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CYPRUS

ANNUAL
MEDICAL & SANITARY REPORT
1939

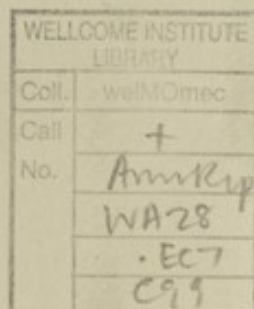
NICOSIA

PRINTED AT THE CYPRUS GOVERNMENT PRINTING OFFICE

1940

CONTENTS

	Page		Page
CHAPTER I.—ADMINISTRATION :		(c) Vital Statistics	6
(A) Financial and Medical Stores	1	(d) Hygiene and Sanitation :	
(B) Legislation affecting Public Health enacted during the year	1	Reorganization of the Sanitary Staff ..	6
CHAPTER II.—PUBLIC HEALTH :		Rural Development Scheme Areas ..	6
(A) General Remarks :		CHAPTER III.—PORT HEALTH WORK ..	7
(i) Statistics	1	CHAPTER IV.—MATERNAL AND CHILD WELFARE	7
(ii) Nutrition	1	CHAPTER V.—HOSPITALS, DISPENSARIES, CLINICS AND LABORATORIES :	
(iii) Trades and Industries (Regulation) Law, 1938	2	Hospitals	7
(iv) Control of Dangerous Drugs	2	New Hospital, Nicosia	7
(B) Diseases :		Mental Hospital	8
Diagrams showing percentage of—		Leper Farm	8
(a) General Systemic Diseases	2	Dispensaries	8
(b) Communicable Diseases	2	Eye Clinics	8
Communicable Diseases :		Dental Clinics	8
(a) Insect-borne Diseases :		Venereal Disease Clinics	9
Malaria	2	Athalassa Sanatorium	9
(b) Infectious Diseases :		Surgical Activities	9
Meningitis	3	Table showing principal causes of deaths in Hospitals	9
Trachoma	3	CHAPTER VI.—TRAINING OF LOCAL MEDICAL AND HEALTH PERSONNEL	12
Tuberculosis	3		
Venereal Diseases	4		
Typhoid	5		
Other Infectious Diseases	5		
(c) Helminthic Diseases	5		



Annual Medical and Sanitary Report for the Year 1939.

CHAPTER I.—ADMINISTRATION.

(A) FINANCIAL.

The total expenditure of the Medical Department was :—

	1936			1937			1938			1939		
	£	s.	p.	£	s.	p.	£	s.	p.	£	s.	p.
Personal Emoluments ..	22,835	19	5	24,859	19	6	26,426	9	3	27,743	11	1
Other Charges ..	30,719	1	0	35,735	19	8	35,515	8	2	41,066	11	5
Total ..	£53,555	0	5	£60,595	19	5	£61,941	17	5	£68,750	2	6

This represents 6.73% of the total expenditure of the Island during 1939, i.e. £1,021,942. 13s. 7p.

The total revenue of the Medical and Sanitary Department amounted to £6,092. 0s. 2p. as against £6,031. 2s. 4p. in 1938. Details of revenue are as follows :—

	£	s.	p.
1. Sale of Medicines ..	1,515	3	6
2. Hospital Receipts ..	2,674	16	3
3. Other ..	582	6	6
4. Analytical and Bacteriological Fees ..	166	7	2
5. Registration of Diplomas ..	133	11	0
6. Quarantine Dues and Health Certificates ..	1,019	15	3
Total ..	£6,092	0	2

Revenue from holders of Mukhtars' certificates was £2,750. 18s. 1p. as against £2,671. 0s. 8½p. during 1938.

	£	s.	p.
Value of stock on 1st January, 1939 ..	3,064	1	2
Bought during 1939 ..	14,368	7	6
	£17,432	8	8
Value of stock on 31st December, 1939 ..	6,838	16	4
Value of stock issued equals ..	£10,593	12	4

(B) LEGISLATION AFFECTING PUBLIC HEALTH ENACTED DURING THE YEAR.

The following Laws were passed during the year :—

No. 12 of 1939.—A Law to amend the Medical Registration Law, 1936.

No. 13 of 1939.—A Law to amend the Law relating to the Registration of Dentists.

No. 21 of 1939.—A Law to amend the Public Health (Villages) Laws, 1936 to 1938.

PUBLIC HEALTH (VILLAGES) LAWS, 1936 TO 1939.

During the year 1939, 50 Village Health Commissions have made rules under section 9 of the above-mentioned Laws, thus bringing the total to 323 Village Health Commissions.

CHAPTER II.—PUBLIC HEALTH.

(A) GENERAL REMARKS.

(i) STATISTICS.

The following tables show the number of cases of General Systemic and Communicable Diseases treated in Government Institutions :—

(a) General Systemic Diseases :

(1) Digestive system ..	19,823
(2) Eye ..	8,559
(3) Skin Diseases ..	10,528
(4) Respiratory system ..	8,822
(5) General and Other Diseases ..	25,100
(6) Nervous system ..	7,831
(7) Organs of Locomotion ..	1,226
Total ..	81,889

(b) Communicable Diseases :

(1) Malaria ..	11,268
(2) Influenza ..	5,748
(3) Other Diseases ..	2,255
(4) Tuberculosis ..	848
(5) Gonorrhoea ..	1,277
(6) Syphilis ..	483
(7) Meningitis ..	112
Total ..	21,991

Total cases (a) and (b) .. 103,880.

(ii) NUTRITION.

Following various meetings of the Standing Committee on Nutrition a preliminary report on this subject was prepared. This report was printed in 1940.

As a result of recommendations put forward by the Committee several feeding experiments are being carried out over the Island. These are at present confined to schoolchildren all of whom have been previously examined by Medical Officers of this Department and the Cyprus Mines Corporation. Milk in some form is the food being utilized although in certain of the Municipalities soup-kitchens have also been set up where one substantial meal is given to each schoolchild on every school day.

(iii) TRADES AND INDUSTRIES (REGULATION) LAW, 1938.

