, and 201) to about 100 per cent occurred after two years; of these, st. No. 2 and No. 86 show a high figure almost throughout the heavily infested periods of the two years, while in st. No. 51 and No. 201 the rise was registered only during the second year. Out of the remaining four stations, No. 110 b, 113 b and 117 show only a rise in April 1942, and in st. No. 80 the rise was registered both in March 1941 and April 1942 only. Furthermore, a rise of only 25-30 per cent is noted in st. No. 9, while in the remaining 22 stations only 5 per cent have been registered after two years. This means that:—

(a) The improvement after a single treatment with copper sulphate was maintained during the following two years in 66 per cent of the canals and it is evident, therefore, that another treatment is not yet indicated.

(b) In only 30 per cent of the canals, the condition returned more or less to its previous state of heavy infestation with snails after the lapse of one to two years. Obviously these canals should be treated again as soon as possible. Yet another factor must be taken here into consideration; this is the percentage of infected snails in these canals, or, to be more precise, the percentage of snails evacuating free cercariae. The figures obtained were as follows:—

TABLE NO. 108.—NUMBER OF BULINUS FOUND AT DIFFERENT STATIONS DURING A ROUTINE EXAMINATION LASTING OVER TWO YEARS AND FOLLOWING THE APPLICATION OF THE COPPER SULPHATE.

Station No.	1940				1941							1942				
	April	June	September	November	January	March	May	June	July	September	November	January	March	April	May	July
2	74		3	4		26	88	45	124	14	1	Neg.	62	72	77	73
6	8		3	Neg.		—	1	—	—	Neg.	8	—		—	7	—
7	16	12	2	Neg.		—	—	—	Neg.	1	Neg.		—	—	30	—
9	42	15	Neg.	1		19	48		—	Neg.	36	3	7	—	84	45
9b	194	7	Neg.	Neg.		3				Neg.	7	—				44
12	338	20	Neg.	—	5	—	57		83	2	Neg.	Neg.	32	36		28
13	64	Neg.		—	20	11	1	43	35	Neg.	1	1	1		27	58
14	87	404	67	4	50	200	48	51	15	Neg.	Neg.	Neg.	Neg.	2		7
33b	892	18	6	3		4	8		2	Neg.	2	—	—	2	4	15
51	63	12		3b	6	10		59	111	8	4	16	15	9	130	246
57	15	17		3		—	—	10	Neg.	Neg.	12	7	1	14		33
68	72	41	29	—		—	6	20	15	1	—	3	—		7	3
80	22	Neg.		Neg.	1	35	3	1	Neg.	1	1	—	5	36	10	4
85	206	11			52	187	59	37	39	3	2	2		4	26	8
86	40	1			6	103	35	66	183	92	8	100	33	36	63	52
88	++++			2	8	8	63	16	5	8	21	11	21	25	27	8
90	87	8	4	—	12	2	—	16	Neg.	Neg.	Neg.	Neg.	3	3	35	3

TABLE 108 (continued)

Station No.	1940				1941							1942				
	April	June	September	November	January	March	May	June	July	September	November	January	March	April	May	July
102	15	60	Neg.	22	12	1	5	1	3		—	1	—	—	7	9
110b	28	Neg.	—	4	—	—	—	—			—	2	—	48	11	5
113b	81	Neg.	Neg.	—	3	2			1		—	3	16	71	6	6
117	5	2	Neg.	Neg.	Neg.	1	Neg.	—	2	Neg.	Neg.		2	4	—	Neg.
140	90	6	19	1	4	22		24	Neg.	Neg.	1	3	6	2		19
142	10			2	1	1	15	1	2	Neg.	—	2	1	2	26	—
145	87	—	—	—	—	—	1		2			cancelled				
146	5	Neg.	1	3	2	6	48	58	25	2		cancelled				
147	55	6	Neg.	Neg.	2	—	11	3	3	1	Neg.	Neg.	—	4	36	2
161b				—	57	19	8	14	4	Neg.	1	14	2	—	47	10
170	+++					3	122	1	Neg.	Neg.*	Neg.	Neg.	—	—	—	Neg.
172	47	Neg.	Neg.	Neg.	—	—	1	Neg.	Neg.	Neg.	Neg.	Neg.	—	—	Neg.	Neg.
176	50	25	32			3	13			2		Neg.	4	1	1	4
179b	8	—	Neg.		1	12	11	Neg.		Neg.	3	Neg.	1	Neg.	21	—
190	280	6	3	—	3		29		1	Neg.	Neg.	Neg.	5	15	1	12
201	59	Neg.			Neg.	1	10	18	16	1	1		95	211	29	123

Neg. = no snails whatever found on this occasion.

— = no Bulinus snails found on this occasion.

N.B.—Where no figures are given, this means that the examination of the station in question on that occasion has not been concluded due to circumstances beyond the control of the authors.

(1) An examination made in May, 1942, revealed 1 positive in 350 snails, or 3 per thousand.

(2) Another examination made in July, 1942, revealed 2 positive in 250 snails, or 8 per thousand.

In an area heavily infected with Bilharzia, this figure is apt to rise up to 15 per cent in July. The canals would therefore be only dangerous should the number of actively infected snails be high. This being only 0.8 per cent as against 15 per cent, renders the canals in question safe or at least not quite dangerous until the next rise in the number of snails, that is in June of the following year. This is because the snails require some time to become infected, if they are ever going to be; in addition, some other period must elapse for those, once infected snails, to be dangerous, that is to evacuate active cercariae. Simultaneously the number of the snails continues to decrease due to natural elements. These are the indirect effects of the Nile flood, beginning late in July and lasting for about three months, followed by the cold winter months and finally the winter closure of the canals (the last factor, however, does not count appreciably in Kom Ombo). From the above considerations, it can be safely concluded that, even in the deteriorating 30 per cent of the canals a second treatment is not indicated until the next rise in the number of snails, that is in June, 1943, when the number of infected snails would naturally be higher. In

other words, the next treatment of the canals, and only of 30 per cent of them would be indicated three years after the first treatment, while the rest of the canals in which the improvement is maintained should remain under observation for the purpose of determining the date of their next treatment from the same view points discussed above.

The second question which arises is the following:—

Why, in an area which has been treated with the same method and under the same conditions, two opposing results are obtained after the lapse of two years? In other words, why an improvement is maintained in two-thirds of the canals, while a return to the pre-treatment condition is observed in the remaining third? It is true that the canals, being in the same locality and forming subsidiaries of a single large canal, should show the same, good or bad, result, perhaps with some minor differences due, among other reasons, to their capacities and to the point where they arise from the main canal Cassel. We are rather inclined to attribute this diversity in result to a failure in the treatment of the canals in question. Reference has already been made in detail to the possible causes of failure and to measures counteracting them. These are:—

(1) The copper sulphate was used in a too low dilution of 5 per million. It has been recommended that a 6 to 7 per million dilution should be made with an addition of 1 per million for a possible uneven distribution.

(2) Inspection of the canals during the treatment period revealed the fact that some of them were opened for irrigation before the lapse of the 5-days treatment period. These indiscriminations, which certainly had a deteriorating effect on the result, should be countermeasured by chaining and locking the intake gates during the treatment period.

(3) Some canals were apparently empty at the start of the treatment while they actually contained large amounts of water in their distant, lower portions. Such water collects at the end of the canal, which is usually more infested with snails, and thus remains inaccessible to the drug. Unless this is guarded against, a complete failure is certain. It was suggested that, in order to avoid misinformation as to the state of the canal immediately prior to treatment, one should not rely on outside information. One of the staff should therefore be provided with a suitable means of communication to inspect the whole canal before the copper sulphate treatment is applied.

In conclusion, the following suggestions are made:—

(1) For the purpose of continuing the work of snail destruction in Kom-Ombo, already begun in April 1940, a re-examination of all the canals about the end of the third year, that is, in April, 1943, should be made.

(2) It is presumed that one third of the canals will be found to require a second treatment with copper sulphate.

(3) A yearly examination of the canals, in April, will be followed by an immediate treatment (in May) of canals found to require such.

The above suggestions means that a locality like Teftiche Wadi Kom-Ombo will have, at most, to be treated once every three years, either as a whole lot or at the rate of one third of the canals each year.

However, the future advance in the technique and the inevitable experience which will be gained by those carrying out the treatment and lastly the sincere cooperation of those for whom the treatment is being done will render, it is expected, the period between every two treatments of a canal with copper sulphate appreciably longer than three years.

B.—The Palm-leave as a Snail Trap; a Preliminary Report

The need for a uniform method of examination of snails to determine the degree of infestation with snails is urgent during Bilharzia campaigns. Apart from the variation in the rate of infection with Bilharzia cercaria of the snail intermediate host which may be taken as a measure of the effect of treatment and propaganda the number of snail population in a given canal is the sole indication of the effect of the measures taken against the snails themselves. Snail counts have therefore to be made both before and after the introduction of the measures themselves. They have to be made both in the treated canals and in those taken as a control. A whole count especially when large areas are

concerned is not possible and the count of certain constant areas of the canal was found tedious and even impracticable; objections to this method as carried out by Barlow (1937) were raised already by Khalil Bey and Hilmy (1940).

The object of this short communication is to give a short description of a simple snail trap, by means of which the presence of snails and the degree of infestation in a given canal is determined in an easy and valuable manner.

The trap used is a branch of a palm tree which is freshly cut on the spot. This is available everywhere in the country. The leaves should be fresh, green and intact. It is advisable to use a constant length, say of one metre, by discarding the surplus from both ends, as very long or very short leaves are not suitable for the purpose; they proved of no value in giving protection to the snails in the water. A piece of stone is fastened by a string to the branch at a suitable point of its length, to help the trap to submerge in the water, in a horizontal position. The top of the branch should be directed downstream, and the upper surface of the leaves opposite the canal bed. The other end of the string holding branch and stone should be fastened somewhere on the edge of the canal, preferably to a simple sort of peg, submerged under the water, to escape the attention of passers-by. After the lapse of a few days, the trap should be raised carefully and counting and sorting of any snails found should be made immediately. The collection of the snails from the trap is made easily by placing the trap, top downwards in the middle of a white painted dish of water and scraping gently every single leave between two fingers, rinsing the finger in water from time to time. This is to release any snails and silt on the hand into the water in the dish, to prevent silt from drying on the hand and the water from evaporating to dryness and thus to avoid infection with *Schistosoma cercariae*. So far it has been found that rubber finger gloves are not necessary at all. Under the white dish, a rubber sheet of about one metre square should be placed, as some of the snails fall down outside the dish during the process. When all the leaves have been wiped clean, the dish is removed, the contents of the rubber sheet should be flushed into the dish, the contents of the dish poured into a suitable wire-net, the residue washed in the canal, then thrown on the cleaned rubber sheet or white dish, counted, sorted and the obtained figures registered and then the snails thrown back into the water.

This simple trap has been used repeatedly during the last 15 years and it proved itself of value in finding snails in large canals where the wire-net has so often failed. Along the course of the Nile and even in the Aswan Dam, snails were discovered by this trap. Only recently it has been attempted to use it as a means of determining the intensity of the snail population of the canals before the campaign in Kom-Ombo was started. Following is a table showing the number of snails caught by different traps which have been left in the water for varying periods. It shows clearly the rising number of snails as the period of stay in the water increases. Further experiments will show to what extent this should continue.