The Medical Department has attempted to work on a three-year plan at the expiration of which period it is hoped that trade premises will have been brought to a sufficiently high standard to allow of the introduction of specific regulations.

(iv) CONTROL OF DANGEROUS DRUGS.

This is not entirely satisfactory and the laws and regulations dealing with the matter of control are being revised and strengthened.

The number of permits issued for the local transfer of dangerous drugs between authorized persons was 251. During the year five persons were prosecuted by the Police for offences in connection with dangerous drugs and all were convicted.

(b) DISEASES.

GENERAL SYSTEMIC AND COMMUNICABLE DISEASES TREATED IN GOVERNMENT INSTITUTIONS.

TOTAL CASES (a) & (b) 103,880.

1939.

(a)—General Systemic Diseases 81,889.

***** General and Other Diseases 30.7 per cent.

***** Digestive System 24.2 per cent.

***** Skin Diseases 12.9 per cent.

***** Respiratory System 10.7 per cent.

***** Eye 10.5 per cent.

***** Nervous System 9.6 per cent.

* Organs of Locomotion 1.4 per cent.

(b)—Communicable Diseases 21,991.

***** Malaria 51.2 per cent.

***** Influenza 26.2 per cent.

***** Other Diseases 10.7 per cent.

***** Gonorrhoea 5.8 per cent.

**** Tuberculosis 3.9 per cent.

** Syphilis 2.2 per cent.

(1) COMMUNICABLE DISEASES.

(a) Insect-borne Diseases.

MALARIA.

Nicosia District.—The result of the anti-malarial work carried out in the very highly malarious area of the Tilliria area has been partly described in the Annual Report for 1938. The second year's activities were carried out on the same lines and have now clearly indicated the superiority of the use of the paris-green-water mixture, for controlling anopheline breeding places, over any other system employed so far. That the result has been satisfactory is clearly indicated by the blood indices of infants and children as well as from the sharp drop in the number of malaria cases presenting at the Rural Medical Station at Pyrgos. The tables given below serve to illustrate this statement:—

TABLE I.

Babies examined in the Tilliria area:

Year	Number Examined	Percentage of blood positive
1938	50	4%
1939	79	Nil

TABLE II.

Children examined in 10 Tilliria villages during 1937, 1938 and 1939, and percentage of blood positives for each year.

Year	Number Examined	Percentage of blood positive
1937	462	69.9%
1938	348	41.7%
1939	333	16.5%

TABLE III.

Yearly number of malaria cases attended by Medical Officer, Pyrgos (Tilliria), in relation to all cases:—

Year	Total Patients	Malaria Cases	Percentage of Malaria Cases
1936	1,171	487	41.5
1937	922	182	19.6
1938	1,780	167	9.3
1939	2,080	100	4.8

Paphos District.—Following these successful results in the Tilliria area it was decided to extend control to the District of Paphos, and I am pleased to record that the results obtained, in this intensely malarious District during the first year, are very encouraging indeed.

Paphos, in comparison to the Tilliria area, has much more breeding surface to be controlled and such work has to be continued considerably longer than in Tilliria and other Districts. In addition to this, and the very nature of this hilly District which renders control operations very difficult, extensive dangerous breeding places are constantly being created by careless irrigation schemes made possible through ancient "water rights". The rainfall between December, 1938, and March, 1939, was 20.0 inches against 12.64 for the same period in 1937-38. There was therefore every reason to believe that, had the previous sketchy control measures been carried out, the District would certainly have shown a bad malaria rate.

As will be seen from Table IV in Paphos District, many of the malarious villages have also shown a drop in the parasite indices.

TABLE IV.

Villages	Positive blood percentage			
	1936	1937	1938	1939
1. Souskion	81.1	98.1	84.0	48.8
2. Kouklia	78.6	89.8	74.0	52.0
3. Stavrokono	68.2	92.3	* 70.3	31.7
4. Kili	37.8	46.0	73.9	36.0
5. Thelettra	50.0	65.7	85.0	43.9
6. Yiolou	76.6	80.3	82.5	30.2
7. Khrysokhou	61.1	83.7	81.8	31.4
8. Marathounda	63.9	78.0	82.8	50.0

* Spring of 1939.

Paphos is the third largest District of the Colony having an area of 574 square miles and it is estimated that at least 450 square miles of this area had to be controlled. The cost of anti-malarial measures in that District, in respect of labour and larvicides, amounted to approximately £1,000 or 4*p.* (about 5*d.*) per head of the entire population of the District, which is estimated to be 47,000.

The actual anti-malarial field work in the Tilliria area and the Paphos District was carried out entirely by the Government Medical and Sanitary Staff while Rockefeller Foundation Staff members were responsible for blood parasite, spleen rates and mosquito catches over all areas controlled.

It is now my intention to extend this work to cover the next most Malarious Districts—Limassol and Larnaca—during the ensuing year.

Kyrenia District.—With the staff of the Bureau of Malaria Control, Rockefeller Foundation officials have controlled a great part of this District and at the same time have been responsible for much work of an experimental nature. Certain of this latter work will, it is thought, be successful and will then be brought into use over the entire Island.

The number of malaria cases reported by the Government Hospitals and Rural Dispensaries during the last three years were: 1937, 18,273; 1938, 11,361; 1939, 11,183.

Mr. A. McLaughlan, A.M.I.C.E., who was seconded to this Department from the Public Works Department during November, 1939, for engineering work of a sanitary nature, was given a Rockefeller Foundation Fellowship and proceeded to America during September, 1938. He took up studies at Harvard University followed by field work in the Southern States where conditions approximate those in Cyprus. He recently returned to this Colony and is now doing duty with this Department as a Sanitary Engineer.

Free Distribution of Quinine.

The arrangements made for the free issue of this essential drug to malarious villages instituted in 1938 have been continued but effective mosquito control measures have had their effect over considerable areas and there was less demand for quinine. The total number of tablets (3 gr.) of free quinine issued up to the end of the year were 385,900.

(b) Infectious Diseases.

MENINGITIS.

Sporadic cases of this disease were reported from various parts of the Colony. I believe, however, that the disease is now gradually dying down to normal endemic form. The number of cases reported since 1936 are: 1936, 38; 1937, 837; 1938, 281; 1939, 112.

TRACHOMA.

During the latter part of 1939 I proceeded to Cairo and through the courtesy of Dr. Makhmoud Pasha, Minister of Health, Egypt, was given an opportunity of observing, in great detail, their method of dealing with Trachoma by utilizing mobile tended hospitals and dispensaries. Considering that a substantial balance now rests with the Treasurer of the Princess Royal Charitable Fund, it is my intention to recommend the allocation of sufficient funds for the purchase of such a hospital for Cyprus. Briefly the method recommended will be that the hospital be set up centrally in highly Trachomatous Districts where it will remain for from 6-8 months and then be removed by lorries to another District. The mobile dispensary about to be purchased and equipped locally from funds given by this Government and the British Council will operate from the tented hospital. This together with the Trachoma centres already in operation and the propaganda in the form of posters and pamphlets arranged for should do much to eventually bring this disease under control.

New cases reported during 1939 amounted to 2,308 as compared with 2,262 the previous year. It is known however that approximately 30,000 cases of Trachoma are at present to be found in Cyprus.

TUBERCULOSIS.

In spite of the absence of Dr. Bevan on study leave in England, when the work of administration had, perforce, to be assumed by me, considerable progress was made in the control of this disease. This was due to the very successful operation of and the keenness displayed by the public for the Dispensaries at Nicosia and Larnaca together with the continued useful work rendered by the Anti-Tuberculosis League. Care-Committees organized by the League were particularly active over the Island and the Nicosia Committee alone was responsible for giving aid in the form of food, clothing and nursing attention throughout the year to 84 families in which cases of Tuberculosis, pre-tuberculars and young contacts were present.

Dr. Bevan, Tuberculosis Officer, returned to the Colony during June of 1939, having spent 8 months in England on study leave, and at once prepared an exhaustive programme for the continued control of Tuberculosis which took the form of the Lancashire scheme which he had closely studied in England. His recommendations slightly modified and then approved by me, were sent to Government and should come into operation during the early months of 1940. His scheme envisages a representative committee of the League who will be responsible for the administration of the Dispensaries now in operation at Nicosia and Larnaca and the one to be opened shortly at Limassol, while Care-Committees, whose duties will be confined to care work alone—as recommended by the medical officers of Dispensaries—will continue their work for each centre. I have also selected one of the Beirut trained Cypriot Sisters as Matron for the New Sanatorium at Kyperounda and it is hoped that, in spite of the present emergency, it will be possible to send her to England, for certain post-graduate training in Tuberculosis, before she takes up her duties at Kyperounda.

The new sanatorium was well on its way to completion as a building as the year ended. Situated at an elevation of 4,000 feet, in a secluded but delightful valley, it will be an imposing structure and a great asset to the Tuberculosis programme. It was my original intention to retain the Tuberculosis Officer at headquarters and to place a Cypriot Medical Officer at Kyperounda, as resident physician, but I have now decided otherwise and Dr. Bevan will be stationed there and at the same time supervise Island activities in this field. For this purpose a suitable residence is about to be constructed. Providing equipment now on order is forthcoming this Sanatorium should be ready to receive patients during September, 1940.

The success of the programme of work is shown, to some extent, by the number of cases of pulmonary tuberculosis notified during 1937, 1938 and 1939. They are: 1937, 257; 1938, 190; 1939, 174.

Collapse therapy was commenced on suitable cases and during the latter part of the year 30 artificial pneumothoraces were attempted. The results obtained were as follows:—

Satisfactory collapse	3 cases.
Adhesions present	17 cases.
Hydropneumothorax	7 cases.
Failed Induction	5 cases.
Abandoned	4 cases.

Five phrenic crushes were performed and of these 4 followed failure to establish an A.P. It has not yet been possible to do any adhesion section but it is expected that this will start early next year. At the Sanatorium there were 89 admissions during the year, 35 deaths occurred and of those discharged 22 are recorded in the institution as clinically improved.

Athalassa Sanatorium.

The accommodation at this Sanatorium remains the same—i.e. 53 beds of which 31 are for male and 22 for female patients. The following table provided by the Medical Officer-in-charge is of interest:—

TABLE I.

	Males.	Females.	Total.
Remaining at end of 1938	31	19	50
Admitted	57	32	89
			139
Discharged	36	15	51
Deaths	20	15	35
			86
Remaining at end of 1939	32	21	53

VENEREAL DISEASES.

The treatment of venereal disease is carried out chiefly at Government Venereal Disease Clinics, five in number, one at the principal town in each District, except Kyrenia. Dr. N. Ch. Michaelides is in charge of these clinics and makes a bi-annual tour of inspection.

During the year trials were made in the use of Sulphanilamide P. and M. & B. 693. The results of this work have been most satisfactory especially in the treatment of chronic gonorrhoea cases.

Propaganda has continued as formerly and the establishment of prophylactic centres has had good results. Twelve centres are in existence at the principal district centres, six being private and six municipal. One of the latter is situated at Lefka, the chief mining town.

Government assists the Municipal centres in the supply of drugs and dressings.

The following table shows the attendances at these centres during the year:—

Nicosia	33,854
Larnaca	7,525
Limassol	28,298
Famagusta	3,590
Paphos	3,152
Total	76,419

New Cases.

Out of 4,613 patients attending all Venereal Diseases Clinics during the year 1939, 2,791 were new patients (1,612 male and 1,179 female).

(a) *Male*: The distribution of diseases among the 1,612 male patients is shown in the following table:—

	Nicosia	Larnaca	Limassol	Famagusta	Paphos	Total
Gonorrhoea only	220	96	142	55	32	545
Syphilis only	163	15	37	12	7	234
Gonorrhoea and Syphilis	1	2	5	—	3	11
Other Venereal Diseases	112	24	62	38	5	241
Non-Venereal or Skin Diseases	413	28	94	49	21	605
Examination not complete	4	10	1	—	3	18
Total	913	175	341	154	71	1,654

(b) *Female*: Out of 1,179 new female patients, 53 were prostitutes and 365 were infected maritally. The distribution of diseases is shown in the following table:—

	Nicosia	Larnaca	Limassol	Famagusta	Paphos	Total
Gonorrhoea only	190	54	110	82	18	454
Syphilis only	84	12	12	6	8	122
Gonorrhoea and Syphilis	11	4	10	8	7	40
Other Venereal Diseases	13	—	13	3	2	31
Non-Venereal or Skin Diseases	407	42	39	19	24	531
Examination not complete	—	14	3	1	3	21
Total	705	126	187	119	62	1,199

Cures.