TABLE NO. 109.—SHOWING THE NUMBER OF SNAILS CAUGHT BY DIFFERENT TRAPS WHICH HAVE BEEN LEFT IN THE WATER FOR VARYING PERIODS

Station No.	Measurements of the trap	Number of days	Snails found					Total number
			Bulinus	Physa	Vivipara	Planorbis	Melania	
6	150 × 60 × 50	1 day ...	—	—	1	—	—	1
	150 × 60 × 50	4 „ ...	—	—	27	—	—	27
	150 × 35 × 60	5 „ ...	1	2	25	—	—	28
1	165 × 60 × 30	1 „ ...	—	—	1	1	—	2
	155 × 65 × 50	5 „ ...	—	—	18	—	—	18
	160 × 60 × 40	7 „ ...	—	12	25	—	—	37
5	165 × 60 × 30	4 „ ...	10	—	2	—	—	12
	195 × 55 × 25	7 „ ...	38	77	7	—	—	122
3	45 × 30 × 15	1 „ ...	5	2	4	22	—	33
	15 × 30 × 15	4 „ ...	15	241	5	52	1	314

TABLE NO. 110 (contd.)

Station number and trap place	Measurements of the trap	Number of days in water	Snails found						Total number
			Balnu	Physa	Vivipara	Melania	Cleopatra	Others	
3 b right	130 × 65 × 50 92 broad	4	1	23	1	—	—	—	25
left	90 × 65 × 65 56 broad	4	2	21	2	1	—	—	26
2 b right	60 × 32 × 32 39 medium	4	8	45	—	—	—	—	53
left	68 × 35 × 24 38 medium	4	4	59	—	—	—	—	63
1 c right	145 × 45 × 50 74 medium	9	11	5	16	4	6	1	43
left	145 × 50 × 50 73 medium	9	17	4	7	4	3	2	37
2 c right	180 × 50 × 25 108 medium	9	1	—	7	1	1	1	11
left	140 × 60 × 20 98 broad	9	1	—	6	5	—	—	12
8 right	155 × 60 × 60 80 very big	5	1	2	17	8	2	—	30
left	170 × 25 × 65 130 very big	5	3	1	22	13	2	—	41
2 b right	120 × 65 × 75 60 thin	4	—	—	3	—	—	—	3
left	150 × 57 × 70 96 broad	4	1	1	4	—	1	—	7

2.—Biochemical Section

A.—The Intravenous Galactose Tolerance Test.

(1) The intravenous galactose tolerance test of hepatic disfunction is studied in jaundice as well as in schistosomiasis.

(2) The intravenous galactose test is found valuable and more delicate when 3/4 cc. of a 50 per cent solution of galactose per kilogram body-weight is injected and the blood galactose is determined at intervals thereafter.

(3) Impairment of the glycogenic function of the liver results in a higher rise and slower decline of the blood galactose values. The persistence of the galactosaemia and the amount of galactose in the two hour samples of blood are very important.

(4) This test demonstrates impairment of the glycogenic function of the liver in patients with jaundice as well as in patients with schistosomiasis.

(Published J. Roy. Egypt. Med. Ass. Vol. 25, Nov. and Dec. 1942).

B.—A Colorimetric Method for the Estimation of Small Quantities of Antimony in the Urine.

(1) A colorimetric method for the estimation of antimony in the urine has been devised.

(2) This method, in the absence of certain interfering metals and under specified conditions, could be used for the direct estimation of small quantities of antimony in the urine. The method could be used for the estimation of 0.01 mgm. of metallic Sb.

(3) This method is simple, rapid and reasonably accurate for clinical work.

(4) This method will be most useful in following up the excretion of an antimony in the urine in patients undergoing treatment with compounds of this metal.

(Published J. Roy. Egypt. Med. Ass. Vol. 25, Sept. and Oct. 1942).

BACTERIOLOGY SECTION

The following are the main bacteriological investigations and their results that have been carried out in the Section during the year 1942:—

I.—Kahn Test for Syphilis.

Total number of specimens tested	325
Negative result in	240
Positive result in	67
Unfit specimens	18

II.—Stool Culture.

Total number	111
Negative cases	101
Bacillus Shiga in	6
Bacillus Flexner in	1
Bacillus Morgan No. 1	1
Bacillus Typhosus in	2

III.—Urine Culture in Cases of Cystitis and Pyelitis.

Total number of cultures done	110
Negative cultures	64
Bacillus Coli in	31
Bacillus Pyocyaneus	4
Bacillus Typhosus	3

[illegible]

Group (c).—*Hepatosplenomegaly.*

A total number of 692 cases were investigated with the following results :

Intestinal S.m.	54
Intestinal S.h.	21
Urinary S.h.	212
Urinary S.m.	—
Combined urinary and intestinal Bilh.	119
W.R. or Kahn +	13
Widal +	20
B.T. malaria	12
M.T. malaria	8
Hodgkins	2
Heart disease	1
Entamaeba histolytica	13
Unknown cause	217

IV.—*Anaemias.*

Patients presenting apparent anaemia were examined to find out the cause of their anaemia as well as to determine the degree of anaemia present. Patients presenting a Hb. below 60 per cent Sahli were considered as suffering of anaemia. The stools of these patients were examined for parasites and their blood examined for syphilis, malaria, etc., and a blood count is done in negative cases as well as the I.I to determine if there is a haemolytic factor in the condition. Investigation on 413 patients with Hb. below 60 per cent revealed the following :—

Parasites were demonstrated in 358 cases. Ankylostoma was present in 274 cases. 30 cases were suffering of Intestinal Bilharzia, 14 of Urinary Bilh. and 20 with mixed Intestinal and Urinary Bilh. Ascaris was demonstrated in 16 and Trichostrongyloids in 4.

In 55 cases no parasites had been found. Syphilitic infection was found in 3 cases. Malaria was demonstrated in 12 cases, 5 of which were benign and 7 malignant. A case was found due to bleeding piles and thus haemorrhagic in nature while diabetes accounted for 1 and T.B. of chest for 3 cases.

A case of leuco-erythroblastic anaemia was met with in a child of 11 years. His Hb. was 30 per cent and had Ankylostoma infection as well. X-Ray of the skull and long bones revealed no abnormality, no signs of haemolysis could be found. The patient had a big liver as well as a big spleen. A tuberculin test was found negative and glucose curve was normal. The case was diagnosed as a leuco-erythroblastic anaemia of unknown cause.

In Ankylostoma anaemia, the degree of anaemia ranged from 10-60 per cent Hb. Sahli. The majority were between 10-50. Patients presenting 10-20 per cent Hb. were 51, 20-30 were 71 ; 30-40 were 56 ; 40-50 were 55 and 50-60 were 41 cases.

As regards age distribution, anaemia was most marked in patients between 10 and 30 years as shown in table below.

TABLE No. 111

Age	below 10	10-20	20-30	30-40	40-50	50-60
Hb.	16	105	72	56	19	4

Iron was used in the treatment of these cases. 1 gm. of Ferric and Ammon. Citrate T.D.S. till the Hb. rises above 55 per cent and then the patient was given his purge as usual or his tartar emetic course.

V.—Dysenteries.

Patients presenting themselves complaining of dysenteric manifestations were examined clinically to find out tumours or bilharzial abdominal masses. The liver was looked for to find out any enlargement or tenderness. The spleen was examined and if found enlarged a thick drop was taken to eliminate the possibility of malaria being the cause of this dysentery. Then the stools were examined by direct smear and floatation to detect any parasites, e.g. Schistosomiasis infection. A sedimentation was made to find out Heterophyes heterophyes infection. Then the stools were sent for amoeba and flagelates examination. If still negative a culture was done for any bacillary infection responsible for this dysentery. At last a sigmoidoscopic examination of the bowel was done to find out ulcers, papillomata or otherwise. If still negative a fractional test meal was done to eliminate a gastric factor.

As regards the treatment of dysentery followed this year, it logically varies with its cause. In Schistosomiasis infection the usual antibilharzial remedy tartar emetic was used in the usual way. In amoebic infection whether of the vegetative or the cystic form, emetine 0.06 was given with strychnine daily for 6 days after which the stools were examined and if still positive a further 4 injections were given.

In Heterophyes heterophyes infection extract of felix mass was given at 4 cc. for an adult in $\frac{1}{4}$ hourly doses of 1 cc. capsules, and 1 hour after the last capsule a saline purge was given. The patient should be previously prepared by a saline purge the night before.

In Giardia lamblia vegetative or cystic, atebirin was used in the following way. First the patient was given a purge the evening before the taking of the drug. The following morning he was given one tablet of Atebrin Bayer 0.1 gm. every $\frac{1}{4}$ h. and then $\frac{1}{2}$ hour after the last a saline purge was given. The number of cases treated that way were so small to give any idea about the efficiency of the drug used as such. (The ordinary method was to use a full course of 5 days, 3 tablets daily).

During this year 355 cases attended at the Institute complaining of dysentery. Investigation revealed:—

(1) 59 cases were found positive for vegetative amoeba. In 23 cases the liver was found enlarged and tender. 42 cases were given 6 emetine injections and of these 28 turned negative, 3 remained positive and 11 became encysted.

(2) *Entamoeba histolytica* cysts were found to be the cause in 18 cases. The liver was enlarged in 6 cases only. 6 cases received the full course of emetine (6 injections), five became negative and one remained positive.

(3) 54 cases were found to be caused by Schistosoma infection of the intestinal tract whether the infection was haematobium or mansoni or both together.

(4) Flexner infection was demonstrated in only 1 case of the series.

(5) 8 cases were due to *Heterophyes heterophyes* infection. 4 were treated and proved negative after the 1st dose.

(6) *Giardia lamblia* was responsible for 15 cases of dysentery in this group. 3 of these received the treatment just mentioned and proved negative.

(7) 2 cases were found infected with Hymenolepis.

(8) Fractional test meal was done in 25 cases with the following results:—

Normal test meal in	...	...	...	...	...	...	...	...	...	3
Hypo acidity	...	...	...	...	...	...	...	...	...	7
Hyper acidity	...	...	...	...	...	...	...	...	...	10
Achylia	...	...	...	...	...	...	...	...	...	5

VI.—Pellagra.

During this year 87 cases of pellagra attended the Institute. Their monthly incidence showed the marked prevalence of the disease during March, April and May as shown in the following table.

TABLE No. 112

	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
No. of cases	6	7	20	14	18	8	5	1	2	2	—	4

In these series only 9 cases occurred in the female sex, *i.e.* about 10.4 per cent.

Incidence of Associated Parasites.

A look at table No. 113 shows that the disease is most commonly associated with *Ankylostoma* infection either alone or in association with other parasites. Next in order came combined infection of the urinary and intestinal tract with *Schistosomiasis*.