687 cases have been cured during the year (508 male, 179 female). The classification being as follows:—

	Nicosia			Larnaca			Limassol			Famagusta			Paphos		
	Total Cases	Male	Female	Total Cases	Male	Female	Total Cases	Male	Female	Total Cases	Male	Female	Total Cases	Male	Female
Gonorrhoea	215	151	64	17	12	5	30	29	1	83	46	37	24	18	6
Syphilis	60	38	22	1	1	—	32	26	6	3	3	—	1	1	—
Other Venereal Diseases	126	96	30	14	14	—	46	44	2	35	29	6	—	—	—
Total	401	285	116	32	27	5	108	99	9	121	78	43	25	19	6

TYPHOID.

Small epidemics of Typhoid Fever occurred in Larnaca, Lefkoniko and Morphou. Temporary hospitals were established in Morphou and Lefkoniko to isolate and care for the cases. In the latter area I have reason to believe that the water supply of the town may have been responsible through pollution of the supply by labourers employed to repair damage done to the chain of wells by heavy rains.

The Larnaca municipal supply has always been a source of worry as it has been conveyed to the town partly in open and partly in badly covered concrete conduits and shows highly contaminated almost every time samples are taken for chemical and bacteriological analyses. During the year under review the typhoid incidence in the town of Larnaca has been unduly high and at one period cases were presenting in such numbers that I feared a serious epidemic might result. Fortunately, and possibly on account of emergency measures of a preventive nature, this did not occur and now the supply is being put into suitable pipes at very considerable expense.

A portable chlorinator—the first in Cyprus—was purchased during the year for the chlorination of water supplies, wherever and whenever indicated, and two automatic chlorinators are soon to be installed as fixtures in the towns of Nicosia and Limassol.

Typhoid Fever returns show 716 cases as notified during the year as against 666 cases in 1937 and 621 in 1938.

OTHER INFECTIOUS DISEASES.

Cases of Small-pox, Cholera or Plague did not occur during the year. These diseases have not been recorded in the Colony for a considerable length of time.

A comprehensive survey carried out during the year has revealed that there are approximately 45,000 unvaccinated persons in the Colony. Necessary steps are being taken to intensify the vaccination programme during 1940.

Bacillary Dysentery.—The total number of bacillary dysentery cases notified during the year 1939 was 69 compared with 60 in 1938.

Diphtheria.—Sporadic cases of Diphtheria occurred during the year and 30 cases are reported.

Whooping Cough.—The number of cases notified was 248. This disease has recently been made notifiable.

Relapsing Fever.—One case of this disease has been reported and confirmed by blood smears and is apparently the first case to be recorded. General instructions were issued to all Medical Officers to keep a sharp lookout for further cases.

(c) *Helminthic Diseases.*

Bilharzia	No cases reported.
Ascaris	156
Echinococcus	See below.

This latter parasite is the only one giving rise to serious complications and its manifestations are almost entirely surgical, i.e. in the form of hydatid cysts in various parts of the body (*vide* "Surgical Activities", p. 9).

(c) VITAL STATISTICS.

RETURN OF BIRTHS AND DEATHS IN THE SIX DISTRICTS OF THE ISLAND

(Including the Six Principal Towns).

District	(For the year ended 31st December, 1939.)					
	Estimated population on 30th June, 1939	Births		Deaths		Infantile Mortality per 1,000 Births
		No. of Births	Rate per 1,000	No. of Deaths	Rate per 1,000	
Nicosia	123,275	3,783	30.6	1,459	11.8	93.3
Larnaca	48,161	1,347	27.9	550	11.4	112.1
Limassol	60,704	2,066	34.0	762	12.5	102.6
Famagusta	77,777	2,599	33.4	868	11.1	94.2
Paphos	44,946	1,608	35.7	575	12.7	101.9
Kyrenia	23,510	811	34.4	305	12.9	92.4
Total	378,373	12,214	32.2	4,519	11.9	98.2

RETURN OF BIRTHS AND DEATHS IN THE SIX PRINCIPAL TOWNS OF THE ISLAND.

Town	(For the year ended 31st December, 1939.)					
	Estimated population on 30th June, 1939	Births		Deaths		Infantile Mortality per 1,000 Births
		No. of Births	Rate per 1,000	No. of Deaths	Rate per 1,000	
Nicosia	27,839	580	20.8	379	13.6	74.1
Larnaca and Scala	13,590	283	20.8	184	13.5	113.0
Limassol	17,018	470	27.6	229	13.4	82.9
Famagusta and Varosha	12,431	329	26.4	114	9.1	75.9
Paphos and Ktima	4,844	85	17.5	56	11.5	105.8
Kyrenia	2,325	123	52.9	38	16.3	56.9
Total	78,047	1,870	23.9	1,000	12.8	82.8

(d) HYGIENE AND SANITATION.

REORGANIZATION OF THE SANITARY STAFF.

A scheme for the reorganization of the Sanitary Staff approved and introduced during the year resulted in the retirement of 13 of the aged and less efficient members of the staff and the appointment of better trained young men all of whom had completed their studies at the local school for Health Inspectors, following which several of them acquired the Certificate of the Royal Sanitary Institute. They are now doing duty all over the Island as probationers and will be confirmed in the service only if they pass an efficiency bar.

RURAL DEVELOPMENT SCHEME AREAS.

In 1938 it was decided, following certain experiments of a similar nature in Macedonia and elsewhere, that two areas of 10 villages each should be used for rural development schemes, all Government Departments co-operating directly in the work. The chief Government Departments affected were the Agricultural Department, Education Department, Co-operative Department and Medical Department with a member of the District Administration as executive officer. The work would be largely experimental but it was hoped that it would make useful propaganda if successful.