TABLE No. 113

Parasite	No. of cases
<i>Ankylostoma</i> pure	11
<i>Ankylostoma</i> and <i>Ascaris</i> ...	12
<i>Ankylostoma</i> and <i>Schistosomiasis</i>	19
<i>Ascaris</i> pure	8
Intestinal <i>Bilharzia</i>	6
Intestinal and Urinary <i>Bilh.</i> ...	15
Urinary <i>Bilharzia</i> alone	2
<i>Entamoeba histolytica</i>	2
Negative for parasites	12

Symptoms of Pellagra.

Diarrhoea varying from 3-20 times defecation in the 24 hours was noticed in 68 cases of the series, *i.e.* about 80 per cent of the cases.

The rash was generalised on face, neck, hands and feet in 37 cases. In 17 cases it occurred on hands and feet, 12 cases on neck and hands while in 9 cases it was confined to the hands and in 12 to the neck only.

Riboflavine deficiency was noticed with a rash on the lips in 3 cases.

Glossitis occurred in 2 cases while the nervous system showed increased reflexes in 6 cases. In no case was a definite subacute combined picture noticed.

Test Meals in Pellagra.

42 cases of histamine meal was done in the series with the following results:—

Hyperacidity		20 cases
Hypoacidity		10 „
Achylia		12 „

It appears that the condition of the gastric mucosa passes through the same stages as occurs in the tongue. In the very early cases there is acute inflammation leading to increased activity of the secreting glands of the stomach and thus giving rise to increased acidity. This stage is the analogy of the acute glossitis of the early cases. Attack after attack or as the disease becomes chronic by time, the mucus membranes atrophy leading to gradual decrease of function passing through the stages of hypoacidity and achylia. This 2nd stage is the analogy of the atrophic smooth condition of the tongue. The same phenomenon occurs not only in the mucous membranes but also in the skin which begins with the inflamed erythematous condition to end in the atrophic thin skins of healed pellagrous rash.

Chapter XXI.—MEMORIAL OPHTHALMIC LABORATORY, GIZA

Throughout the year 1942, the Memorial Ophthalmic Laboratory has continued to fulfil the functions for which it was originally created, namely to assist in the training of ophthalmic surgeons, to serve as a pathological laboratory for the many ophthalmic hospitals scattered throughout the Country and to act as a centre for clinical and bacteriological research in ophthalmic diseases especially those peculiar to Egypt. It is therefore convenient to review the work of the year under these headings:—

(1) *Post-graduate Training.*—The staff of the Laboratory again took part in the post-graduate instruction of candidates for the Diploma in Ophthalmic Medicine and Surgery. This included clinical, surgical, pathological and bacteriological teaching which was supplemented by practical instruction.

(2) *Pathological Department.*—The routine pathological work of the Laboratory continues to increase steadily with the increasing number of patients treated in hospitals throughout Egypt. It is interesting to note, however, that fewer blind eyes have been submitted for examination, which is indicative of the steady reduction in the incidence of blindness. Many specimens of interest were encountered during the year and these will be referred to more fully in the Annual Report of the Laboratory.

(3) *Clinical Investigation.*—As in medicine generally, so in ophthalmology cases continually arise which present puzzling characters and which therefore require more careful study and examination by specialized technique. Many such cases have been dealt with during the year and those which were of most striking interest will be referred to in the detailed Annual Report of the Laboratory.

(4) *Research.*—Subjects of clinical, therapeutic and bacteriological interest have received careful attention. Experiments on the treatment of acute ophthalmias by means of sulphonamide derivatives have been continued and the amazing efficacy of their results is established beyond any doubt. This drug may well be regarded as of epoch making importance to the welfare of humanity. Whereas in the past thousands of children were blinded annually as a result of ophthalmia, now no eye should ever be lost through this cause.

Unfortunately, research into the aetiology of trachoma has not produced such striking results, but progress, nevertheless, continues to be made, and from the therapeutic point of view sufferers from this disease may also receive some benefit from the drug already referred to.

This short report summarises very briefly some of the activities of the Laboratory, but those wishing to have further details should consult the Reports published annually by the Memorial Laboratory.

Appendix I.—MEDICAL PERMITS

TABLE No. 114.—SHOWING THE NUMBER OF PRACTITIONERS OF THE MEDICAL AND ALLIED PROFESSIONS AT THE END OF THE YEAR 1942 AS COMPARED WITH THAT OF THE YEAR 1941

PROFESSION	At the end of 1941	At the end of 1942
Medical Practitioners	3,718	3,913
Veterinary Surgeons	433	461
Dental Surgeons	489	493
Dentists without diplomas*	127	127
Pharmacists	976	1,007
Asst. Pharmacists*	337	336
Midwives	648	691

* No permits are now issued to persons of these two categories.

TABLE No. 115.—SHOWING THE NUMBER OF PERSONS AUTHORISED TO PRACTISE THEIR PROFESSIONS IN EGYPT DURING THE LAST FIVE YEARS

PROFESSION	1938	1939	1940	1941	1942
Medical Practitioners	149	142	113	139	158
Veterinary Surgeons... ..	28	24	38	8	29
Dental Surgeons	26	20	11	13	13
Pharmacists	28	53	46	45	45
Midwives	36	15	44	45	43
Dayas } Green Permits	204	226	288	197	193
} White Permits	2	1	2	2	1
Barbers	1	2	5	9	3

TABLE No. 116.—SHOWING THE NATIONALITIES OF PERSONS AUTHORISED TO PRACTISE MEDICAL PROFESSIONS DURING 1942

PROFESSION	Egyptians	Greeks	British	Rumanians	Total
Medical Practitioners	153	2	2	1	158
Veterinary Surgeons	28	—	1	—	29
Dental Surgeons	13	—	—	—	13
Pharmacists	45	—	—	—	45
Midwives	43	—	—	—	43

TABLE No. 117.—SHOWING THE ORIGIN OF MEDICAL DIPLOMAS THE HOLDERS OF WHICH WERE AUTHORISED TO PRACTISE MEDICAL PROFESSIONS DURING 1942

PROFESSION	Egypt	Great Britain	France	Austria	Lebanon	Germany	Switzerland	Italy	Greece	Russia	Total
Medicine	135	1	10	1	5	2	1	1	1	1	158
Veterinary Surgery	28	1	—	—	—	—	—	—	—	—	29
Dental Surgery ...	10	—	1	—	2	—	—	—	—	—	13
Pharmacy	42	—	—	—	2	—	1	—	—	—	45
Midwifery	43	—	—	—	—	—	—	—	—	—	43

TABLE No. 118.—SHOWING THE ORIGIN OF MEDICAL DIPLOMAS OF EGYPTIAN PRACTITIONERS AUTHORISED TO PRACTISE MEDICAL PROFESSIONS DURING 1942

PROFESSION	Faculty of Medicine at Cairo	French Universities	Swiss Universities	Lebanese Universities	German Universities	Total
Medicine	134	11	1	5	2	153
Veterinary Surgery	28	—	—	—	—	28
Dentistry	10	1	—	2	—	13
Pharmacy	42	—	1	2	—	45
Midwifery	43	—	—	—	—	43

TABLE No. 119.—SHOWING THE RESULT OF THE STATE EXAMINATIONS HELD DURING 1942 FOR MEDICAL PRACTITIONERS, PHARMACISTS AND DENTAL SURGEONS HOLDING FOREIGN DIPLOMAS FOR THE PURPOSE OF OBTAINING PERMITS TO PRACTISE THEIR PROFESSIONS IN EGYPT.

EXAMINATION	Number	Egyptians		Foreigners		Total	
		Succeeded	Failed	Succeeded	Failed	Succeeded	Failed
Medicine	21	3	8	1	9	4	17
Pharmacy	8	1	7	—	—	1	7
Dentistry	17	3	9	—	5	3	14

Appendix II.—MEDICAL COMMISSIONS

The Central Medical Commission.

During the year 1942, the Central Medical Commission issued 23,135 medical certificates with an increase of 3,094 medical certificates as compared with the figure of 1941.

Of this number, 9,125 were for sick leaves. Of these, 5,845 concerned pensionable and temporary officials and 3,280 hors cadre employees.

Of those granted sick leave by the Central Medical Commission, or by Cairo District Medical Officers and approved by the Central Medical Commission, 2,396 pensionable and temporary officials and 746 hors cadre employees were found suffering from medical diseases and 1,097 of the former and 609 of the latter were found suffering from surgical and ophthalmic diseases.

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

TABLE No. 120

Diseases	Pensionable and Temporary Officials		Hors Cadre Employees	
	Number	Ratio to total 3,493	Number	Ratio to total 1,355
		%		%
Bronchi and Lungs	309	9	130	9
Heart and Blood Circulatory System	201	6	28	2
Stomach and Intestines	93	3	46	3
Liver	102	3	15	1
Kidney and Cystitis	159	5	52	4
Neurasthenia and mental diseases	120	3	32	2
Nervous System	95	3	16	1
Anaemia and General Debility	297	8	86	6
Rheumatism	326	9	89	6
Fevers	199	6	85	6
Nose and Larynx	174	5	62	4
Other Medical Diseases	321	9	105	8
Eye diseases	151	4	61	4
Ear and Dental Diseases	103	3	29	2
Urinary System and Stones	47	1	18	1
Various Surgical Operations	498	14	278	25
Fractures	128	4	155	11
Minor Surgical Operations (fistulae, piles, hernia and hydroceles)	170	5	68	5

The number of sick officials and employees who were granted from 1-10 days' sick leave by Cairo District Medical Officers or by Markaz and Sanitary Outpost Medical Officers in all the provinces and governorates during the year 1942, was 43,302, of which 35,108, or 81 per cent suffered from medical diseases, 3,726, or 9 per cent suffered from surgical diseases, and 4,468, or 10 per cent suffered from ophthalmic diseases.

The number of patients who were granted from 1 to 10 days sick leave by the Central Medical Commission or by Cairo District Medical Officers and approved by the Central Medical Commission was 1,018 pensionable and temporary officials and 597 hors cadre employees.

The number of patients who were examined by the Central Medical Commission and were not granted any sick leave was 158 pensionable and temporary officials and 108 hors cadre employees.

Those examined by the Provincial and Governorate Medical Commissions and were not granted any sick leave were 505 pensionable and 600 hors cadre employees.

The number of patients who were granted from 11 days to 30 days sick leave and upwards by the Central Medical Commission and by Cairo District Medical Officers was 2,475 pensionable and temporary officials and 758 hors cadre employees.

The Central Medical Commission granted 22 pensionable and temporary officials longer sick leaves terminating by their retirement on pension and pronounced 274 hors cadre employees medically unfit for further service.

20 pensionable and temporary officials and 96 hors cadre employees were examined by the C.M.C. and pronounced fit for further service.

Of a total of 9,996 candidates for Government service and Educational Missions abroad examined by the C.M.C. 5,646 were pensionable and temporary officials and only one candidate for Missions abroad and the remaining 4,349 were hors cadre employees.

Of the candidates for pensionable and temporary Government service, 23 per cent were rejected and 77 per cent accepted. Of the hors cadre candidates, 41.5 per cent were rejected and 58.5 per cent accepted.