The areas chosen were one in the central plain in Nicosia District, the chief villages being on the main road from Nicosia to Morphou. The land is moderately fertile but suffers from some lack of water for irrigation purposes in midsummer although having sufficient to cause mosquito-breeding in certain parts. The people are moderately well off by rural standards.

The second area is in the hilly region of Paphos and although not so inaccessible as many Paphos villages more difficult to approach in all weathers than Area No. 1. The inhabitants of this area are not so well off as those of No. 1 although the upper villages have good vineyards. It was, however, intensely malarious and surveys of such a village as Kithasi showed 100% spleen and parasite rates amongst the schoolchildren.

Sanitary conditions have also been improved by the construction of latrines in many houses and by the collection of household refuse in proper receptacles. The provision of latrines has always been a difficult problem owing to past methods of building houses close together and leaving no room for a latrine or because of the close proximity of wells used for drinking water. In certain villages improvement is being made by the provision of piped water supplies.

After a little over a year of experiment the results are encouraging and the villages themselves have expressed pleasure at the progress made.

CHAPTER III.—PORT HEALTH WORK.

Anti-rat measures have been carried out at the principal ports routinely for years and thousands of splenic smears examined with negative finding. However several months ago one such smear from a rat trapped in a shop near the port of Limassol showed bacilli morphologically similar to *Bacillus Pestis*. Rat destruction was intensified but subsequent examinations have all proved negative.

Plans for the new quarantine offices at Larnaca have been approved and it is thought that construction may commence during the ensuing year.

The subjoined table shows the number of visits made by the Medical Staff to vessels arriving at Cyprus Ports and Aerodromes during 1939 :—

Port	Aeroplanes	Steamships	Sailing Ships	Total
Famagusta	—	169	131	300
Zygi	—	7	—	7
Limassol	1	177	152	330
Larnaca	28	164	122	314
Karavostasi	—	102	20	122
Paphos	—	12	106	118
Kyrenia	—	2	6	8
Karpas (Boghaz)	—	2	—	2
Polis	—	2	1	3
Total	29	637	538	1,204

Note.—Visits of His Majesty's Navy and Aircraft have not been recorded.

CHAPTER IV.—MATERNAL AND CHILD WELFARE.

MATERNAL WELFARE.

The training of midwives continued during the year. There is one Government Midwife in Nicosia and two Honorary Midwives stationed at Limassol and Famagusta.

Dr. H. Symeonides conducted the lectures from 23rd October, 1939, to the 17th December, 1939. Examinations were held on the 18th and 19th December, 1939. 13 pupils attended the classes and 10 passed the local examination.

The Government Midwives with their pupils attended to 377 confinements during the year as follows :—

Nicosia, 191; Limassol, 105; Famagusta, 81.

Under the Midwifery Law of 1932, four midwives holding a diploma of a recognized school and one trained in Cyprus were registered.

MATERNITY WARDS.

Cases—	Diseases and complications affecting mother—
(1) Normal 324	Heart disease 2
(2) Complicated 97	Albuminuria 13
— 421	Anæmia 8
Deaths—	Lacerated Perineum 66
(1) of Mothers 10	Placenta Praevia 9
(2) of Infants born alive 12	Post Partum Haemorrhage 8
(3) Still births 56	Ante Partum Haemorrhage 6
Sex—	Diseases and complications affecting the infant—
Male 249	Asphyxia 10
Female 192	
Operations—	
Instrumental delivery 43	
Hysterectomy due to ruptured uterus (on admission) 2	
Cæsarian section 13	

CHILD WELFARE.

Clinics continue to function in the 6 principal towns and are doing excellent work. It is gratifying to note that the existence of these institutions is much appreciated by mothers and expectant mothers who attend regularly for advice and treatment.

CHAPTER V.—HOSPITAL, DISPENSARIES, CLINICS AND LABORATORIES.

HOSPITALS.

There are Government Hospitals in Nicosia and Limassol and State-aided Hospitals in Larnaca, Famagusta, Paphos and Kyrenia. The accommodation in these Hospitals is 393 beds and 23 cots. The total number of admissions during the year was 5,810 as compared with 5,769 during 1938.

NEW NICOSIA HOSPITAL.

Delay in the arrival of supplies ordered from England prevented the hospital being opened during 1939 but as the year ended the building was completed and ready to be equipped and brought into use. It is a splendid hospital, modern in all its details and the first public building in Cyprus to be centrally heated and equipped with lifts. We should be receiving patients there during April, 1940.

MENTAL HOSPITAL.

Statistics.—On the 31st December, 1939, there were 248 patients (163 males, 85 females), whilst on the 31st December, 1938, there were 228 patients (149 males, 79 females) showing an increase of 20 patients (14 males, 6 females).

Admissions.—During the year 65 patients were admitted; of these 44 were males and 21 females. Of the foregoing numbers 13 males and 4 females were cases of re-admission.

Discharges.—Total number 35, divided as follows: discharged recovered 21 males, 7 females; discharged improved 5 males; discharged not improved 1 male, 1 female.

Escapes.—There were no escapes during the year.

Deaths.—During the year 10 patients (3 males, 7 females) died.

Buildings.—On account of the increased number of patients grave difficulties were experienced in providing accommodation. At the end of the year three new blocks, two in the male and one in the female division, were under construction and it is hoped that these will be completed early in 1940.

LEPER FARM.

Dr. Ernest Muir, of the British Empire Leprosy Relief Association, included Cyprus in his tour and arrived here during September. He was able to spend but a short time on the Island but nevertheless examined most carefully all patients and assisted me greatly in various matters connected with the Leper Farm.

Leper Farm—Statistics.

Number of lepers in the Farm on 31st December, 1938	113	
Admitted during 1939	21	
		134
Paroled	6	
Died	6	
		12
Remaining on 31st December, 1939		122

DISPENSARIES.

There are 6 District Dispensaries, one attached to each hospital, and 16 rural dispensaries scattered over the whole Island.