Of the candidates for pensionable and temporary Government service, 19 per cent were rejected for defective vision, Myopia being the main cause; 2 per cent for defects in the urinary system with albumen or its traces as the main cause; 1 per cent for heart diseases, incompetency being responsible for most cases; and 1 per cent for other diseases, e.g. varicoceles, hydroceles, apparent poor constitutions or diseases of the respiratory system, etc.

Medical Examination of Private and Passenger Pilots.

The number of candidates for private pilot licence "A" who presented themselves for examination before the Central Medical Commission during the year 1942 was 99, of which 61 passed successfully (49 in the first session, 11 in the second, and 1 in the third session). The failures were 38 (34 having failed in the first session, 3 in the second session, and 1 in the third session).

10 candidates for passenger pilot licence "B" were examined by the Central Medical Commission during the year 1942, of whom 9 passed successfully (8 in the first session, and 1 in the second session). One only failed and he was examined once.

During the year 1942, 69 private pilots were examined by the Central Medical Commission for renewal of their licences of whom 55 were found fit (54 having succeeded in the first session and 1 in the second session). The failures were 14 (12 having failed in the first session and 2 in the second session).

Sixty-six were examined for the renewal of passenger pilot licences, of whom 63 were found fit (60 having succeeded in the first session and 3 in the second session) and 3 were finally rejected after having been examined once.

Provincial and Governorate Medical Commissions.

31,658 medical certificates were issued by the Provincial and Governorate Medical Commissions during the year 1942, i.e. an increase of 1,125 certificates over those of last year.

TABLE No. 122—ANNUAL RETURN SHOWING CLASSIFICATION OF DISEASES CONTRACTED BY OFFICIALS AND EMPLOYEES FOR WHICH SICK LEAVES WERE GRANTED BY THE CENTRAL MEDICAL COMMISSION AND PROVINCIAL MEDICAL COMMISSIONS DURING THE YEAR 1942.

DISEASES

	Medical Diseases																Surgical and Ophthalmic Diseases																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total	H. C.	P. & T.	H. C.	P. & T.	Eye Diseases	Ear Diseases	3	4	5	6	7	8	9	10	11	Total																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	Nose and Larynx	Bronchi and Lungs	Heart and Cir. System	Stomach and Intestines	Liver	Kidney and Cysts	Nervousness	Mental Diseases	Nervous System and Cereb. and Cord	Anaemia and General Debility	T. B.	Syphilis	Rheumatism	Fever	Internal Diseases		P. & T.	H. C.	P. & T.	H. C.	Eye Diseases	Ear Diseases	Appendicitis	Hernia	Fistulae	Piles	Hydroceles	Urinary System and Stones	Other Surgical Operations	Fractures	Dental Diseases																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Cairo	174	62	201	93	102	169	60	25	95	297	86	131	326	199	85	186	2,396	746	161	61	39	26	6	32	16	51	26	74	24	13	3	47	18	472	272	128	165	64	19	1,097	609																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Governorates and Provinces	44	493	203	112	218	308	152	68	41	639	636	44	624	164	233	280	3,730	2,877	229	220	46	33	40	28	32	88	86	129	160	146	441	110	22	1,479	2,318																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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N.B.—P. = Permanent. T. = Temporary. H.C. = Hors Cadre.

Appendix III.—CENTRAL STORES

As in previous years and despite difficulties arising from the war, the Central Stores managed to keep all the units of the Ministry supplied with modern apparatus, surgical instruments and drugs, all the time adopting a policy of economy consistent with prevailing conditions and by no means hindering the progress of the work. Arrangements were also made for provisioning hospitals and other treatment centres.

Specifications of articles put in general adjudications are modified from time to time by technical experts and modern samples selected to meet present day requirements.

Besides, the following new units were provided with the necessary equipment and appliances :—

- (1) Completing the equipment of Boulac Health Group.
- (2) Equipment of two Ankylostoma Branches within Ayat and Shubrakhit District Hospitals.
- (3) Providing the Chest Diseases Hospital, Abbassia, with the necessary equipment and instruments required for its enlargement.
- (4) Equipment of an Ear, Nose and Throat Section in a District Hospital.
- (5) Equipment of Princess Khadiga Abbas Halim Hospital for Bone Tuberculosis.
- (6) Equipment of a T.B. Isolation Home.
- (7) „ „ Malaria Station.
- (8) „ „ Dental Clinic.
- (9) „ „ Skin and Venereal Diseases Clinic in Assiut.
- (10) „ „ the Reception and Isolation quarters at the Abbassia Fever Hospital.
- (11) Equipment necessary for the conversion of three Ankylostoma School Clinics from the old to the new system.
- (12) Equipment necessary for the introduction of Village Ophthalmic Treatment in six Health centres.
- (13) Equipment necessary for the enlargement of Demerdash Pasha Hospital.
- (14) Completing the equipment of two travelling Child Welfare Centres.

TABLE No. 123.—SHOWING BRIEFLY THE WORK OF THE CENTRAL STORES

	1941	1942	Decrease	Increase
Receipt Vouchers	12,068	13,284	—	1,216
Issue Vouchers	67,734	43,674	24,060	—
Claims... ..	1,227	1,141	86	—
Correspondence outward	131,001	135,662	—	4,661
„ inward and forms	135,970	140,741	—	4,771
Postal parcels received	7,020	4,136	2,884	—
„ despatched	13,371	12,108	1,263	—
Railway parcels despatched	66,668	65,039	1,629	—
„ consignments received	73,046	74,177	—	1,131
Workshop labour (No. of articles repaired)	84,112	98,639	—	14,527
„ „ (No. of articles newly made)	250,112	183,128	66,984	—

TABLE No. 124.—SHOWING CONTRACTS AND ORDERS MADE IN 1942 AS COMPARED WITH 1941

	1941	1942	Decrease	Increase
General adjudications	311	600	—	289
Local offers	322	263	59	—
Contracts	447	520	—	73
Local orders	638	553	85	—
Foreign orders	45	37	8	—
Forms 50 C.G.	2,844	2,913	—	69
Questions submitted to the contract board... ..	897	843	54	—
Contract board held... ..	172	149	23	—
Tenders submitted in the general adjudications	1,265	646	619	—
Agreements	4	4	—	—
Miscellaneous orders	61	119*	—	58
Tenders submitted in the local adjudications	784	1,150	—	366

Appendix IV.—DETAILS OF BUDGET GRANTS AND EXPENDITURE

TABLE NO. 125.—DETAILS OF BUDGET GRANTS AND EXPENDITURE

	Budget Grants		Actual Expenditure	
	1941	1942	1941	1942
	L.E.	L.E.	L.E.	L.E.
<i>Title I</i>				
Salaries, Wages and Allowances	936,136	965,100*	916,743	935,642
<i>Title II</i>				
General Expenses	1,081,970	1,287,270*	1,012,064	1,132,227
<i>Title III</i>				
New Works	120,700	370,530*	44,497	78,591
TOTAL	2,138,806	2,622,900	1,973,304	2,146,460

* Two Additional grants have been opened under Title I, the first for the sum of L.E. 5,000 by Law No. 2-1943 for Malaria Campaign and the second for L.E. 15,000 by Law No. 25-1943 to cover the excess in Daily-paid staff Credit.

An additional grant for L.E. 5,300 under Title II and another for L.E. 222,000 under Title III have been opened by Law No. 2-1943 for Malaria Campaign.

TABLE No. 126

	General Sections		Endemic Diseases Sections		Curative Medicine Sections		Preventive Medicine Sections		Social Medicine Sections		Central Admin.		Units		Total	
	1941	1942	1941	1942	1941	1942	1941	1942	1941	1942	1941	1942	1941	1942	1941	1942
Technical Posts :—																
Permanent ...	140	149	52	57	590	537	318	369	191	199	—	—	—	—	1,291	1,311
Temporary ...	68	81	98	141	182	198	354	383	136	153	—	—	—	—	838	956
Adm. and Clerical Posts :																
Permanent ...	—	—	—	—	—	—	—	—	—	—	288	291	172	175	460	466
Temporary ...	—	—	—	—	—	—	—	—	—	—	187	201	293	473	480	674
Non Cadre Staff ...	641	616	969	889	3,665	3,188	1,084	1,541	2,036	2,057	—	—	—	—	8,395	8,291
	849	846	1,119	1,087	4,437	3,923	1,756	2,293	2,363	2,409	475	492	465	648	11,464	11,698

Appendix V

SUMMARY OF THE REPORT OF THE ALEXANDRIA MUNICIPALITY HEALTH DIVISION

DETAILS OF POPULATION, BIRTHS, DEATHS, INFANTILE MORTALITY AND INFECTIOUS DISEASES CASES AND DEATHS

1.—*Population* :— 735,600

2.—*Births* :—

(a) <i>Alive</i> :	<i>Egyptians</i>	<i>Foreigners</i>
Males	12,493	443
Females	11,847	455
	25,238	
	=====	

or a birth-rate of 34·2 per thousand population.

(b) *Still Births* : 1·2 per thousand population.

3.—*Deaths* :—

Males	9,491	985
Females	7,618	483
	18,577	
	=====	

or a death-rate of 24·1 per thousand population.

4.—*Infantile Mortality* : 5,151 or 204 per thousand births.

5.—*Children Deaths* : (1-5 years of age) : 4,342 or 233 per thousand.

6.—*Cases and Deaths of Infectious Diseases* :—

Cases	14,885
Deaths	2,409
Case-rate per thousand of population	20·2
Case-fatality-rate	16·2 per cent.

CAIRO CITY HEALTH INSPECTORATE

A.—VITAL STATISTICS

Population.

The estimated mid-year population of Cairo in 1942 was 1,419,800.

Births.

The total number of births (excluding still-births) recorded during the year was 65,455 or 46·1 per thousand of the population with an increase of 2,356 over the previous year.

Table No. 127 gives the distribution of these births over the various Cairo Kisms and their ratio per thousand of the population.

The number of still-births recorded during the year was 1,530 or 23·4 per thousand births as compared with 1,310 still-births during last year.

Deaths.

A total of 53,787 deaths were recorded during the year. This included 3,452 deaths among non-residents leaving 51,335 deaths for Cairo proper with an increase of 11,540 over last year and a ratio of 36·2 per thousand population, as compared with a ratio of 28·5 in 1941, 26·9 in 1940, 25·9 in 1939, 27·8 in 1938 and a mean death rate of 26·4 for the last five years (1936–1940).

Infantile Mortality.

A total of 16,208 deaths were recorded among infants under one year of age with an increase of 3,774 over last year and a ratio of 247·6 per thousand births as compared with 197 in 1941, 196 in 1940, 190 in 1939, 204 in 1938 and a mean death rate of 196·2 for the last five years (1936–1940).

Table No. 127 gives the deaths as recorded in the various Cairo Qisms.

Diseases Causing Infantile Mortality.

Diarrhoea and Enteritis are still responsible for the greater part of infantile deaths. Out of a total of 16,208 deaths, 9,577 or 59 per cent died of these diseases. General diseases come next with 3,322 deaths or 20·5 per cent. 2,096 or 12·9 per cent died of Marasmus and general debility, 623 or 4 per cent died of Chest diseases and 590 or 3·6 per cent of infectious diseases.

Death Inquiries.

The number of uncertified deaths which required investigation during the year was 30,455 or 59·3 per cent of the total deaths of Cairo.

Of these, 10,085 or 33·1 per cent were examined by the Medical officers of health; 19,433, or 63·8 per cent by Qism midwives and the remaining deaths occurred in villages surrounding Cairo and were examined by Sanitary barbers and Dayas.

Infectious Diseases.

During the year, 20,956 cases of infectious diseases were notified in Cairo City and 1,406 from outside as compared with 16,612 cases in 1941, 14,632 in 1940, 11,517 in 1939, 12,342 in 1938 and 14,138 in 1937.

The number of deaths from Infectious Diseases was 7,111 or 13·9 % of total deaths as compared with 11·5 per cent in 1941, 10·3 per cent in 1940, 7·5 per cent in 1939 and 8·4 in 1938.

Table No. 128 gives the number of deaths from the more prevalent Infectious diseases distributed according to Qisms.

For details *re* typhoid and typhus fevers, please refer to Chapter II.

Influenza.

2,002 cases of Influenza were notified with 41 deaths or a case rate of 1·4 and a death rate of 0·003 per thousand of the population as against 1,358 cases and 25 deaths with ratios of 0·97 and 0·02 in 1941 ; 1,851 cases and 30 deaths (1·3 and 0·02) in 1940, 1,937 cases and 36 deaths (0·698 and 0·011) in 1939 and 1,498 cases and 36 deaths (1·127 and 0·037) in 1938.

Tuberculosis.

A total of 3,181 cases of tuberculosis were notified during the year with 1,527 deaths or a case rate of 2·23 and a death rate of 1·07 per thousand of population.

Deaths attributed to Confinement.

126 deaths of mothers were attributed to confinement or a ratio of 1·92 per thousand births as against 2·5 in 1941, 2·2 in 1940, 2·6 in 1939 and 1938 and 2·5 in 1937. Of this number 36 or 0·55 per thousand births died of puerperal fever as against 0·9 in 1941, 0·8 in 1940, 0·7 in 1939 ; 0·9 in 1938, 1·6 in 1937 and 1·9 in 1936.

The number of mothers who died within a fortnight from giving birth (excluding puerperal fever deaths) was 90, as compared with 104 in 1941, 117 in 1940, 113 in 1939, 98 in 1938, 82 in 1937, and 124 in 1936.

The causes of these deaths were as follows :—

12 difficult labour, 8 postpartum hæmorrhage, 6 antepartum hæmorrhage, 32 eclampsia, 4 placenta prævia, 1 caesarean operation, 1 rupture of uterus, 11 heart failure, 5 peritonitis, 5 infectious diseases, and 5 other diseases.

Disinfection.

A total of 107,753 rooms were disinfected during the year. Of this number 60,488 rooms were disinfected by Abbassia Disinfecting station and 47,265 by Fom el Khalig Disinfecting station.

TABLE No. 127.—THE POPULATION AND VITAL STATISTICS OF CAIRO AND ITS QUARTERS IN 1942
WITH MEAN FIGURES FOR PREVIOUS YEARS

	Population	Number of Deaths	Death-rate per 1000 of Population	Number of Births	Birth-rate per 1000 of Population	Number of Infantile deaths (0-1) year	Infantile Mortality rate per 1000 Births
Ezbekia	57,700	1,569	27.2	1,965	34.0	398	202.5
Abdine	90,700	2,436	26.9	2,814	31.0	661	434.9
Sayeda I	72,000	3,348	46.3	4,529	62.9	1,096	242.0
Sayeda II	67,700	2,175	32.1	2,581	38.1	725	280.9
Khalifa	81,200	3,436	42.3	3,585	44.2	1,006	280.6
Darb-el-Ahmar	88,500	3,312	37.4	3,955	44.7	1,132	286.2
Mousky	28,000	911	32.5	1,178	42.1	304	258.1
Bab-el-Sharia	95,600	3,513	36.7	4,425	46.3	1,117	252.4
Gamalia	81,700	3,130	38.3	4,152	50.8	1,063	256.0
Abbassia	127,200	3,663	28.8	5,454	42.9	1,090	199.9
Shoubra	134,100	5,033	37.5	7,452	55.6	1,670	224.1
Rod-el-Farag	129,600	4,004	30.9	5,766	44.5	1,242	215.4
Boulac I	84,100	4,289	51.0	5,256	62.5	1,347	256.3
Boulac II	54,100	1,833	33.9	2,473	45.7	620	250.7
Old Cairo	73,400	3,195	43.5	3,538	48.2	1,001	282.9
Heliopolis	56,800	1,460	25.7	1,797	31.6	385	214.2
Zeitoun	44,300	2,005	45.3	2,317	52.3	704	303.8
Helwan	53,100	2,023	38.1	2,218	41.8	647	291.7
TOTAL FOR CAIRO	1,419,800	51,335	36.2	65,455	46.1	16,208	247.6
1941	1,398,200	39,795	28.5	63,099	45.1	12,434	197.1
1936-1940	6,782,000	179,150	26.4	290,141	42.8	56,916	196.2
1931-1935	6,173,600	164,169	26.6	265,745	43.0	53,323	200.7
1926-1930	5,064,100	152,856	30.2	235,003	46.4	51,853	220.7
1921-1925	3,956,400	135,848	34.3	202,554	51.2	47,404	234.0

TABLE No. 128.—DISTRICT DISTRIBUTION OF THE PRINCIPAL INFECTIOUS DISEASES IN 1942

District	Population	Small-pox		Relapsing fever		Cerebro-spinal fever		Typhus fever		Typhoid fever		Scarlet fever		Diphtheria		Measles		Totals		Tuberculosis		Malaria	
		Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Ezbekia	57,700	—	—	—	—	8	5	76	18	185	24	—	—	58	24	44	14	371	85	122	43	21	—
Abdine	90,700	—	—	—	—	12	1	113	41	292	46	4	—	108	25	71	44	600	157	199	82	18	—
Sayed I	72,000	—	—	—	—	5	1	143	27	168	43	—	—	87	29	89	71	492	171	207	146	16	2
Sayed II	67,000	—	—	—	—	2	1	133	19	209	16	—	—	90	24	75	27	509	87	147	78	20	—
Khalifa	81,200	—	—	—	—	5	2	245	50	161	21	—	—	72	26	93	78	576	177	241	125	23	—
Darb-el-Ahmar	88,500	—	—	—	—	6	3	100	16	206	31	—	—	99	32	166	166	577	248	249	101	14	—
Mousky	28,000	—	—	—	—	4	1	39	10	71	18	—	—	40	10	14	13	168	52	99	45	5	—
Bab-el-Sharia	95,000	—	—	—	—	9	1	115	27	194	25	1	—	158	40	87	33	564	126	247	100	11	—
Gamalia	81,700	—	—	—	—	7	4	121	26	168	30	—	—	96	27	63	30	455	117	230	89	34	—
Abbassia	127,200	—	—	—	—	9	9	165	56	450	67	2	1	134	54	136	30	896	217	226	118	258	6
Shoubra	134,100	—	—	—	—	4	—	165	38	459	77	2	—	242	62	132	7	1,004	184	252	77	47	1
Rod-el-Farag	129,000	—	—	—	—	8	4	178	40	275	26	1	—	137	54	125	33	724	157	168	67	27	—
Boulac I	84,100	—	—	—	—	4	1	340	99	185	71	1	—	88	34	88	74	706	279	244	134	10	—
Boulac II	54,100	—	—	—	—	2	1	90	9	65	19	—	—	44	14	38	31	239	74	103	70	9	1
Old Cairo	73,400	—	—	—	—	4	1	129	35	118	29	—	—	60	21	311	311	622	397	109	61	17	—
Heliopolis	56,800	—	—	—	—	4	4	41	9	177	32	6	—	56	13	101	11	385	69	93	39	44	1
Zeitoun	44,300	—	—	—	—	5	1	39	6	129	20	—	—	54	16	102	23	329	66	108	52	19	—
Helwan	53,100	—	—	—	—	4	1	34	7	63	11	—	—	21	10	16	14	138	43	137	100	8	1
TOTAL FOR CAIRO...	1,419,800	—	—	—	—	102	41	2,266	533	3,575	606	17	1,644	515	1,751	1010	9,355	2,706	3,181	1,527	601	12	—

TABLE No. 129.—DISTRIBUTION OF UNCERTIFIED DEATHS AND DEATH INQUIRIES IN THE VARIOUS DISTRICTS IN 1942

District	All Deaths	Uncertified Deaths					Percentage of Deaths Uncertified
		Investigated by District M.Os.	Investigated by District Hakimas	Investigated by Village Sanitary Barbers	Investigated by Village Dayas	District Totals	
Ezbekia	1,569	135	473	—	—	608	38·8
Abdine	2,436	782	825	—	—	1,607	66·0
Sayeda I	3,348	770	1,043	—	—	1,813	54·2
Sayeda II	2,175	466	828	—	—	1,294	59·5
Khalifa	3,436	930	1,721	—	—	2,651	77·2
Darb-el-Ahmar	3,312	759	1,408	—	—	2,167	65·4
Mousky	911	174	247	—	—	421	46·2
Bab-el-Sharia	3,513	469	1,093	—	—	1,562	44·5
Gamalia	3,130	532	962	—	—	1,494	47·7
Abbassia	3,663	127	494	—	—	621	17·0
Shoubra	5,033	1,053	2,504	30	8	3,595	71·4
Rod-el-Farag	4,004	566	1,821	—	—	2,387	59·6
Boulac I	4,289	1,059	2,241	—	—	3,300	76·9
Boulac II	1,833	491	703	—	—	1,194	65·1
Old Cairo	3,195	620	1,610	189	31	2,450	76·7
Heliopolis	1,460	321	376	—	—	697	47·7
Zeitoun	2,005	512	584	—	—	1,096	54·7
Helwan	2,023	319	500	606	73	1,498	74·0
TOTAL FOR CAIRO	51,335	10,085	19,433	825	112	30,455	59·3

TABLE No. 130.—ZYMOTIC DISEASES CASE AND DEATH RATES IN CAIRO DISTRICTS IN 1942

District	Population	Number of Cases recorded	Case rate per 1000 of Population	Number of Deaths	Death-rate per 1000 of Population	Ratio of Deaths to Cases recorded per cent
Ezbekia	57,700	371	6·430	85	1·473	22·9
Abdine	90,700	600	6·615	157	1·731	26·2
Sayeda I	72,000	492	6·833	171	2·375	34·8
Sayeda II	67,700	509	7·518	87	1·285	17·1
Khalifa	81,200	576	7·094	177	2·180	30·7
Darb-el-Ahmar	88,500	577	6·520	248	2·802	43·0
Mousky	28,000	168	6·000	52	1·857	31·0
Bab-el-Sharia	95,660	564	5·900	126	1·318	22·3
Gamalia	81,700	455	5·569	117	1·432	25·7
Abbassia	127,200	896	7·004	217	1·706	24·2
Shoubra	134,100	1,004	7·487	184	1·372	18·3
Rod-el-Farag	129,600	724	5·586	157	1·211	21·7
Boulac I	84,100	706	8·395	279	3·317	39·5
Boulac II	54,100	239	4·418	74	1·368	31·0
Old Cairo	73,400	622	8·474	397	5·409	63·8
Heliopolis	56,800	385	6·778	69	1·215	17·9
Zeitoun	44,300	329	7·427	66	1·490	20·1
Helwan	53,100	138	2·599	43	0·810	31·2
TOTAL FOR CAIRO	1,419,800	9,355	6·589	2,706	1·906	28·9