The following figures show the work carried out by these 22 dispensaries:—

Number of new cases	124,943
Number of old cases	148,792
Number of dressings	50,556
Number of prescriptions executed	339,738

EYE CLINICS.

The total work done in connection with these institutions both at the Hospitals and by the Travelling Oculists is recorded in the table of diseases.

There are four Travelling Oculists on the staff who attended the following patients during the year:—

	Larnaca	Limassol-Paphos	Nicosia-Kyrenia	Famagusta
New cases	3,855	1,615	2,623	2,917
Secondary treatments	5,323	4,204	4,021	6,763
Trachoma	1,047	789	234	504
Operations	164	30	47	62

The Honorary Oculists attended the following patients:—

	Nicosia	Limassol	Famagusta
New cases	1,215	1,112	355
Secondary treatments	897	4,838	163
Trachoma	243	355	—*
Operations	11	28	110

* Included in the 504 new cases of trachoma attended by the Travelling Oculist, Famagusta.

DENTAL CLINICS.

This work has considerably increased and is increasing tremendously and that this is so is most certainly due to the keenness and energy of Dr. J. Marcellos, the Government Dental Officer. During 1934 there were but 3 Government Dental Clinics where 27,623 attendances were recorded whereas in 1939 8 Government and 5 School Dental Clinics were in operation over the Island and 45,949 attendances were recorded. Moreover the quality of the work has changed and, in addition to extractions, routine regular treatments and fillings are carried out.

A Dental Section was added to the Polis Rural Hospital during 1939, under the direction of Dr. S. Georgiadou, of Paphos, who attends one day each week.

HOSPITAL DENTAL CLINICS.

	Nicosia & Kyrenia	Larnaca	Paphos	F'gusta.	Limassol	Lysi	Polis	Total
Consultations	6,343	1,883	3,861	3,806	2,031	80	57	18,061
Pyorrhoea	454	47	73	223	26	73	16	912
Disease of mouth	447	71	103	132	24	83	19	879
Operations	4	—	—	1	—	—	—	5
Extractions	5,386	1,757	1,722	2,152	2,142	111	291	13,561
Fillings	1,625	85	216	84	180	110	73	2,373
Temporary fillings	679	206	384	559	426	10	72	2,336
Vulcanite plates	13	2	—	—	—	—	—	15
Scaling	789	9	159	100	70	51	41	1,219
Dental Prosthetic work	4	—	—	—	—	—	—	4
Total	15,744	4,060	6,518	7,057	4,899	518	569	39,365

SCHOOL DENTAL CLINICS.

	English School, Nicosia	Moslem			Orthodox	Total
		Nicosia	Larnaca	Limassol	Limassol	
Consultations	438	703	427	296	2,249	4,113
Pyorrhoea	—	—	—	—	—	—
Diseases of mouth	9	2	—	—	2	13
Extractions	24	405	276	23	1,021	1,749
Fillings	68	128	63	—	204	463
Temporary fillings	22	7	1	21	—	51
Scaling	6	11	16	9	143	185
Total	567	1,256	783	349	3,619	6,574

During the year the services of five Honorary Dentists have been extended to 550 village schools and 24,116 pupils were examined and treated.

6,987 elementary schoolchildren in 146 village schools were examined for the first time and 1,324 were found to be free from carious teeth. The following table shows the percentage of sound and carious teeth in children examined :—

Deciduous teeth :

Sound teeth ..	17%
Decayed teeth ..	83%

Permanent teeth :

Sound teeth ..	78%
Decayed teeth ..	22%

VENEREAL DISEASE CLINICS.

[See VENEREAL DISEASES IN CHAPTER II—(b) INFECTIOUS DISEASES.]

ATHALASSA SANATORIUM.

[See under TUBERCULOSIS IN CHAPTER II—(b) INFECTIOUS DISEASES.]

SURGICAL ACTIVITIES.

During 1939 there has been a general increase in surgical work in all hospitals. The demand for accommodation is one that is quite impossible to meet at present. The confidence of the population in these institutions is very gratifying and is more evident every year. There is a tendency to send the more serious surgical cases to the General Hospital at Nicosia, where all the most modern means of diagnosis and treatment are available. This, though it certainly adds to the work of the staff, leads to much more satisfactory results.

Statistics for Government and State-aided Hospitals are as follows :—

Hospital	Year	In-Patients	Out-Patients	Operations
Nicosia	1938 ..	2,049 ..	28,226 ..	986
	1939 ..	2,083 ..	24,424 ..	1,276
Limassol	1938 ..	807 ..	9,403 ..	558
	1939 ..	859 ..	9,982 ..	337
Larnaca	1938 ..	953 ..	7,163 ..	377
	1939 ..	1,041 ..	8,326 ..	424
Famagusta	1938 ..	753 ..	6,453 ..	260
	1939 ..	718 ..	6,473 ..	398
Paphos	1938 ..	616 ..	3,560 ..	85
	1939 ..	568 ..	3,171 ..	114
Kyrenia	1938 ..	591 ..	2,640 ..	62
	1939 ..	541 ..	3,247 ..	68

All these institutions have been carrying out good work during the year and are visited regularly by the various specialists.

A Philip portable X-Ray plant was installed at Limassol Hospital during the year and is proving of great value in fracture work. Apart from general surgery mention may be made of results obtained in treatment of carcinoma of the cervix uteri by radium and of hydatid disease. Since 1930, some 200 cases of uterine cancer have been treated by radium and carefully followed up. Those alive and well at the end of a period of five years represent about 48% of the total, a satisfactory figure. As regards the surgery of hydatid disease during the year under review, a modified technique has been adopted. Instead of drainage after removal of the endocyst, which has been the more general custom, we have in nearly every case, completely closed the ectocyst, with or without partial resection, and are entirely satisfied with the results.

During 1938, 986 major operations were performed at Nicosia whereas during 1939 the number rose to 1,276 and with further space in the new Hospital, which is about to be opened, these figures will rise steadily.

GOVERNMENT PATHOLOGICAL LABORATORY.