TABLE NO. 131.—TYPHOID FEVER CASE AND DEATH RATES IN CAIRO DISTRICTS IN 1942

District	Population	Number of Cases recorded	Case rate per 1000 of Population	Number of Deaths	Death-rate per 1000 of Population	Ratio of Deaths to Cases recorded per cent
Ezbekia	57,700	185	3.196	24	0.416	13.0
Abdine	90,700	292	3.219	46	0.507	15.8
Sayeda I	72,000	168	2.333	43	0.597	25.6
Sayeda II	67,700	209	3.087	16	0.236	7.7
Khalifa	81,200	161	1.983	21	0.259	13.0
Darb-el-Ahmar ...	88,500	206	2.328	31	0.350	15.0
Mousky	28,000	71	2.536	18	0.643	25.4
Bab-el-Sharia ...	95,600	194	2.029	25	0.262	12.9
Gamalia	81,700	168	2.056	30	0.367	17.9
Abbassia	127,200	450	3.558	67	0.527	14.9
Shoubra	134,100	459	3.423	77	0.574	16.7
Rod-el-Farag ...	129,600	275	2.122	26	0.201	9.5
Boulac I	84,100	185	2.200	71	0.844	38.4
Boulac II	54,100	65	1.201	19	0.351	29.2
Old Cairo	73,400	118	1.608	29	0.395	24.6
Heliopolis	56,800	177	3.116	32	0.563	18.1
Zeitoun	44,300	129	2.912	20	0.451	15.5
Helwan	53,100	63	1.186	11	0.207	17.5
TOTAL FOR CAIRO	1,419,800	3,575	2.518	606	.427	17.0

TABLE NO. 132.—TYPHUS CASE AND DEATH RATES IN CAIRO DISTRICTS IN 1942

District	Population	Number of Cases recorded	Case rate per 1000 of Population	Number of Deaths	Death-rate per 1000 of Population	Ratio of Deaths to Cases recorded per cent
Ezbekia	57,700	76	1.317	18	0.312	23.7
Abdine	90,700	113	1.246	41	0.452	36.3
Sayeda I	72,000	143	1.986	27	0.375	18.9
Sayeda II	67,700	133	1.965	19	0.281	14.3
Khalifa	81,200	245	3.017	50	0.616	20.4
Darb-el-Ahmar ...	88,500	100	1.130	16	0.181	16.0
Mousky	28,000	39	1.393	10	0.357	25.6
Bab-el-Sharia ...	95,600	115	1.203	27	0.282	23.5
Gamalia	81,700	121	1.481	26	0.313	21.5
Abbassia	127,200	165	1.297	56	0.440	33.9
Shoubra	134,100	165	1.230	38	0.283	23.0
Rod-el-Farag ...	129,600	178	1.373	40	0.309	22.5
Boulac I	84,100	340	4.043	99	1.177	29.1
Boulac II	54,100	90	1.664	9	0.166	10.0
Old Cairo	73,400	129	1.757	35	0.477	27.1
Heliopolis	56,800	41	0.722	9	0.158	22.0
Zeitoun	44,300	39	0.880	6	0.135	15.4
Helwan	53,100	34	0.640	7	0.132	20.6
TOTAL FOR CAIRO	1,419,800	2,266	1.596	533	0.375	23.9

TABLE No. 133.—DIPHTHERIA CASE AND DEATH RATES IN CAIRO DISTRICTS IN 1942

District	Population	Number of Cases recorded	Case rate per 1000 of Population	Number of Deaths	Death-rate per 1000 of Population	Ratio of Deaths to Cases recorded per cent
Ezbekia	57,700	58	1·005	24	0·416	41·4
Abdine	90,700	108	1·170	25	0·276	23·1
Sayeda I	72,000	87	1·208	29	0·403	33·3
Sayeda II	67,700	90	1·329	24	0·355	26·7
Khalifa	81,200	72	0·887	26	0·320	36·1
Darb-el-Ahmar ...	88,500	99	1·119	32	0·362	32·3
Mousky	28,000	40	1·429	10	0·357	25·0
Bab-el-Sharia ...	95,600	158	1·653	40	0·418	25·3
Gamalia	81,700	96	1·175	27	0·330	28·1
Abbassia	127,200	134	1·053	54	0·425	40·3
Shoubra	134,100	242	1·805	62	0·462	25·6
Rod-el-Farag ...	129,600	137	1·057	54	0·417	39·4
Boulac I	84,100	88	1·046	34	0·404	38·6
Boulac II	54,100	44	0·813	14	0·259	31·8
Old Cairo	73,400	60	0·817	21	0·286	35·0
Heliopolis	56,800	56	0·986	13	0·229	23·2
Zeitoun	44,300	54	1·219	16	0·361	29·6
Helwan	53,100	21	0·395	10	0·019	47·6
TOTAL FOR CAIRO	1,419,800	1,644	1·158	515	0·363	31·3

TABLE No. 134.—MEASLES CASE AND DEATH RATES IN CAIRO DISTRICTS IN 1942

District	Population	Number of Cases recorded	Case rate per 1000 of Population	Number of Deaths	Death-rate per 1000 of Population	Ratio of Deaths to Cases recorded per cent
Ezbekia	57,700	44	0·763	14	0·243	31·8
Abdine	90,700	71	0·783	44	0·485	62·0
Sayeda I	72,000	89	1·236	71	0·986	79·8
Sayeda II	67,700	75	1·108	27	0·399	36·0
Khalifa	81,200	93	1·145	78	0·961	83·9
Darb-el-Ahmar ...	88,500	166	1·876	166	1·876	100·0
Mousky	28,000	14	0·500	13	0·464	92·9
Bab-el-Sharia ...	95,600	87	0·910	33	0·345	37·9
Gamalia	81,700	63	0·771	30	0·367	47·6
Abbassia	127,200	136	1·069	30	0·236	22·1
Shoubra	134,100	132	0·984	7	0·052	5·3
Rod-el-Farag ...	129,600	125	0·965	33	0·255	26·4
Boulac I	84,100	88	1·046	74	0·880	84·1
Boulac II	54,100	38	0·702	31	0·573	81·6
Old Cairo	73,400	311	4·220	311	4·220	100·0
Heliopolis	56,800	101	1·778	11	0·194	10·9
Zeitoun	44,300	102	2·302	23	0·519	22·5
Helwan	53,100	16	0·301	14	0·264	87·5
TOTAL FOR CAIRO	1,419,800	1,751	1·233	1,010	0·711	57·7

**TABLE No. 135.—CEREBRO-SPINAL FEVER CASE AND DEATH RATES IN
CAIRO DISTRICTS IN 1942**

District	Population	Number of Cases recorded	Case rate per 1000 of Population	Number of Deaths	Death-rate per 1000 of Population	Ratio of Deaths to Cases recorded per cent
Ezbekia	57,700	8	0.139	5	0.087	62.5
Abdine	90,700	12	0.132	1	0.011	8.3
Sayeda I	72,000	5	0.069	1	0.014	20.0
Sayeda II	67,700	2	0.030	1	0.015	50.0
Khalifa	81,200	5	0.062	2	0.025	40.0
Darb-el-Ahmar	88,500	6	0.068	3	0.034	50.0
Mousky	28,000	4	0.143	1	0.036	25.0
Bab-el-Sharia ...	95,600	9	0.094	1	0.010	11.1
Gamalia	81,700	7	0.086	4	0.049	57.1
Abbassia	127,200	9	0.071	9	0.071	100.0
Shoubra	134,100	4	0.030	—	—	—
Rod-el-Farag ...	129,600	8	0.062	4	0.031	50.0
Boulac I	84,100	4	0.048	1	0.012	25.0
Boulac II	54,100	2	0.037	1	0.018	50.0
Old Cairo	73,400	4	0.054	1	0.014	25.0
Heliopolis	56,800	4	0.070	4	0.070	100.0
Zeitoun	44,300	5	0.113	1	0.023	20.0
Helwan	53,100	4	0.075	1	0.019	25.0
TOTAL FOR CAIRO	1,419,800	102	0.072	41	0.029	40.2

TABLE No. 136.—SCARLET FEVER CASE AND DEATH RATES IN CAIRO DISTRICTS IN 1942

District	Population	Number of Cases recorded	Case rate per 1000 of Population	Number of Deaths	Death-rate per 1000 of population	Ratio of Deaths to Cases recorded per cent
Ezbekia	57,700	—	—	—	—	—
Abdine	90,700	4	0.044	—	—	—
Sayeda I	72,000	—	—	—	—	—
Sayeda II	67,700	—	—	—	—	—
Khalifa	81,200	—	—	—	—	—
Darb-el-Ahmar	88,500	—	—	—	—	—
Mousky	28,000	—	—	—	—	—
Bab-el-Sharia ...	95,600	1	0.010	—	—	—
Gamalia	81,700	—	—	—	—	—
Abbassia	127,200	2	0.016	1	0.008	—
Shoubra	134,100	2	0.015	—	—	—
Rod-el-Farag ...	129,600	1	0.008	—	—	—
Boulac I	84,100	1	0.012	—	—	—
Boulac II	54,100	—	—	—	—	—
Old Cairo	73,400	6	0.082	—	—	—
Heliopolis	56,800	—	—	—	—	—
Zeitoun	44,300	—	—	—	—	—
Helwan	53,100	—	—	—	—	—
TOTAL FOR CAIRO	1,419,800	17	0.012	1	0.001	—

TABLE NO. 137.—MALARIA CASE AND DEATH RATES IN CAIRO DISTRICTS IN 1942

District	Population	Number of Cases recorded	Case rate per 1000 of Population	Malignant Cases	Death-rate per 1000 of Population	Ratio of Deaths to Cases recorded per cent
Ezbekia	57,700	21	0.364	—	—	—
Abdine	90,700	18	0.198	—	—	—
Saiyeda I	72,000	16	0.222	2	0.028	—
Saiyeda II	67,700	20	0.295	—	—	—
Khalifa	81,200	23	0.283	—	—	—
Darb-el-Ahmar ...	88,500	14	0.158	—	—	—
Mousky	28,000	5	0.179	—	—	—
Bab-el-Sharia ...	95,600	11	0.115	—	—	—
Gamalia	81,700	34	0.416	—	—	—
Abbassia	127,200	258	2.028	6	0.047	—
Shoubra	134,100	47	0.350	1	0.007	—
Rod-el-Farag ...	129,600	27	0.208	—	—	—
Boulac I	84,100	10	0.119	—	—	—
Boulac II	54,100	9	0.166	1	0.018	—
Old Cairo	73,400	17	0.232	—	—	—
Heliopolis	56,800	44	0.775	1	0.018	—
Zeitoun	44,300	19	0.429	—	—	—
Helwan	53,100	8	0.151	1	0.019	—
TOTAL FOR CAIRO	1,419,800	601	0.423	12	0.008	—

FEVER HOSPITAL, ABBASSIA

The number of admissions to the Fever Hospital, Cairo, during the year 1942 was 15,939 as compared with 13,474 in 1941 and 12,765 in 1940.