The work during 1939 was much the same as in 1938, the total number of specimens examined excluding medico-legal ones and autopsies being 10,345 as compared with 15,035 in 1938, 15,699 in 1937 and 10,031 in 1936. The apparent fall in the number of specimens seen during the year is due to the decrease in incidence of meningococcal meningitis and the consequent smaller number of swabs examined.

NUMBER OF SPECIMENS EXAMINED EACH MONTH.

January	824	July	831
February	827	August	958
March	1,097	September	931
April	810	October	919
May	836	November	790
June	875	December	647

CLINICAL LABORATORY INVESTIGATIONS.

Blood Films for Malaria Parasites.—350 were examined against 397 in 1938. In 15 *P. vivax* was present^t (27 in 1938); in 15 *P. falciparum* was present (22 in 1938); and *P. malariae* was present in 1 (1 in 1938).

As films for malaria parasites are examined in other places besides the Central Laboratory, these figures in no way represent the incidence of malaria in the Island.

Urine.—799 specimens were examined, as compared with 770 in the previous year.

Sputa.—832 specimens were submitted for examination, against 711 in 1938. In 376 of these tubercle bacilli were found, either by direct examination or by the antiformin concentration method.

In 1938 tubercle bacilli were present in 299 specimens.

Stools.—118 specimens were examined as compared with 99 in 1938. Ova of *Hymenolepis Nana* were found in 1 and of *T. saginata* in 1; and cysts of *amoebae Histolytica* in 1. *B. typhosus* and *B. dysenteriae Flexner* were isolated once each.

Urethral and Cervical Smears for Gonococci.—625 were examined (817 in 1938). The gonococci were present in 214 (241 in 1938).

Smears from Spleens of Rats for presence of B. pestis.—409 were examined (396 in 1938). Bipolar staining bacilli like *B. pestis* were found in one smear. The stain used was watery methylene blue for $\frac{1}{2}$ minute. No culture could be made as the smears are made from rats caught at the various ports.

Blood Cell Counts and Differential Counts.—174 were made (120 in 1938).

Leprosy.—184 nasal scrapings (128 in 1938) and 29 skin clips (23 in 1938) were examined for *M. leprae*. 127 nasal scrapings and 12 skin clips were positive to leprosy.

Cerebro-spinal Fluids.—196 were examined (276 in 1938). Meningococci were present in 40 (121 in 1938). Pneumococci in 12 (16 in 1938). Acid fast bacilli in 4 (none in 1938).

Naso-pharyngeal swabs.—1,665 were examined (6,331 in 1938). Meningococci were present in 6 (283 in 1938). Diphtheria bacilli in 39.

Eye-Swabs.—4 were examined; 1 was found positive to diphtheria bacilli.

Swabs for Gonococci (from vagina).—Two were examined.

Cultures for identification of Organisms from Pus.—17 were examined (32 in 1938).

Blood Cultures.—19 were done (16 in 1938). *B. typhosus* was grown in 2 and *B. paratyphosus B* in 1.

Cervical Gland (bacteriological).—One was examined.

Epidermis Scraping (bacteriological).—One was examined.

T.A.B. Vaccine.—8 litres (4 in 1938) were prepared and distributed through the Health Branch.

Autogenous vaccines.—5 autogenous vaccines were prepared.

Other Fluids.—29 were examined.

Bile.—12 were examined. *Giardia lamblia* were found in 1.

Complement Fixation Tests.—The Wassermann Reaction was carried out on 3,663 sera (3,613 in 1938); 486 of these were completely positive, and 51 partially positive.

The Weinberg test for hydatid disease was carried out on 11 sera of which 2 were positive.

Agglutination Tests for Typhoid Group.—828 sera were examined (643 in 1938); of these 341 were positive to *B. typhosus*, 52 to *B. paratyphosus A* and 98 to *B. paratyphosus B*.

Blood ureas.—42 were done.

Urinary Calculi.—1 was done.

Blood sugars.—33 were done.

Drinking Waters.—190 were examined (187 in 1938).

Blood grouping.—1 was done.

Cheese.—3 were done.

Blood Urobilin.—1 was done.

Histology.—114 specimens were examined.

Vomit.—1 was done.

THE GOVERNMENT CHEMICAL LABORATORY.

The total number of samples analysed was 1,790 as compared with 1,043 in the previous year. This increase is mainly accounted for by an increase in the number of Food and Drugs samples from 612 to 953 and to a large number of milk samples sent from Athalassa Stock Farm.

The samples for the year 1939 are divided into official and non-official samples, and classified under the different headings shown in Tables I and II.

TABLE I.
Official Samples.

Food and Drugs	953
Criminal	107
Waters	76
Agricultural	488
Customs	19
Miscellaneous	89
Total	1,732

TABLE II.
Non-Official Samples.

Animal Viscera	31
Waters	10
Sugar	9
Olive oil	3
Wrappers	2
Salted fish	1
Milk	1
Rice	1
Total	58
Total Table I	1,732
Grand Total	1,790

The samples falling under the different headings are considered in detail in the following sections.

1. FOOD AND DRUGS.

Table III shows the total number of samples analysed and the percentage of adulteration found in each of the six Districts into which the Island is divided for the purpose of the administration of the Food and Drugs Law.

TABLE III.

<i>District</i>	<i>Samples Analysed</i>	<i>Genuine</i>	<i>Below Standard</i>	<i>%</i>
Nicosia	262	216	46	17.5
Famagusta	302	247	55	18.2
Larnaca	104	68	36	34.6
Limassol	169	154	15	8.8
Paphos	65	61	4	6.1
Kyrenia	51	46	5	9.8
Total	953	792	161	16.89

Olive oil as in previous years constitutes a large proportion of the samples found to be below standard. Owing to the poor harvest of oil during the year under report it is not unlikely that there will be a still higher proportion of adulteration of this important article of food. The wide difference in prices between olive oil and foreign oils furnishes another reason for adulterating olive oil with cheaper vegetable oils.

Of the 69 unsatisfactory samples, 18 had an acidity higher than the limit laid down by the Regulations, and 51 were mixed with oil foreign to olive oil.