Of these, 7,378 were males and 3,365 females. The remainder 5,046 were persons accompanying patients.

The following tables give details of the admissions, discharges, etc.

TABLE NO. 138.—FEVER HOSPITAL, ABBASSIA, 1942

No. of Item	Item	Typhoid	Para-Typhoid	Diphtheria	Typhus	Influenza	Scarlet Fever	Measles	Dysentery	Chicken Pox	Puerperal Fever	Tetanus	Whooping Cough	Malta Fever	Pneumonia	Tuber- culosis	Cerebro Spinal Fever
1	No. of cases treated	2,060	618	892	2,209	1,943	3	180	52	41	12	55	20	5	553	54	
2	" " cured	1,750	575	579	1,692	1,943	3	162	47	41	9	29	17	5	326	50 persons sent to chest hosp.	
3	" deaths ...	310	43	313	517	—	—	18	5	—	3	26	3	—	127	4	
4	Mortality rate per cent in 1942 ...	15.4	6.9	35.1	23.4	0	0	10	9.6	0	25	47.2	15	0	22.9	8	
5	Mortality rate per cent in 1941 ...	14.4	5.9	28.8	18.3	—	—	20.3	8.8	—	20	38.8	12.2	—	25.1	—	
6	Mortality rate per cent in 1940 ...	13.7	7.1	35.5	15	3	0	18.2	5	0	25	47.6	2	6.6	28.6	12.2	
7	No. of cases sent by Health Offices ...	472	143	109	1,127	429	—	41	11	10	2	8	2	—	150	—	
8	No. of cases sent by benevolent or Govt. bodies ...	601	219	299	490	1,215	—	81	33	23	9	28	9	—	258	—	
9	No. of cases sent by private practitioners	842	207	385	468	205	3	35	4	4	1	18	7	—	97	—	
10	No. of cases admitted to the hosp. at their request ...	145	49	126	124	94	—	23	4	4	—	1	2	—	48	—	
11	No. admitted under mistaken diagnosis	1,246	465	15	57	1,438	3	71	14	3	5	11	9	5	553	54	

Details given in the following tables

TABLE NO. 139.—SHOWS THE AGE AND SEX DISTRIBUTION
OF TYPHOID CASES AND DEATHS

AGE	MALE PTS.			FEMALE PTS.			TOTAL		
	No. of Cases	No. of Deaths	Mortality Rate	No. of Cases	No. of Deaths	Mortality Rate	No. of Cases	No. of Deaths	Mortality Rate
			%			%			%
Less than 5 years	166	29	18.1	119	24	20.2	285	53	18.6
5-10 ... "	163	18	11.1	127	21	16.5	290	39	13.4
10-15 ... "	156	16	10.3	143	18	12.6	299	34	11.4
15-20 ... "	191	22	11.5	105	14	13.4	296	36	12.2
20-25 ... "	210	26	12.4	95	13	13.7	305	39	12.8
25-30 ... "	151	20	13.3	50	5	10.0	201	25	12.5
30-40 ... "	144	18	12.5	73	16	21.9	217	34	15.7
40-50 ... "	55	16	29.1	46	14	30.4	101	30	29.7
More than 50,,	46	15	32.6	20	5	25.0	66	20	30.3
TOTAL ...	1,282	180	14.1	778	130	16.8	2,060	310	15.4

TABLE NO. 140.— SHOWS THE AGE AND SEX DISTRIBUTION OF
PARATYPHOID PATIENTS AND THEIR MORTALITY RATES

AGE	MALE PTS.			FEMALE PTS.			TOTAL		
	No. of Cases	No. of Deaths	Mortality Rate	No. of Cases	No. of Deaths	Mortality Rate	No. of Cases	No. of Deaths	Mortality Rate
			%			%			%
Less than 5 years	41	5	12.2	27	3	11.1	68	8	11.7
5-10 ... "	28	1	3.6	22	1	4.5	50	2	4
10-15 ... "	54	2	3.7	34	2	5.8	88	4	4.5
15-20 ... "	92	3	3.3	27	—	—	119	3	2.5
20-25 ... "	87	3	3.4	23	1	4.3	110	4	3.6
25-30 ... "	64	7	10.8	22	4	18.2	86	11	12.8
30-40 ... "	49	5	10.2	14	1	7.1	63	6	9.5
40-50 ... "	18	3	16.6	6	1	16.7	24	4	16.7
More than 50,,	7	1	14.3	3	—	—	10	1	10
TOTAL ...	440	30	6.8	178	13	7.3	618	43	6.9

TABLE NO. 141.—SHOWS THE AGE AND SEX DISTRIBUTION OF
DIPHTHERIA PATIENTS AND THEIR MORTALITY RATES

AGE	MALE PTS.			FEMALE PTS.			TOTAL		
	No. of Cases	No. of Deaths	Mortality Rate	No. of Cases	No. of Deaths	Mortality Rate	No. of Cases	No. of Deaths	Mortality Rate
			%			%			%
Less than 5 years	421	155	36.8	288	102	35.4	700	257	36.2
5-10 ... "	66	26	39.4	64	25	39.1	130	51	39.2
10-15 ... "	12	2	16.7	12	—	—	24	2	8.3
15-20 ... "	1	—	—	2	1	50.0	3	1	33.3
20-25 ... "	4	—	—	5	—	—	9	—	—
25-30 ... "	3	2	66.7	4	—	—	7	2	28.5
30-40 ... "	5	—	—	—	—	—	5	—	—
40-50 ... "	1	—	—	1	—	—	2	—	—
More than 50,,	1	—	—	2	—	—	3	—	—
TOTAL ...	514	185	35.9	378	128	33.8	892	313	35.1

TABLE NO. 142.—SHOWS THE AGE AND SEX DISTRIBUTION OF
TYPHUS PATIENTS AND THEIR MORTALITY RATES

Age	MALE PTS.			FEMALE PTS.			TOTAL		
	No. of Cases	No. of Deaths	Mortality Rate	No. of Cases	No. of Deaths	Mortality Rate	No. of Cases	No. of Deaths	Mortality Rate
			%			%			%
Less than 5 years	64	17	26·6	52	16	30·8	116	33	28·4
5-10 years.	80	16	20	69	14	20·3	149	30	20·1
10-15 „	119	25	21	92	14	18·2	211	39	18·5
15-20 „	165	28	17	111	14	12·6	276	42	15·8
20-25 „	206	44	20·8	121	22	18·2	327	66	20·2
25-30 „	170	48	21·8	118	23	19·5	288	71	24·7
30-40 „	248	69	27·8	159	33	20·8	407	102	25·6
40-50 „	146	45	30·8	99	27	27·3	245	72	29·4
More than 50 years	115	38	33	75	24	32	190	62	32·6
TOTAL ...	1,313	330	25·1	896	187	20·9	2,209	517	23·4

TABLE NO. 143.—SHOWS THE AGE AND SEX DISTRIBUTION OF
SCARLET FEVER PATIENTS

Age	Males	Females	Total
Less than 5 years	1	—	1
5-10 years	—	2	2
10-15 „	—	—	—
15-20 „	—	—	—
20-25 „	—	—	—
25-30 „	—	—	—
30-40 „	—	—	—
40-50 „	—	—	—
More than 50 years	—	—	—
TOTAL ...	1	2	3

**TABLE No. 144.—SHOWS THE AGE AND SEX DISTRIBUTION OF
MEASLES PATIENTS AND THEIR MORTALITY RATES**

Age	MALE PTS.			FEMALE PTS.			TOTAL		
	No. of Cases	No. of Deaths	Mortality Rate	No. of Cases	No. of Deaths	Mortality Rate	No. of Cases	No. of Deaths	Mortality Rate
			%			%			%
Less than 5 years ...	73	10	13.7	40	6	15	113	16	14.2
5-10 years ...	12	—	—	12	—	—	24	—	—
10-15 „ ...	10	—	—	9	—	—	19	—	—
15-20 „ ...	6	—	—	3	1	33.3	9	1	11.1
20-25 „ ...	2	—	—	1	—	—	3	—	—
25-30 „ ...	2	—	—	2	—	—	4	—	—
30-40 „ ...	4	—	—	4	1	25	8	1	12.5
40-50 „ ...	—	—	—	—	—	—	—	—	—
More than 50 years ...	—	—	—	—	—	—	—	—	—
TOTAL ...	109	10	9.2	71	8	11.3	180	18	10

CEREBRO-SPINAL FEVER

1.—No. of cases 140
 Male Cases 100 Female Cases 40

2.—Out of these Cases :—

(a) Cases diagnosed	Pneumococcal Meningitis (8 males ; 5 females)	13	} All the cases ended fatally.
(b) „ „	Tuberculous Meningitis (12 males ; 2 females)	14	
(c) „ „	Influenzal Meningitis	1 male	
(d) „ „	Streptococcal Meningitis	3 „	
(e) „ „	Nonspecific Meningitis	2 „	
(f) „ „	Meningococcal Meningitis (74 males ; 32 females)	106	

**TABLE No. 145.—SHOWS THE AGE AND SEX DISTRIBUTION OF CEREBRO-SPINAL FEVER PATIENTS AND
THEIR MORTALITY RATES**

Age	MALES			FEMALES			TOTAL		
	No. of Cases	No. of Deaths	Mortality Rate	No. of Cases	No. of Deaths	Mortality Rate	No. of Cases	No. of Deaths	Mortality Rate
			%			%			%
Less than 5 years ...	12	5	41.7	6	5	83.3	18	10	55.5
5-10 years ...	10	6	60	7	2	28.6	17	8	47.1
10-15 „ ...	9	2	22.2	7	1	14.3	16	3	18.7
15-20 „ ...	4	1	25	3	1	33.3	7	2	28.6
20-25 „ ...	13	6	46.1	3	1	33.3	16	7	43.7
25-30 „ ...	7	2	28.6	—	—	—	7	2	28.6
30-40 „ ...	13	8	61.5	5	3	60	18	11	61.1
40-50 „ ...	4	4	100	1	—	—	5	4	80
More than 50 years ...	2	1	50	—	—	—	2	1	50
TOTAL ...	74	35	47.3	32	13	40.6	106	48	45.3

Passengers

During 1942 there were 11,893 passengers who arrived in Cairo from infected countries, as compared with 10,562 in 1941.

Out of this total, 172 passengers arrived via Suez, 6,449 passengers arrived via Kantara; 1,326 passengers arrived by car via Ismailia and 3,946 arrived by air. Moreover, 7,082 passengers arriving from the Sudan through Shallal were observed for smallpox and meningitis.

All these passengers, with the exception of 70 who could not be traced, were observed during the regulation period, giving a percentage of 99.4 per cent observed.

Pilgrims

The number of pilgrims arriving in Cairo from the Hedjaz this year was 945 as compared with 520 in the previous year.

All the returning pilgrims underwent the regulation period of observation and were found in good health.