The increase to 254 in the number of fresh milk samples from 26 in the previous year shows a step in the right direction, but it is still not enough to be considered representative. Of the 24 unsatisfactory samples 18 were found to contain added water and 6 were deficient in fat.

Evidence was given in Court on five occasions in connection with prosecutions under the Food and Drugs Law. The number of prosecutions brought before the Court during the year was 121 and the fines inflicted amounted to £91. 5s.

2. CRIMINAL INVESTIGATIONS.

A total of 107 exhibits were examined in connection with criminal cases, classified in Table IV.

TABLE IV.—*Criminal Exhibits.*

Exhibits in murder and stabbing cases	27
„ rape and assault cases	38
„ poisoning cases, and poisons seized from unauthorized persons	8
„ Dangerous Drugs	9
„ maliciously killing animals	6
„ house-breaking and robbery cases	14
„ bestiality cases	3
„ counterfeit coins	1
„ explosives	1
Total	107

The number of exhibits submitted in criminal cases shows a further decrease compared with 163 exhibits of the previous year.

3. WATERS.

The number of 76 samples of water examined during the year shows a decrease compared with 124 samples of the previous year. Only 36 samples were found to be chemically satisfactory, the other 40 samples were either contaminated with organic impurities, hard, or saline, or a combination of these.

**PRINCIPAL CAUSES OF DEATHS WITH TOTALS IN GOVERNMENT AND
STATE-AIDED HOSPITALS.**

(a) GENERAL SYSTEMIC DISEASES.

	<i>No. of Deaths</i>
(1) Digestive system	36
(2) Respiratory system	37
(3) General and Other Diseases	114

(b) COMMUNICABLE DISEASES.

	<i>No. of Deaths</i>
(1) Influenza	—
(2) Other Diseases	48
(3) Tuberculosis	43
(4) Meningitis	38

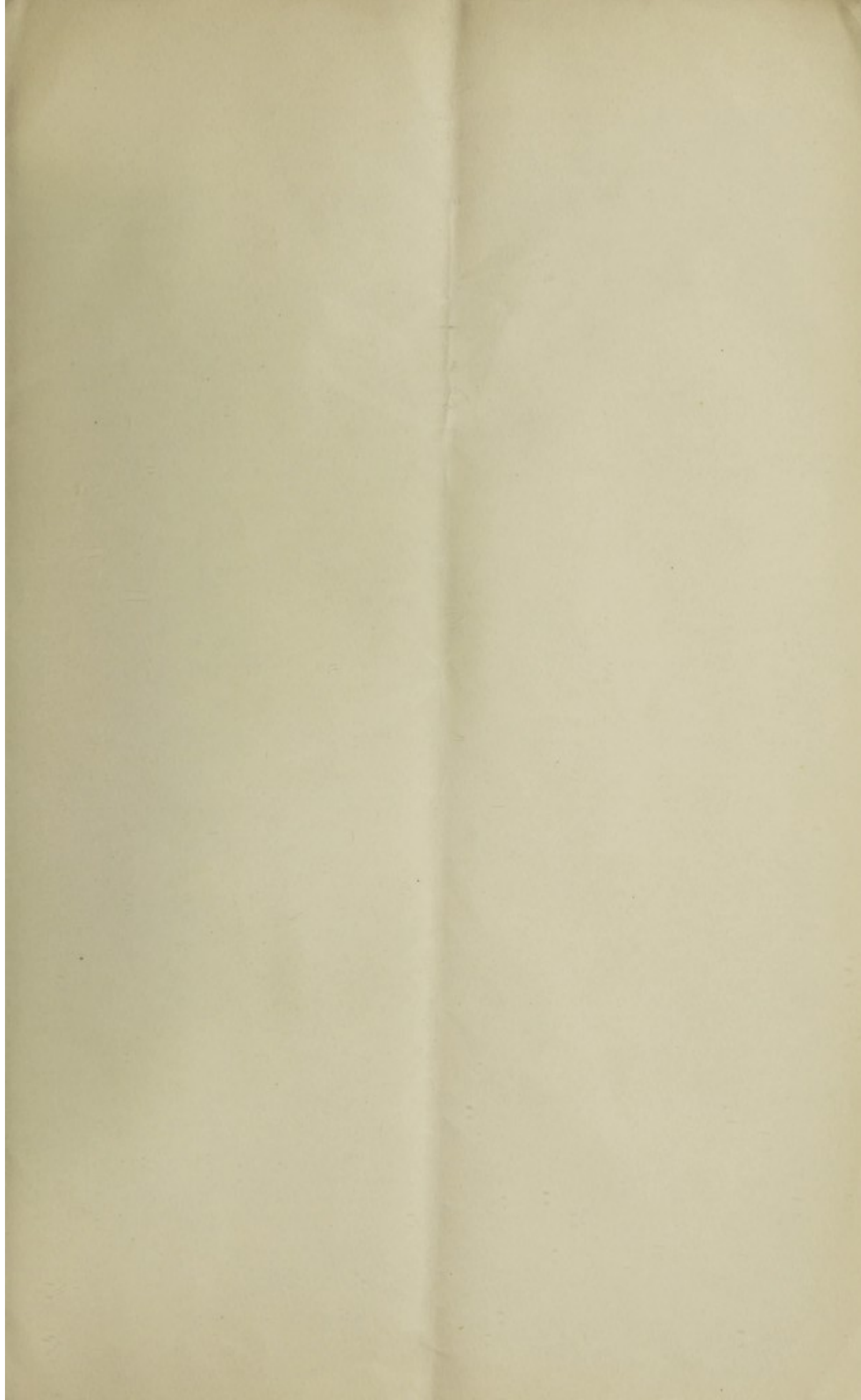
CHAPTER VI.—TRAINING OF LOCAL MEDICAL AND HEALTH PERSONNEL.

During the year the school for Sanitary Inspectors carried out the usual course and 9 candidates satisfied the Examiners and obtained the Certificate of the Royal Sanitary Institute.

Nine pupil midwives were registered following upon an examination held by the Department. One Chemist and Druggist was registered.

ERROL A. NEFF,

Director of Medical Services.



2