Of the 945 pilgrims who left for the Hedjaz, 15 pilgrims did not return, 14 remained in the Hedjaz, and 1 left direct for Wadi-Halfa.

In addition, 50 pilgrims from other districts than Cairo were observed and found in good health.

11 foreign pilgrims were also observed and found in good health.

Officials and employees of El Tor Mission numbering 57 were observed and found in good health.

Sanitary Control of Public Women

The total number of registered prostitutes for the year 1942 was 1,071. 288 of these were struck off the register during the year.

The total number of examinations held was 55,036.

127 prostitutes were found suffering from venereal diseases.

The number of arrested women was 2,624 as compared with 3,045 in 1941. The incidence of disease amongst them was as follows:—

Acute Gonorrhoea	...	...	...	...	16
Chronic Gonorrhoea	...	...	...	...	287
Primary Syphilis	...	...	...	...	7
Secondary Syphilis	...	...	...	...	203
Soft Chancre...	...	.	...	...	56
Scabies	...	...	...	...	2
TOTAL	...	...	...	...	<u>571</u>

Wasserman Examination of the Blood.

Prostitutes: 234 specimens were found positive.

Arrested women: 119 specimens were found positive.

POLICE HEALTH OFFICE

The strength of the Cairo City Police was 12,435 men in 1942. The following is a brief statement on the work carried out by this office during the year.

Medical Work.

Policemen examined for sick-leaves	...	...	...	...	...	...	...	...	875
Other police personnel examined for sick leaves	...	...	...	...	...	...	...	...	1,229
Medico-Legal Reports	...	...	...	...	...	...	...	...	30,280
Motor car and cab drivers examined for practising professions	...	...	...	...	...	...	...	...	4,002
Candidates examined for service in police force	...	...	...	...	...	...	...	...	171

Sanitary Work.

Inspection of police units	...	...	...	...	...	...	...	...	34
Number vaccinated against small-pox	...	...	...	...	...	...	...	...	636
Number vaccinated against typhoid (two injections)	...	...	...	...	...	...	...	...	1,848

The more common diseases among non-commissioned officers and policemen were : toothache, constipation, rheumatism, bronchitis and hydrocele. The number of cases of these diseases were : 520, 513, 485, 464 and 452 respectively.

The diseases more common among officers and civilians were : rheumatism, bronchitis, gastritis, and tonsillitis. The number of cases of these diseases were 250, 242, 149, 108, respectively.

46 police N.C.O's. and men were sent to the fever hospital suffering from typhoid and paratyphoid fever. 1,104 persons were put under observation for infectious diseases during the year.

Unhealthy, Inconvenient and Dangerous Establishments

The following establishments were licensed during the year. Under Law No. 13 of August 28, 1904, and Arrêté of the Ministry of Interior of August 29 of the same year.

TABLE No. 146

1st. Class			2nd Class			3rd Class			Grand Total
Saha	Zabt	Total	Saha	Zabt	Total	Saha	Zabt	Total	
126	117	243	1,475	227	1,702	401	57	458	2,403

A total of 16,489 Unhealthy, Inconvenient and Dangerous establishments were inspected during 1942. Of these, 13,851 were found satisfactory and 2,638 unsatisfactory.

2,725 Procès-verbaux of contravention were drawn up against establishments exploited without licences and 1,442 contraventions were drawn up for lacking conditions in licensed establishments making a total of 4,167 contraventions.

Only one ministerial Arrêté was issued during the year in respect of an unhealthy establishment.

82 Cinemas, theatres, and other kinds of public establishments were inspected during the year under Law No. 1 of 1904 substituted by Law No. 38 of 1940.

General Sanitation

The activities of the sanitation section during the year 1942 can be summarised as follows.

1.—*Water.*

Samples of water were regularly taken from the different main water supplies of the City, Giza and Helwan in order to ensure the good quality of the water. Also samples of water were taken from taps in different parts of the city and from swimming baths. A total of 244 samples were taken from different sources during the year of which 30 samples were found unsatisfactory and the necessary steps were taken.

2.—*Free Water Taps.*

6 free water taps were erected, 4 in Cairo and 2 in Tura el Faroukia village, Helwan. A free water tap was proposed in Maassara village but was not erected owing to lack of piping.

3.—*Vegetable Washing Basins.*

Work was commenced during the year on two basins for washing vegetables intended for sale. One of these is sited in Mahmasha (Shoubra) and the other in Mataria.

4.—*Complaints.*

Some 906 complaints were received and dealt with during the year. 345 of these were in respect of mosquito breeding places, and 536 about sanitary systems of houses and fencing waste lands and cleanliness of streets and 25 were in respect of quack doctors.

5.—*Quack Doctors Squad.*

This squad continued to pursue quack doctors and ambulant vendors selling medicines and drugs without licences. Sentences of fine, confiscation and closure were given in 15 contraventions drawn up against offenders.

6.—*Mosques.*

4 water systems of private mosques were connected with the main sewers and 7 systems were repaired and opened for use.

7.—*Cemeteries.*

Approval was given to two sites for cemeteries for British troops, one in Abbassia and the other in Heliopolis.

8.—*Gulleys.*

Slap water gulleys were proposed in the poorer quarters to stop the inhabitants throwing their waste water into the streets. It was suggested that if such gulleys were combined with free water taps they would be kept in a clean condition. One such combination (gully and free water tap) was installed in Mohamady quarter with two single gulleys in close proximity.

9.—*Vidange.*

3,131 permits were given for evacuation of private cisterns, and 605 owners of houses were notified to evacuate the cisterns of their houses.

In the case of owners failing to evacuate the cisterns, the contractor is ordered to carry the work and the cost debited to the owners.

TABLE NO. 147.—NUMBER OF MILK SAMPLES TAKEN DURING 1942 AND THE RATE OF ADULTERATION

Total Number of Samples	Adulterated Samples								Total number of adult. samples	Number of genuine samples	Percentage of adulteration
	Skimming		Addition of water		Both skimming and addition of water		Addition of sugar and salt				
No. of Samples	No. of Samples	Rate of adult.	No. of Samples	Rate of adult.	No. of Samples	Rate of adult.	Sugar	Salt			
19,551	1,243	6.4 %	904	4.6 %	542	2.8 %	1	1	2,691	16,860	13.8 %

TABLE NO. 148.—NUMBER OF CONTRAVENTIONS DRAWN UP DURING THE YEAR
UNDER THE FOLLOWING ACTS

No. of Procès-Verbaux drawn up under law No. 48, of 1941	No. of Procès-Verbaux drawn up against milk vendors under Arrêté of Ministry of Interior dated 18.5.1925	No. of Procès-Verbaux drawn up under Arrêté of the Ministry of Interior dated 13.1.15 re Itinerant Vendors	No. of Procès-Verbaux drawn up under Arrêté of Cairo Governorate dated 27.3.1911. public markets
3,069	1,481	581	849

Number of milk vendors licensed 380
 Number of ambulant vendors licensed 8
 Number of cases of food poisoning 524
 Number of complaints received and dealt with 523

TABLE No. 149.—GIVING NUMBERS AND QUANTITIES OF FOODSTUFFS DESTROYED BY CONSENT OF OWNERS, AND NUMBER OF SPECIMENS TAKEN AND THE RESULTS OF THEIR ANALYSIS

Articles of Food	Foodstuffs destroyed					Samples taken					Percentage of adulteration	Percentage of decomposition	Remarks
	No.	Bottle	Tin	Litre	Oke	No. of Samples	Genuine	Adulterated	Decomposed	No result			
A.—Fresh Foods :													
Fruits and vegetables...	26,241	—	—	—	34,463	—	—	—	—	—	—	—	—
Fish	—	—	—	—	4,483.75	—	—	—	—	—	—	—	—
Meat	411	—	—	—	2,481.25	—	—	—	—	—	—	—	—
Other articles as poultry	2,847	—	—	—	89.25	—	—	—	—	—	—	—	—
B.—Cooked or Prepared Foods													
	20,309	—	—	—	9,689	—	—	—	—	—	—	—	—
C.—Preserved Foods :													
Jam...	—	—	—	—	—	162	71	—	91	—	56.2	—	—
Milk and its products...	—	—	2,754	—	—								
Vegetables and fruits	—	—	2,365	—	—								
Meat (preserved and salted)	—	—	1,558	—	187.75								
Salted fish and sardine	—	—	29,899	—	253	1	1	—	—	—	—	—	—
Other articles of food (e.g. pickles)	—	—	555	—	1,232.25	—	—	—	—	—	—	—	—
D.—Oils :													
Olive oil	—	—	—	—	—	477	428	30	19	6.3	4	Quantities of destroyed oil included with masli.	
Sesame oil		—	—	—	—								
Linseed oil		—	—	—	—								
Lettuce oil		—	—	—	—								
Oat oil		—	—	—	—								
Cotton seed oil		—	—	—	—								
Other oils fit for consumption	—	—	—	—	—	—	—	—	—	—	—	—	

Boulac Health Group

In-Patient departments for chest diseases, venereal and skin diseases, and maternity and child welfare were opened this year within the Boulac Health Group. The remaining in-Patient departments as well as the out-patient clinic were not opened for lack of equipment.

The following is a statement of the work done by each department:—

Chest Diseases Department.

Out of 10,944 new patients who attended treatment during the year, 850 were T.B (553 positive-sputum for 297 negative). 313 deaths were recorded. Among 998 contact of positive cases, 13 developed pulmonary T.B.

The following is the distribution of the 850 tuberculous patients according to localities:—

759	Cairo.
10	Governorates.
22	Menoufia.
43	Kaliubia.
1	Gharbia.
1	Sharkia.
3	Dakahlia.
9	Giza.
1	Assiut.
1	Aswan.

The work done by this section was as follows:—

11,347	patients attended the Department.
67	Pneumothorax.
2,266	Sputum analysis.
1,143	X-Ray.
3,405	home visits by { nurses 3,042. doctors 363.
9,219	treated in their homes.

Contributions to destitute patients during the year amounted to L.E. 434.312.

Venereal and Skin Diseases Department.

Total number attending treatment was 16,991 distributed as under:—

2,290	Gonorrhoea	2,075	cured and	215	discontinued treatment.
* 1,280	Syphilis	1,220	„ „	137	„ „
† 361	Other Ven. Dis.	223	„ „	63	„ „
13,060	Skin Dis.	12,708	„ „	352	„ „
16,991		16,226		767	TOTAL.

* From these 77 persons were attending since 1941.

† „ „ 75 „ „ „ „ 1941.

Maternity and Children Department.

5,901	Multipareas.
1,582	Primipareas.
1,256	Confinements.
14,984	Children treated as follows :—
1,664	for Enteritis.
1,632	„ Pneumonia.
7	„ Infectious diseases.
8	„ Congenital syphilis.
893	„ Skin diseases.
2,807	„ Other diseases.
7,815	„ Medical exams. and lectures.
24	„ circumcisions.
12	„ Vaccinated against small-pox.
122	„ Inoculated against diphtheria.]
14,984	TOTAL.]

Deaths amongst children were 73 distributed as follows :—

- 41 during the first year of age.
- 30 from 1-2 years of age.
- 2 from 2-5 years of age.

